Appendix Q

Individuals Comments

1512 west 125th street
Los angeles, CA 90047
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I am a 10th grader attending Mira Costa and I believe that the drilling in Hermosa Beach isn't the right thing to do in this community. ALEC-1 Even though I do not live in this city I often visit the beach. Therefore I express empathy for the residents who want their beach community a clean and safe environment. Hermosa Beach is a lively and very proactive city. The main attraction for people is their beach, a place to get away from busy life and just relax. So why begin a major drilling project in such a place to ruin the community in ways that cause air pollution, a destroyed marine life, and increase in daily traffic. ALEC-2

One effect of the drilling in Hermosa Beach is the cause of air pollution. As this drilling project is taking place out in the ocean, there are many air contaminants that are being emitted through the oil and gas process straight to our atmosphere. Also as we remember the "bp oil spill" in 2010, oil spills are common during these major drilling projects out in the sea. During an oil spill there is a huge percentage of methane being transmitted into the air. Another factor of the air pollution is all the trucks carrying materials in and out the site of the project . All of these combined not only ruin our air quality, but also speeds the climate change. ALEC-3

Another effect of the drilling in Hermosa Beach is damage to the marine life. Pretty much the worst thing to occur during these projects is an oil spill. The oil spills can travel quickly through the water causing toxic waste to infect a wide range a sea life. Toxins such as mercury, lead, and cadmium are spread to all marine organisms, this could eventually affect our seafood supply. Also, each oil platform discharges hundreds of thousands of gallons of toxic water daily. So oil drilling holds a serious risk to the environmental and economical health of our ocean resources and costal communities. ALEC-4

The last effect of the drilling in Hermosa Beach is the increase in daily traffic. Hermosa Beach is already a crowded city that has traffic issues. With living in between Mira Costa High School and Redondo Union High School mornings and afternoons are hectic for drivers. So with the addition to all the trucks for the oil drilling project traffic will become more of a problem. This will cause residents in the Hermosa Beach community to become irritated and start having complaints. ALEC-5

Now someone that may be for the oil drilling in Hermosa Beach will say that it will lower the cost of oil consumed by the people. The reason why is because it will give us a larger supplier of oil in which the cost will go down. Also they will say that it will reduce the cost for energy.

To go against that we can find evidence from the Department of Energy. Oil drilling will not lower the cost of energy, reduce our dependence for foreign oil, or create millions of new jobs the way that clean renewable energy will. Instead of just constantly drilling and always depending on oil we should start searching for cleaner, renewable, and sustainable energy sources for the world. ALEC-6

Yours sincerely,

Cameron Alexander

Terri Dinubilo

From: Rubie Amaya <rubieamaya6@gmail.com>
Sent: Monday, March 17, 2014 11:27 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input to Drilling in Hermosa

1805 23rd Street
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

There has been many arguments about the oil drilling project you are trying to work on. Many people agree with what you are doing and others do not, but their reasons are valid. As are mine. The purpose of this letter is not to bombard you with negative words or to annoy you with more arguments about your decision on drilling. The main point of this is to show you how you will not only be affecting the city of Hermosa but the health of people and animals, cause disturbances in the city and cause more effects on Global Warming. See comments below

Health precautions are important in any type of experiment, but it's almost certain that your company knows that. The impact of this project would cause harm to humans and animals living in the ocean. For example, pipes are made to secure the oil within them, however accidents do occur. There has been situations where pipelines have broken down and caused oil spills in the ocean like the oil spill in Kalamazoo River in Michigan. The effect these oil spills have on the Earth is huge. Animals can be poisoned by the chemicals in the oil and the ocean will be even more polluted. Another thing that could happen is if there is an oil spill the people that are cleaning up the spill would be exposed to the harsh chemicals as well and who knows what those chemicals could do to them. If you are drilling oil and it happens to rain, what will happen? The water will be carried out along with the chemicals and could contaminate plants or anything edible. AMAR-1

Hermosa Beach is a beautiful city with great people. If the drilling does happen then the community would become more of an oil based city with factories and machines and under construction all the time. Population would most likely decrease and who would then help your company grow? Residents would also start to give you a bad reputation because you would pay them money to drill oil but would give them a long time of disturbance. I doubt anyone would want the money anyway if they knew that they were going to be bothered so much. AMAR-2

There is a huge controversy on Global Warming and the things we do to make it even worse. This is one of the biggest reasons of Global Warming. The oil you are drilling is for cars, the gas would just create more carbon dioxide in the earth and too much carbon dioxide is bad for the earth. The carbon dioxide makes the earths atmosphere temperature increase which would again be bad for the Earth. Instead of drilling for oil, scientists now are making new cars that run on hydrogen gas, which will be better for everyone. AMAR-3

Then again, what if all that I am saying is incorrect? It can't be. Oil is never really a good thing if it is being used as gas because in the end it'll just end up polluting the air. Not only can chemicals be washed out into the ocean but if not all of it is cleaned then what can happen? Who plays in the ocean? Children, the people that are creating the future and they could be in danger. Hermosa would no longer be Hermosa. The literal meaning of Hermosa is beautiful, but do you think it would still be the same if all these projects went on? Absolutely not.

Overall drilling for oil would not be beneficial for many people. Sure it would benefit the company, but it would also give them a bad reputation for destroying such a beautiful place. The drilling should not take place because it would cause harm to many around us and our friends in the ocean. Thank you for taking the time in reading this letter. I hope you take these thoughts under consideration. AMAR-4

Yours sincerely,
Rubie Amaya

1545 5th street
Manhattan Beach, CA 90266
March 14, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I am writing to you regarding the controversy of oil drilling in Hermosa beach. I, a Manhattan Beach resident, am totally for the installment of Oil drilling in Hermosa Beach's infrastructure.

Addressing the issue of Hermosa Oil Drilling by E&B, I not only urge the education of ourselves in this controversy, but also advocating the education of citizens. We need to understand the reality of this project before we go about campaigning against it. Many citizens bring up the issue that the plant is not federally forced to be "safe" or "clean". But the plant and the company, if you read into it, are taking the necessary precautions to ensure no accidents and safe for the surrounding environment.

ANIC-1

Also, for moral reasons, why would we allow other communities and the rest of the country to produce energy for us? We need to be responsible for our energy and set a precedent in the area that taking initiative is possible to become sustainable in the future.

Allowing corporations to drill oil here will create an economic increase in the region. More jobs will be created and more money will be pumped into the economy. Drilling local oil is what we need to do for the national effort to lower oil prices.

I am writing to you with a sense of urgency to ensure the reality of this situation is being understood. I understand there is some downfall to this event, but it is something that we have to overcome as a community and it will pay off in the long run.

Yours sincerely,

Chris Aniello

-----Original Message-----
From: Jeff Arey [mailto:jeff@arey.us]
Sent: Tuesday, April 01, 2014 7:23 PM
To: Oil Project
Subject: baseline of current organic wastes in Hermosa beach

Please provide an estimate of the tons of feces and gallons of urine being deposited in Hermosa Beach west of Pacific Coast Highway between Herondo St and Pier Avenue in the next ten years. I am not keen of adding risk of oil spills in Hermosa Beach, but when thinking about how every light pole and corner on the Strand is soaked in urine I am wondering if these ecological factors are being considered when promoting Keep Hermosa. AREJ-1 What is the estimated number of dogs residing in the area west of PCH, between Pier Avenue and Herondo St? People need to understand the real significance of our ecological issues and not be blindly biased by naive environmentalist activist. AREJ-2

Please also publish daily noise amplitude statistics present on the corner of Valley Drive and Herondo St. I am wondering how many decibels the oil drilling truck traffic will be compared to the present level of truck noise on Herondo St. Also is there a noise ordnance that prohibits cars and AREJ-3
motorcycles without mufflers? Car alarms are tripped on Herondo St when

motorcycles cruise the beach; so what is the significance of the oil traffic noise compared to the Harley's cruising the beach?

Please provide response to the following environmental occurrences:

1. Estimated number of gallons of urine deposited on the Strand between Herondo St and Pier Ave in the next ten years.
2. Estimated number of tons of feces deposited on the Strand and Greenbelt between Herondo St and Pier Ave in the next ten years.
3. Estimated probability that a comparable amount of barrels of oil will be spilled in ten years of oil drilling operations in the same area.

Addendum to AreJ-1

3. Average daily noise level on the corner of Valley St and Herondo St.
4. Peak decibel noise level on the corner of Valley St and Herondo St.
5. Estimated average daily noise level on the same corner expected during phase-one oil drilling operations.
6. Estimated peak decibel noise level on the same corner expected during phase-one of oil drilling operation.

Addendum to AreJ-3

Jeff Arey
447 Herondo St
Hermosa Beach

Terri Dinubilo

From: Kian Arnold <hockeydogz@gmail.com>
Sent: Monday, March 17, 2014 5:16 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Hermosa Beach Drilling

717 29th St.
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I am writing this letter to simply state my opinion on a local environmental issue, The Hermosa Oil Drilling. Being a nearby resident I feel the need to inform you all how I feel. I am currently a student at Mira Costa High school. On my freetime I enjoy going to the beach and hanging out with my friends. I believe that the drilling in Hermosa should not occur because we live in a beautiful place and should keep it that way. ARNK-1

The first reason, and one of the main reasons I believe it should not occur is because our community and coast is stunning and adding oil rigs and plants would destroy a majority of its aesthetics. My whole life I have had the opportunity to see Hermosa beach the way it currently is. I hope it will be the same for my kids someday, not overloaded with tankers, smog, and oil rigs. Hermosa is a very peaceful and laid back community. When you add noisy twenty-four hour drilling running constantly, it is not a promising combination. ARNK-2 ARNK-3

Another reason why Hermosa should oppose the drilling is because E&P's company hasn't been 100% successful with other projects in California. From 2007-2012, only five years, there has been 15,937 gallons spilled on the coast. That is an average of a reported spill every four months. Personally I don't think it is fair to put our local sea life and the environment at such a great risk. ARNK-4

My final concern is that the drilling will cause Hermosa to be overloaded with construction and noise. It will become one giant construction site, clogged with traffic, noise, and pollution. Hermosa is already a little tight when it is a matter of traffic. Having huge work trucks with loads of materials for construction with bring absolute havoc and disorder to the entire community. That sounds unpleasant without even mentioning the amount of noise created from the construction. ARNK-5 ARNK-6 See ARNK-5

The members of the community who support drilling do have their reasons, for example the profit that Hermosa will receive is substantial. $500 million dollars guaranteed over the course of the entire project. Though it is a logical reason to be all for that kind of money, it is more of a matter of compromise. You can choose to accept it, and over time benefit in wealth, all while managing to destroy a community and possibly even an environment. It is a matter of moral compromise and to me, not a very smart compromise. But another critical reason is that that amount of money is unnecessary, Hermosa already recently stated in a financial condition report that they are doing just fine without the profit of the oil company. ARNK-7

in the long run and big picture it just doesn't weigh out. Hermosa needs to remain Hermosa, why should we become an industrial mess, we are a beach town. The pro's just do not compare to all of the cons that come with it. I would like to thank you for taking the time to read my opinion on this subject. ARNK-8

Yours sincerely,

Kian Arnold

RECEIVED
APR 03 2014
COMMUNITY DEV. DEPT.

April 2, 2014

Ken Robertson
Community Development Department
1315 Valley Drive
Hermosa Beach, CA 90254

Dear Mr. Robertson,

In response to the Draft Environmental Impact Report, I write to you to express my concerns regarding several statements and the lack of sufficient and current research reported, mainly in the Biological Resources section of the DEIR. Because of the risk of an oil spill being 34% (as described in Section 4.8, Safety Risk of Upset and Hazards) and results of such a spill to be disastrous, it is even more important to provide thorough, current and accurate information to the citizens of Hermosa Beach, as well as the surrounding communities who will also be dramatically affected by the one in three chance that oil will cover our prestigious coastline from Palos Verdes to Malibu and possibly further. BACK-1

To begin:

On page 4.3-2 to 4.3-3 of the Biological Resources, Onshore Resources, Sandy Beach, the DEIR does not discuss the western snowy plovers (*Charadrius alexandrinus nivosus*) which roost all over the Santa Monica Bay. This is a federally endangered species found in both North and South Hermosa. In fact, in 2012 the Federal Register (Department of Fish and Wildlife) increased the critical habitat for the snowy plover from 10 acres to 27 acres specifically on our Hermosa beaches. This stretch of beach has supported an average of 25 Pacific Coast western snowy plovers between 2003 and 2012 further strengthening the decision to protect this stretch of land. This location contains physical and biological features essential to the conservation of the species. How will this threatened species be affected by an oil spill? I request that a BACK-2

comprehensive and robust analysis of impacts to local nesting shorebirds be added to the EIR. Please include any proposed projections of impacts on water quality and habitat in case of an oil spill. BACK-2 continued

On page 4.3, 4.3.1.2 Biological Resources, Offshore Resources, Marine Birds it states "few, if any, seabirds nest on the mainland coast of the Southern California Bight" which includes the Santa Monica Bay. Both beaches and other intertidal zones of Santa Monica Bay are important nesting and feeding grounds for migratory waterfowl and shore birds such as egrets, herons, gulls, terns, sanderlings, and plovers (CRWQCB, 1997). In fact their has been a resurgence of nesting bird populations due to the increased protection of these species, including the federally endangered California least tern. In a report prepared by the Santa Monica Bay Restoration Project to the California State Coastal Conservancy in November 2011, over 200 seabirds birds were identified and documented in the South Bay as either "nesting confirmed" or "breeding activity observed." How will these birds be protected from an oil spill? I request that a comprehensive and robust analysis of impacts to local nesting shorebirds be added to the EIR. Please include any proposed projections of impacts on water quality and habitat in case of an oil spill. BACK-3

On page 4.-12, 4.3.1.3 Biological Resources, Rare, Endangered and Special Status Species it states that the blue whale is only "rarely" sighted. In recent years my family and I have observed many whales directly off Hermosa Beach shores, including the rarely seen blue whales, orcas, grey and humpbacks whales. The report also states that these endangered animals are generally found "far off shore." However, I have personally observed whales with my naked eye from my house, 4 blocks away from the beach. Because of the considerable ecological diversity of our outer shores and the complex food web ecology of the Santa Monica Bay, the State of California has designated areas on Palos Verdes peninsula and on Pt. Dume and Malibu as marine protected BACK-4

sanctuaries (MPA's). These MPAs and the network created across the State ensure the protection of these historic mammals. And since this designation, there has been an increase in these sightings. How will an oil spill affect the number of sightings and the health of these mammals? BACK-4 continued

On page 4.3-1, 4.3.1 Onshore Resources, the list of species is extremely understated. How is it possible to list the abundance of birds near the project area by simply doing a 1 day observation (October 23, 2013)? Several rare birds have been identified on the Greenbelt, including but not limited to Peregrine falcons (formerly endangered), white-tailed kites, American kestrels, red-tailed hawks, night herons and owls. These animals forge for food and nest on the Greenbelt. I request that current bird sightings and documentation be gathered from reputable organizations such as the Audubon Society, who has decades of information on both migratory and resident birds found in the South Bay. BACK-5

Lastly, it is well documented that artificial lighting has a negative impact on certain animals. Exposure to lighting durations beyond normal limits can impose disruptive affects to their reproduction. Similarly, illumination levels affect both the behavior of predatorsand also prey. This would adversely affect nocturnal birds and mammals including bats close to the project sight on the Greenbelt, that will be illuminated 24 hours a day. I request that a comprehensive and robust analysis of impacts to resident and migratory birds, including raptors as well as bats and other mammals be added to the EIR. Please include any proposed projections of impacts by noise and light pollution and habitat degragation due to an oil spill. BACK-6

I conclude that Hermosa Beach is a part of the greater Santa Monica Bay community that has strived to protect the natural diversity and abundance of marine life and the structure, function and integrity of marine ecosystems. We continue to help sustain, conserve and protect terrestrial life populations and rebuild those that are depleted. Protecting the biodiversity of all of Hermosa Beach will ensure a strong natural BACK-7

heritage and build a greater appreciation of the last remaining open space in our city and its surrounding waters.

BACK-7 continued

Thank you for your time.

Katrina Bacallao

From: Nanette B. Barragan [mailto:nbarragan@alvaradosmith.com]
Sent: Monday, April 14, 2014 2:21 PM
To: Oil Project
Cc: Ken Robertson
Subject: DEIR COMMENTS.docx

My comments concerning the draft environmental impact report. Please confirm receipt.

Thanks.

DEIR COMMENTS

Executive Summary
1st paragraph – says "impacts of a Proposed Oil Development Project" – doesn't this include "gas"? Recommend changing to read "Proposed Oil & Gas Development Project". As currently used, it can be misleading to the reader into thinking this is only an oil project. BARN-1

throughout summary – again only says "Oil Development" – believe this does not sufficiently describe the project, fails to inform the reader of the "gas" aspect of the project. BARN-2

Throughout the Executive Summary the word "spills" is used but it insufficiently makes clear what is being discussed is "oil spills". Recommend adding the word "oil" to read "oil spills" will be more accurate and correct any current ambiguity in the DEIR. BARN-3

The Land Use Section (ES-9) in the Executive Summary is vague – "close proximity to land use zoned as open space and residential." To better inform the reader, how about being more specific to provide example of some of the open spaces (i.e. "close proximately to land use zoned as residential and as open space, such as parks, baseball fields and the Greenbelt.") This will better illustrate the importance of this significant and unavoidable impact, which is currently general and insufficient stated. BARN-4

Noise section (ES-10) states that noise levels when drilling is not occurring during Phase 2 and 4 would be less than significant. Per the CBA in order to reach maximum oil production re-drills will be required and thus have up to an additional 6 years of noise and pollution levels that are significant. The DEIR fails to make this clear and is minimized in the DEIR. Accordingly, I believe this and the issue of re-drills is misleading whose impacts are not sufficiently outlined and considered in the DEIR. BARN-5

Recreation section (ES-10) discusses a potential oil spill that could flow into the ocean but won't this spill have the potential to impact more than the Hermosa Beach waters/coast? Given oil's inability to stop at the Hermosa Beach border, the summary fails to sufficiently describe the potential impact to nearby beaches and the entire Santa Monica Bay. BARN-6

Safety and Risk of Upset (ES-10) headline. Most casual and nonscientific DEIR reading residents will not know what upset means. This headline fails to convey to the reader the potential impact. This heading should be relabeled what it discusses, a blowout – "Safety and Risk of a Blowout" BARN-7

Alternatives to Proposed Project – The summary for this section is insufficient in that it is not clear. Is the purpose of this section to merely provide alternatives or to BARN-8

as some have stated to recommend no "No Project". Even after reading the section, I do not think the DEIR is not clear on this point. My understanding is that if the recommendation is "No Project", CEQA requires an alternate proposal, hence the statement that the AES site is the environmentally preferred alternative. Suggest having this section be written in plain English so a reader does not need to deduce the conclusion – and this should be clear in the executive summary.

BARN-8 continued

Table ES.2

Aesthetics – column "Operations" states views of the drilling/workover rig will not be significant unavoidable impact. It has a NO*, the asterisk mentions that that there may indeed be a significant unavoidable impact while the workover rig is up. To better inform the reader I suggest the column be re-written to read "NO/YES*" to prompt the reader to understand that there will be a significant unavoidable impact for some period and not for another period. Additionally, the CBA provides that in order for the oil company to receive maximum oil production to reach the estimated higher levels of revenue (about $220million over the life of the project), E&B will need to proceed with re-drills which are expected to potentially add 6 years of significantly unavoidable impacts re air quality and aesthetics. The footnote should also include this fact – that the impact will be significant and unavoidable during this period as well (including for the air quality portion of the chart).

BARN-9

Inadequate Photos/renderings to Show Impacts

It is my understanding that the DEIR is suppose to give readers sufficient information to imagine and understand what is being proposed. I believe the photos of the workover rig in the DEIR are insufficient. I have experienced the workover rigs at E&B's Huntington Beach facility and have seen the workover rigs first hand. The workover rig is much more visible than the renderings in the DEIR. In the DEIR the workover rig looks almost invisible (in reality, workover rigs are thicker than what appears in the DEIR renderings and they have oil on them so they are not simply white, plus the workover rig photos in the DEIR do not have an American Flag at the top as in E&B's other location in Huntington Beach).

The DEIR also does not include photos of what some of the equipment looks like, this should be included to better convey what will be at the project site. Many residents are unaware that the big storage tanks will be onsite here in Hermosa Beach. To be completely transparent in providing information to readers, it is suggested that a photo of the large storage tanks be included along with photos of other equipment.

BARN-10

Workover Rigs

On the issue of workover rigs, E&B has had up to 2 workover rigs at the same time at their Huntington Beach facility (photo available if needed).

The DEIR does not sufficiently consider the impacts if there will be 2 workover rigs here in Hermosa Beach. The DEIR is insufficient for failing to consider this possibility and include these impacts. Assuming, the applicant advises there will only be one workover rig, where in the application is that listed and who would

BARN-11

enforce this so that 2 may not be used. (and if two can be used, the photos/renderings should be updated to show what 2 workover rigs will look like). BARN-11 continued

Section 4.2

This section discusses various air pollutants put into Table 4.2-2. A reader has to toggle between the chart and the text of the section to understand what is being discussed. This is not only inconvenient but difficult to follow and thus recommend spelling out the pollutant to avoid the need to toggle back and forth to figure out which toxic chemical is being discussed. This would help ease reading and better increase understanding and make the document easier to read. BARN-12

Also in this section, one of the most important sections of the DEIR, it takes 37 pages to talk about background (.ie. wind patterns, general pollutants background, etc) before the most important information is provided at page 38 about the dangers of the pollutants specific to this project. Again, it is not until page 38 at 4.2-38 are the dangers of the pollutants hidden in the section, "Emissions of NOx would exceed the regional significance . . . Onsite emission of PM10 and PM 2.5 would exceed localized significance thresholds" The pollutant should be spelled and the this critical information should be more prominent, instead of hidden among text (bolded or emphasized). Further, this danger should be upfront in the section even if briefly described before proceeding with 37 pages of background and to help the reader identify the danger up front. BARN-13

Further, the sentence in quotes does not adequately describe what it means to have PM10 and PM 2.5 exceed localized significance thresholds. The impact should be spelled out. Right now a reader has to go back and look for a chart that describes the pollutants and once the chart is located then needs to read the impacts column. BARN-14

This is not reader friendly and makes it difficult for a reader to find out what is being concluded. As written, the section insufficiently describes the impact, please re-write this section to be straightforward and easier to read and understand (not requiring back and forth flipping and require the reader to fill in the blanks or add up two different sections/charts). BARN-15

Important but Hidden Facts/Findings Insufficiently Highlighted & Discussed

There are other sentences in this section that are hidden and fail to elaborate in plain English what the impacts are and their significance, including, "Localized impacts associated with the Phase 4 operations would exceed the thresholds for PM and would be considered significant." (4.2-48) A reader again has to figure out what PM is and what is the significant impact.

"Inhaling 100 ppm of H2S can be lethal according to Emergency Response Planning Guideline . . it is possible that it could range up to 100ppm because the gas plant would be designed to process gas with up to 100ppm H2s." (page 4.2-50) This important fact and finding needs to be more prominently placed and highlighted so easy for the reader to find, whether it be a heading or included in a chart with the quote to the right to make sure the casual reader will see these important facts. This important finding should also be mentioned in the summary given it's importance. Suggest revisions to highlight and make easier to find. BARN-16

Section 4.2-52 (Residential Impacts) concludes that odors will be a significant and unavoidable impact given the close proximately of 20 feet of the oil drilling activity to the public sidewalk. What is missing from this section is discussion about what the impact of these odors will be on the children in South Park, the Greenbelt and Clark field. Will these odors pose any safety risks to them while they run around the bases, play soccer and swing on swing-sets? If so, these impacts should be added to this section. BARN-17

Carbon Neutral
The DEIR fails to provide sufficient analysis of the cities commitment to carbon neutrality and how this project will impact that Top Priority outlined in the city's strategic plan. One sentence to say the Applicant shall provide credits is insufficient. Additionally, there is insufficient discussion about what "credits" are and how they work. How will a huge increase in energy use for the electric drilling and equipment impact our carbon neutral goal? (plus added air pollution, etc) BARN-18

Finally, can a city be leading edge in carbon neutrality and conduct oil and gas drilling in its 1.4 sq mile area? The DEIR lacks discussion of this impact. Accordingly, as currently written this section fails to consider these important impacts and thus insufficient (ES4.2-56) BARN-19

Stacking Equipment
When I toured the Huntington Beach facility and asked how the oil company would be able to fit what they have at the location on two separate large pieces of land into one 1.2 acre land in Hermosa Beach, the plant manager told me they would likely need to stack equipment. Given the DEIR's use of coded words, I was unable to locate the discussion about the safety and impact of stacking of equipment. If this information is not included, it is lacking along with potential safety issues and any mitigation measures. BARN-20

Redrills
Section 4.2.5 page 4.2-68 talks about GHG emissions and electricity use but does not consider the 6 years of re-drills necessary for the oil company to obtain the high end of production to maximize revenue. As such the assessment and impacts regarding redrilling is insufficient (here and overall in the DEIR). BARN-21

Public receptors (4.8-1 and throughout) – a majority of people will not know what this references. Can these references be replaced with a more common term to assist the casual reader? How about using the word people/humans, if this includes animals, can it be spelled out to assist the reader to get a better understanding. BARN-22

4.6-1 Agency Response section mentions that pipelines routes will pass through Hermosa Beach as well as Redondo Beach and Torrance. Where are the potential impacts to these two neighboring cities discussed and will they weigh in on the DEIR since this project's pipelines pass through those cities. And will these cities receive compensation from the existing CBA projected revenues currently assigned to Hermosa Beach? BARN-23

Will the mutual aide agreements be impacted by this project, such as higher cost for Hermosa Beach given the greater risk. BARN-24

The DEIR provides that Hermosa Beach is effectively on its own if there is a hazardous material incident, backed up by the County of LA Fire Dept yet the mutual aide agreement does not currently apply to the County, does it? Can you please make this more clear.
Also, does this mean Hermosa Beach will need to enter into a new agreement with the County (LAFD)? BARN-25

What are the response times for LA Fire County and how will that impact homes who will be immediately impacted by a hazardous spill, those closest to the drilling site (in event of fire, explosion, spill). I see there is a chart that indicates LACDF #18 from Inglewood has a 17 minutes response time, does this mean that this would be the first available LAFD backup? And how many units are available at that location? In the event they have 2 units and both are occupied then what? This section leaves conclusions to be deduced as opposed to just saying what the impact will be. BARN-26

Additionally, what good is the mutual aid agreement with Manhattan Beach and Redondo Beach if they will have no ability to respond to a hazardous spill incident in Hermosa Beach? Again, the conclusions are left for the reader to piece together instead of just stating the potential impacts in plain English. For example, (i.e. Although Hermosa Beach FD has a response time of less than five minutes, the mutual aide agreement between the city of Hermosa Beach and Manhattan Beach will be of limited use in the in event of a hazardous spill/incident given the very limited resources in Redondo Beach of such capabilities. As a result, LA County Fire Department would act as backup assistance. The nearest LA County Fire Department units are located in Inglewood and Rancho Pals Verdes, both of which are estimated to have a response time of 17 minutes. The impact of assistance arriving 17 minutes away has the potential to . . . . .) BARN-27

Report discusses need for increase in fire personnel but where is the cost to upgrade fire facilities to accommodate larger fire department and upgrade fire department infrastructure – not merely cost for additional personnel and training. BARN-28

4.6 Fire Protection and Emergency Response
This section insufficiently identifies the plan that residents need to know what measure will be placed to make sure that the lack of equipment spacing is indeed a less than significant impact, and that fire protection will be sufficient. Considering mitigation measures after the fact is contrary to CEQA. BARN-29

Page 4.6-10-11 discusses LACFD Codes and the requirement to have separation distance from storage tanks, sources of ignition, street, building and schools, etc. Page 4.6-14 lays out conditions that would pose a significant impact for fire protection and emergency response. However, missing from the list is a discussion about the spacing issue that is later discussed and there is no mention or consideration of the purpose of the spacing requirements imposed in the LACFD Codes and across the county. BARN-30

Section 4.6.4.1 discusses the CUP Requirements generally from an old 1993 permit but there is no discussion about the differences in the proposed project to the one upon which the 1993 project was drafted. Are the projects the same, with the same amount of proposed oil wells and water injection wells? It cannot be the same, it's a different project with a different operator. Additionally, the city previously determined the previous project was not fit for the area and would pose a safety risks to residents, hence the litigation. This section fails to address this and fails to inform the reader of any differences. BARN-31

For the remainder of my comments on section 4.6 which I believe is insufficient for reasons further stated in the written and oral comments of Rick Pruetz, I incorporate the issues raised in those comments as my own. BARN-32

Of great concern is that there is no plan in place from the fire chief to lay out what measures will be taken to mitigate the significant impact identified in the DEIR. The DEIR inadequately concludes that the impacts here can be mitigated but fails to provide a plan on how they will be mitigated. It is as thought you list the significant impact of odors and say, a mitigation plan will be put in place to reduce the odors so as to make the impact less than significant -- such reasoning fails to tell the reader what will be put in place to actually mitigate the impact. The same applies here. The fire chief indicated he would not have a mitigation plan developed unless and until the oil vote passes but that is inadequate, the plan should be provided to confirm in the DEIR that the significant impacts can be mitigated. Right now it is being assumed. Either the finding needs to be changed to be a significant unavoidable impact or a plan needs to be put forward to support the DEIR's conclusion that the impact is less than significant. Please provide the mitigation plan that will cure the fact that equipment spacing issues are significant and in violation of the fire codes. BARN-33

In closing, I have read the draft environmental impact report comments provided by Mr. Pruetz and agree with the issues he identifies as being inadequately addressed in the draft environmental impact report. I hope and expect they will be addressed in the final EIR to help ensure the EIR is CEQA compliant. BARN-34

Terri Dinubilo

From: brooke bolin <brookebolin7@gmail.com>
Sent: Monday, March 17, 2014 11:12 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Stop Hermosa Beach Drilling

1647 Voorhees Ave
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Brooke Bolin and I am a sophomore at Mira Costa High School. I am writing to you today about the Oil Drilling project that is being debated about in Hermosa Beach. I feel that the Drilling in Hermosa Beach should not take place and that we should look to alternative energy sources that will keep our environment in tack. Even though many people are for the drilling, there are many effects which could cause severe damage to us in the future. BOLB-1

There are many health issues that would pertain to the drilling; for example, air quality and water cleanliness. There would be more carbon dioxide released into the atmosphere which could cause more global warming and having less healthy air in our environment in general. The water would have less oxygen in it so the quality would not be anywhere near as great as it used to. Overall, our atmosphere would not be as safe to live and breathe in as it would be without the oil drilling. BOLB-2

Another issue that could cause severe damage would be the possibility of an oil spill. Although many Oil Companies take many precautions with oil drilling, accidents can happen and those can result in an even greater toll on our environment. Oil spills can destroy many homes and can hurt the wildlife living in our area. Companies might not make oil spills seem like a big deal because they often never occur but, the times we least expect things are when they can pop out at us. BOLB-3

The biggest effect of the oil drilling in Hermosa Beach would be on our environment and the appearance of the city. In this area, people take pride in their homes and neighborhoods that they have established over time. They would not want those to get ruined just because part of the local population want to take a chance in ruining these aspects of our society. The city is a big tourist attraction as well because of our beautiful beaches and spectacular views, but if those were destroyed, the population and tourism would decrease massively. Hermosa Beach should not be subject to any cause that would ruin the environment in any way, shape, or form. BOLB-4

A person who is for the drilling might try to suey you in the wrong direction, or deceive you, by stating that the drilling will bring many positive aspects to Hermosa Beach, like money, when in reality it will do the total opposite. In this situation the positives outweigh the negatives and money should not be more important than BOLB-5

preserving the environment that we have. Research on this topic will lead you to many other arguments against the drilling which are more prevalent than the positive ones.

Throughout this argument I have stated that the Hermosa Beach drilling should not be taken into action and that it should be dismissed due to the problems that it could cause affecting our lives. If you want to do what is best for the people, environment, and safety of the population, I would keep Hermosa, Hermosa and put down drilling in our cities. Thank you for taking your time to read on this subject. BOLB-6

Yours sincerely,

Brooke Bolin

1605 wendy way
Manhattan Beach, CA 90266
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Austin Bowkus and I would like to give you my input on the drilling in Hermosa Beach, I am against the drilling because your whole project is not required to be clean and or safe, and that would ruin our clean water and our air. BOWA-1 It will also have aesthetic impacts on our community such as the 110 ft workover rig and the 87 ft electric drill rig that will tower over nearby homes, and with that comes the ruining of our city, because nearly 50% of Hermosa Beach residents live within 0.5miles of the proposed drilling site where there will be, 30 oil rigs, 4 wastewater reinjection wells, storage tanks, and miles of underground pipelines, not including all of the noise and lights coming from the site. BOWA-2 This will also make our property values decrease substantially and make our city less attractive as a tourist destination. BOWA-3

One of the reports that i read also said that you recommend 130 mitigation measures to soften the impact of the noisy drilling, chemical odors, and harmful air emissions that would likely occur during demolition, construction, and operations of the project at the corner of 6th st and valley drive at the city's existing maintenance yard. which would be relocated at the city's expense, the city has 6 million set aside and would need 11.5 million to pay 1.1 million for the next 20 year, or the city could cut its annual 30 million$ budget by approximately 850,000 a year just to pay for it for the next 20 years. BOWA-4 Another reason why I am against the drilling is because in my chemistry class we learned about how a lot of car companies are trying to make a car that runs on hydrogen instead of oil because there will be a lot less pollution coming from hydrogen rather than coming from oil, so my question is why should we be drilling for oil and ruining our city if the future of our transportation is running on hydrogen instead of oil, so think about that when you make your vote. BOWA-5

Even though i am against this whole drilling thing i will say why should chose the drilling and that is because if you say yes our city will gain 118 to 270 million over the next 34 years, and our schools will receive 1.2 to 2.2 million over the next 34 years, but if we say no then it will cost our city over 22 million in over 20 years, and I don't really think that the 6 million we have saved BOWA-6

up is going to do much help.

So in the end i would like to say that i am against the drilling but i understand that we may need it but one thing is for sure I know that I don't want to have to swim or surf in water full of oil and I'm sure you dont want to either BOWA-7

sincerly,

Austin Bowkus

To the City of Hermosa Beach:

As a resident of the Southbay for 20 years, the past nine of which in Hermosa, I am deeply disturbed by the level of extremist vitriol regarding even the suggestion that Hermosa residents should have the ability to make an informed ballot decision in regard to whether our City should allow oil drilling. In what seems to be a complete vacuum of intelligent debate, I am writing to my fellow citizens to offer some ideas and facts that might help spur some independent thought to counter the obviously visible one side of the issue.

While I am an investment analyst by trade who has studied the oil industry for decades, the basis for many of my non-technical comments is simply from spending a few hours on the web. Our City has a surprisingly terrific website where a resident can look at past and projected budgets and the details of history of oil drilling in the Southbay. It also contains links to all the E+B fillings as to what the project will actually look like and just how much money could pour into our schools and our City. I spent time on the Keep Hermosa Hermosa website and Facebook. I also went a little farther and have talked to school district officials, the head of the HBEF and I invited E+B representatives to my office for a Q+A session with some other locals. BROJ-1

I conclude the following: it would be the height of insanity, and grossly undemocratic to not allow this proposal to go before the voters. My personal vote would be that we would also be crazy not to approve it. BROJ-2

My first and most important point is that the math of a successful drilling program is so enormously positive for the City - and that means us - that it must be heard. The City's annual budget is $30mm-ish. Using the 80% of the Berkeley Research Group's study(page 85), one comes up with an average of $23mm annually for the City split between the General Fund and the Tidelands Fund for the first ten years of project life, trickling down for another 20-ish years. Within any reasonable margin of error, that is an absurdly large elephant to be ignored by a banner campaign. Think of the state in which we live and its finances. Think of the difficulties a small City like Hermosa has in sustaining the kind of service and community we desire. A successful program is a preposterously large piece of good luck for really "Keeping Hermosa Hermosa." A not in any way comprehensive list of things that can be negotiated and funded with this inflow include - complete rebuild of aging City buildings - City Hall, Police, Fire; the expensive and necessary rebuild of our sewers; pier, strand and downtown rebuilds; parking improvements,; environmental spending to cleanse run-off pollution, energy efficient City lighting and pension liabilities. Yes, there is are two "pools" that the cash flows into - General and The Tidelands Trust, but spending from these pools has been and can be negotiated. In fact, I would argue the biggest argument against drilling is the lack of confidence in City officials to intelligently spend our good fortune, a good problem to have. BROJ-3

Secondly and this is also incredibly important and not well understood - the "deal" between the City and E+B is in no way written in stone, as many of the deal points were inherited from the McPherson days, including the inane decision made by former school board officials to take a BROJ-4

flat dollar rate as opposed to a more normal royalty rate based upon a percentage of revenues. If this were renegotiated to some percentage of the City format, we are easily talking $2-4mm to the school every year. And lets be clear, these is royalty dollars which do not affect money from the state..

Which brings us to the schools. It is sadly zero surprise that recent parent nights at Valley and View were just as depressing for parents as when I started attending 9 years ago when my kids were in school. The current "suggestion" of $1000 per kid is merely to maintain ground in a losing battle and is not a plan to restore school programs like art, music, robust after-school activities and facility improvements. And I would add it acts as a deeply regressive tax as not all can afford the private schools of art, music, theatre, tutoring centers, club sports teams, much less the time flexibility to move kids from one activity to the other. Lets be clear about the choice - several millions a year INTO schools from allowing drilling vs asking parents for $1mm a year, a number which can only grow. E+B officials also told me they would be willing to consider pre-paying future royalties so that the flow of funds to the schools would not have to wait for oil to flow.

BROJ-5

What is deeply upsetting is that school officials feel immense pressure from a vocal "minority"(How would we know without a ballot vote?) not to weigh in on this issue. If the HBEF and the School District are not 100% focused on improving our schools and are being steered by other considerations, then something is seriously amiss. I am not throwing either group under the bus, what I am trying to make loud and clear is they are under pressure from a political movement that has nothing to do with improving our schools and I think it is high time that this pressure was made public and parents get a chance to understand the issues and weigh in. School officials and the HBEF have the obligation to enter into discussions with the City and E+B about how to secure appropriate and direct funding for the schools and they deserve our vocal support to do so.

Let's also be honest about oil drilling. The EIR will say nothing we don't already know. This is going to be an annoying, messy and epic piece of site construction for what I guess to be three-ish years that is not going to be fun for those who live south of Pier. What I don't think people understand is that the proposed site is already a hazardous waste site for which the City is on the hook for remediating with a multi-million price tag. Again, things are negotiable - compensation for an x radius around the site? Re-route truck routes down Herondo instead of Pier? What I also think people don't understand is there is a drilling phase and then a pumping phase. The former will drive us crazy - the latter is the long-term project and it is going to be difficult to notice it is there most of the time. This process has been accomplished legally and successfully in cities and areas across the country(including Beverly Hills High School and Hillcrest Country Club - arguably two of the most unlikely sites in my opinion) without producing legions of zombies or generations of bed-ridden communities. The suggestion that the City of Hermosa is embarking upon a massive and unproven project is simply false. BROJ-6

I would also like to add that, lest we forget, this is California. This project would be the most

scrutinized project humanly possible...as it should be...and it will be subject to all the latest in environmental monitoring possible..as it should be. I would also note that the technology of oil drilling and pumping is arguably one of the most intense and fastest areas of development in the world and there are real roles for our community in negotiating standards and rules to ensure we have the best and safest project possible. Why don't we get involved instead of just saying no? BROJ-7

In closing, I think the "Keep Hermosa Hermosa" slogan to be quite ironic and unsettling. We want to keep an effectively insolvent City(yes, you need to count pension obligations, legal obligations and deferred capital spending on sewers and street repair as real obligations) tied to a dysfunctional state? We want to maintain schools that continue to struggle under financial pressure and continue a terribly regressive tax of $1000 per child? We want to be held hostage for cash by a downtown scene where residents can rarely be found on a weekend? Don't we want better for our community? BROJ-8

"Think Global, Act Local" is utterly at work here and I personally think it is outrageous to have global political movements, however well intentioned, to utterly impede our ability to materially improve our own lives in our own town for generations. I would propose an alternate slogan for the City - Hermosa First!

This is a complicated issue and arguably historic decision for our City and everyone does a vote on it.

Jeffrey Bronchick,
Hermosa Beach Resident

-rri Dinubilo

From: Kate Brunskill <brunskill.kate@gmail.com>
Sent: Monday, March 17, 2014 10:36 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

1420 11th Street
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Kate Brunskill and I am a Sophomore at Mira Costa High School. I am writing to you in regards to the potential oil drilling in our beloved Hermosa Beach. I strongly believe that choosing to allow oil drilling in Hermosa Beach would be a terrible mistake for these three simple reasons: its health hazards, danger within our city limits, and undermining the land and sea causing earthquakes. The thought of any one of these things occurring in our city is very concerning and worrisome. BRUK-1

In my opinion, I think people's health should always come first as a main priority when making a decision that will drastically change our city. More than 50% of Hermosa Beach residents live less than half a mile away from the proposed drilling site, which is anticipated to produce a great deal of air pollution and odor to the area. This air pollution produced from the oil drilling is said to increase asthma attacks, bronchitis, heart attacks, heart failure, headaches and migraines, and cardiac arrhythmia. All these health issues would be purely caused by this oil drilling and I for one do not like the sound of that. I personally suffer from asthma and terrible headaches and the introduction of this pollution and odor will only add to my difficulty breathing and inflict more painful headaches. The odor this oil drilling would produce would ruin the whole atmosphere of Hermosa and take away from its apparent beauty. BRUK-2

With the oil drilling being so close to residential homes, this draws a red flag on safety issues. Oil spills and machines malfunctioning is very common and could be potentially devastating to Hermosa. Fires, leaks, explosions, falling objects, and vehicle accidents are all major hazards that should be taken into serious consideration, too. If an oil spill occurs, it would kill all the marine life and ruin our beaches. This would once again, cost a substantial amount of money to clean up and would result in many unhappy Hermosa and South Bay residents. BRUK-3

Finally, drilling oil from underneath the surface of Hermosa would leave a great deal of instability of the grounds and sea, resulting in earthquakes. If oil was to be extracted, it would need to be replaced with a similar substance so that the ground wouldn't concave or crack under the pressure of everyday use. The possibility of causing more earthquakes should also be called into question. Having unstable roads and grounds is a major safety risk and portrays Hermosa almost as a ticking time bomb ready to explode or collapse at any moment. BRUK-4

That is not the type of place I want to be living in. I want to feel safe walking on the beach in Hermosa without wondering about the possibility of the drilling causing the faults to slip and a major earthquake to take place.

One reason I could see why people would be in favor of this drilling would purely be for financial reasons and the massive gain in money for the city. Voting down the proposal would cost the city $17.5 million, but approving it would mean that E&B would slant-drill wells for oil and gas on the city maintenance yard. The amount of money the city of Hermosa would gain from this oil and gas drilling would be extremely beneficial and a large portion of the oil would be given to Hermosa and used in our gas stations. The government would no longer be spending millions on buying oil from other countries because there would be ample oil right here in Hermosa Beach. BRUK-5

Major health hazards, nearby danger, and slipping faults. These will be the repercussions of implementing oil drilling in Hermosa Beach. It will cause our beautiful city to smell and contain more eye sores such as heavy duty trucks coming and going. I truly believe allowing oil drilling here would be a horrible mistake and I'm sure the majority of the residents living in the South Bay would agree with me. Please, Keep Hermosa Hermosa. BRUK-6

Yours sincerely,

Kate Brunskill

Terri Dinubilo

From: brit burger <burgerbrit@gmail.com>
Sent: Monday, March 17, 2014 9:07 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Hermosa Beach Drilling

511 1st Street

Manhattan Beach, CA 90266

March 17, 2014

Mayor Michael DiVirgilio

Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,

City Manager Tim Bakaly

City of Hermosa Beach

1315 Valley Drive

Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I am Brittany Burger and am currently a junior at Mira Costa High School. Today, I am writing to you on my stance for the oil drilling in Hermosa Beach. I do not think the drilling is a good idea for our community and beaches here in our local city. Though, some may say that drilling is a good idea because of the money that it will bring to Hermosa Beach, the affects that is will have on the community and the possibility of having hydrogen powered cars in the future is not worth spending all of this time and money on the drilling here in our beautiful community. BURB-1

The drilling in Hermosa Beach could have a tremendous impact on our community and the risk that comes with the drilling is something that should be taken into consideration. With this drilling, E&B would be allowed to drill in any part of Hermosa Beach. This includes schools, parks, office buildings, homes and the ocean. This company is also not required to be in compliance with seven federal environment laws. If something were to go wrong with the drilling due to the lack of compliance with these laws, it could have a tremendous impact on the homes, schools and public parks and ocean. Just in the past six years, E&B has spilling nearly 16,000 gallons of toxic fluid in California, putting our community at risk for this to happen and our beaches to be ruined. BURB-2

Hydrogen powered cars and research on them and the demand for them are rising every year. Hydrogen powered cars would mean that we could fill up our gas tanks using water, thus not needed oil for our cars any more. The drilling in Hermosa Beach would last about thirty-five years. With hydrogen powered cars on the rise, in thirty-five years all of the oil that we are drilling for will be useless. Not only are these cars on the rise but if you live in California, these cars are already available to rent. BURB-3

Growing up in a beach community for most of my life, then moving to Texas for a few years and now living back in a beach community, I appreciate the little thing so much more than I used to. Riding my bike from Manhattan Beach to Hermosa or waking up and surfing is something that could be taken away with the oil drilling if a spill were to take place. Fifty percent of the people who live in Hermosa Beach will be living a half a mile or less from where the drilling will take place. BURB-4

Although the drilling would bring some benefits to the community such as the money from getting our oil locally and not having to out source, the affects of this and the risks that come with it aren't worth it. Thank you for taking time out of your busy day to read this email regarding this matter affecting our local community. Help us to "Keep Hermosa, Hermosa!" BURB-5

Yours sincerely,

Brittany Burger

Terri Dinubilo

From: Megan Chelliah <megan@chelliah.us>
Sent: Monday, March 17, 2014 5:59 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

1501 Pacific Ave.

Manhattan Beach, CA 90266

March 17, 2014

Mayor Michael DiVirgilio

Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,

City Manager Tim Bakaly

City of Hermosa Beach

1315 Valley Drive

Hermosa Beach, CA 90254

Dear Mayor Diirgilio, Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary, and City Manager Bakaly:

My position on the oil drilling in Hermosa is that I am against it. Although the reasoning behind the oil drilling might better the community as well as the rest of the country in the future, right now all it will do is cause havoc in the peaceful town of Hermosa. Overall, right now the oil drilling will cause more traffic in the community, take 5 years to complete, and may cause earthquakes. CHEM-1

First of all, the traffic will increase in the town of Hermosa. If Hermosa lets the drilling happen, they will have huge trucks coming in and out of the city continuously. On top of that, while the drilling sites are being built even more trucks will be driven throughout the city with all the supplies used to build it. The trucks are estimated to add 10,500 miles of heavy-truck-traffic in the first few months and will de driven by schools and along the routes to schools. This will end up making everyone's mornings even harder. CHEM-2

Another point is that this project will take up to five years to complete. The five years will be composed of tons of construction and the installment miles of underground pipelines. More than half of Hermosa will be .5 miles away from the proposed drilling sites. Even after the five yeas of long construction are up the oil rigs can run 24 hours a day, seven days a week, for 35 years. This will leave Hermosa with constant noise from the construction as well as emissions of odors, and a decrease of tourist attraction. CHEM-3

Lastly and most dangerous, the drilling could cause earthquakes. By drilling underground to put in the oilrigs, the pressure could change causing an earthquake. Scientists have known for years now that drilling like this can cause a shift in pressure and lead to "unclamping" of stressful faults causing earthquakes. Many scientists believe that drilling like this where you have to inject fluid into disposal wells is exactly what can cause faults to slip. The drilling in Hermosa would be dangerous to the community. CHEM-4

On the other hand though, the drilling in Hermosa could bring in a lot of profit and lessen the oil prices because the oil would be coming from in state rather than overseas. The oil-drilling project apparently has invested in underground piping to expel the possibility of an oil spill right off our beautiful coast. The industry plans to be as unobtrusive as the can around the city. Also without this project, many people will loose their jobs because the have nothing to work on and have already invested so much money into their Hermosa Beach project. CHEM-5

With all these points in mind, I still believe that drilling in Hermosa will cause more harm than good. The drilling is already upsetting the community. It has cause many people to speak out against this proposal and even promise to move if it is to get accepted. I feel that the drilling is unnecessary at the moment and should be put off until more necessary circumstances arise. CHEM-6

Yours Sincerely,

Megan Chelliah

From: artbypc@aol.com [mailto:artbypc@aol.com]
Sent: Monday, April 14, 2014 4:52 PM
To: Oil Project
Subject: Water Use, Table 2.2

Re: Hermosa Beach Oil Drilling Proposal, Public Record Review Period

Thank you for inviting the communities' inquiries as this is an important decision for us. My question regards the water usage referred to on page 2-11, Table 2.2 of E&B's proposal.

In years of drought in California, such as this one and with dire predictions for future water shortages due to climate change, **how much water consumption by E&B's oil construction, drilling and maintenance is too much**? At what point do citizens begin to suffer for lack of potable water? In addition, are there other possible consequences for the South Bay area, like water pressure failure, loss of firefighting capabilities, price increases and last but not least, the most often asked concern - water contamination? COHP-1

Your research is much appreciated,

Peggy Cohen (Margaret)
Resident since 1998
1222 20th St.
Hermosa Beach, Ca. 90254
310-937-0235

Ken Robertson
Community Development Dept.
1315 Valley Drive
Hermosa Beach, CA 90254

Written Comments for EIR: Hermosa Beach Oil and Gas Drilling Project

Regarding this quote from Page 2-4 "The City is the lead agency which is preparing the EIR, and in this case the decision makers are the electorate of the City of Hermosa Beach." This is a conflict of interest and is not accurate. The City is the lead agency and is also a party to the EIR? That is not legal or ethical. The Electorate cannot, by law, issue a building permit. The EIR should be amended to make either LA County or the State of California the Lead Agency. COLM-1

Beginning on page 2-7, and throughout the document - the EIR discusses lead contamination. It does not discuss how lead contamination will be prevented from entering into storm drain system during construction. Please correct the document to reflect how lead contamination will be contained and prevented from entering the city storm drain system during construction. COLM-2

On Page 2-10 - the EIR states:

Underground existing overhead utilities;

Construction of modifications to intersection of 6th Street and Valley Drive;

Relocation of City Maintenance Yard to the temporary site;

The EIR does not discuss how contamination possibly present at these locations will not be released into the environment. Please amend the document to include discussions about possible contamination at the site of each utility poll (include location of each utility pole to be undergrounded), the temporary and permanent maintenance yard locations and all intersections that will be altered and modified. Please include mitigations examples and ideas, should this additional research find contamination at these locations. COLM-3

Page 2-11 discusses massive use of virgin and reclaimed water:

The EIR does not discuss how the water will be cleaned prior to use. It does not discuss California's current drought condition and how the site will comply with drought restrictions. Please amend the document to include a discussion about how the water used for this project has been procured, and how it will be cleaned prior to use. COLM-4

Page 2-11 discusses the use of electricity:

The project will require high voltage lines buried under residential streets. The EIR does not discuss the electric and magnetic fields that will be generated by the buried high voltage cables. It COLM-5

does not discuss the increased cancer risk associated with burying these lines. The project also mentions they will have a 1MW generator on site. It does not discuss the additional cancer risk associated with a full time generation of electricity in a residential neighborhood. Please amend to document to discuss the effects of electric and magnetic fields being present and the possible increase risk of cancer associated with this and the full time generation of electricity. Please include a specific discussion about the use of the generator on site.

COLM-5 continued

Page 2-21 indicates that vehicle traffic will be up to 43 trips per day. It does not define what a "day" means. Page 2-21 says up to 43 roundtrips per day but 4-13.32 is based on a limit of only 18 roundtrips. This is inconsistent. Please amend the document to reflect the one true reality of vehicle traffic related to this project. Please be specific when gathering information about the meaning of "day," as it pertains to vehicle traffic.

The route of travel is inherently a pedestrian heavy route, traveling past a high school, churches, a grocery store, the community center, children's skate park, school route, heavily used intersections, a farmer's market, basketball courts, a baseball field, tennis courts, a lawn bowling facility and the world's most historic surfboard manufacturing area. This area is frequently filled with children and parents. It is not designed for heavy truck use. The EIR contains a traffic study but the traffic study does not follow Caltrans guidelines and was not developed in conjunction with Caltrans (as is the recommendation). http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf Please amend the document by developing traffic guidelines in conjunction with Caltrans, including the exploration of alternative and more safe routes of travel for traffic associated with the project.

COLM-6

Page 4-13.32 says that: "except for an emergency situation, as defined by this CUP and reported to the City in accordance with the notification requirement, which have been reported to the Director of Public Works in advance of the delivery." It does not describe what those emergencies might be (such as a blow out, oil spill or chemical release). Please describe, in detail, which emergency situations are being considered by the document and amend the document to provide clarity.

COLM-7

Page 2-27 shows the gas combustor & tanks less than 20 feet from the property line. This does not meet Cal OSHA or NFPA requirements for distance (Crude oil has boil over characteristics so it is treated as more reactive than other oils) - http://www.dir.ca.gov/title8/5589.html Please amend the document to discuss the rationale behind the placement of the gas combustor and storage tanks, and specifically discuss how this is being permitted and how the location of these items increases probability of catastrophic events.

COLM-8

In a spill event - Hermosa Beach and Redondo Beach fire are not equipped to handle the type of emergency that a crude oil fire/spill event would entail. Torrance is the closest at over 15 minutes. This is too long and does not meet NFPA standards for response time. To meet standards, they would need to train and equip Hermosa Beach to respond. In a fire event, the protocol will be to douse the area with water. This oil-contaminated water will go directly to the storm drain and quickly to the ocean. Please amend the document to discuss the possibility that -during the dousing of a fire - oil-contaminated water would enter the storm drain system and how this might affect the community, the beach and the Santa Monica Bay.

COLM-9

The project will need to submit an RMP (Risk Management Plan) to EPA. In this, they will need to discuss project staging as detailed in OSHA 29 CFR 1910 - process safety. The size of the facility prevents them from having an acceptable RMP or PSM program. There is no safe location to site people in such a close proximity - any catastrophic failure within the facility, will most certainly result in the death of people on site. Additionally, the prevailing winds blow inland toward Pacific Coast Highway. The EPA requirements will mandate that the project model a failure and the model will reveal a plume that will extend all the way up Pacific Coast Highway. Please amend the document to include discussion of such an event. Please include the exact location that emergency responders will stage to address possible catastrophic events at the facility, and discuss how this will affect the surrounding community. COLM-10

The ground flare is really troubling. The emissions will be from crude oil combustion products, which include xylene, benzene and more. The presence of these compounds will increase the cancer risk of the people living directly downwind and around the project site. Please amend the document to reflect the exact nature of the ground flare and include a discussion regarding the additional safety hazards associated with the use of a ground flare over the use of a flare that is in the air (as used by AES and Chevron facilities). Please explore the use of a more standard (above ground) flare and discuss possible locations that would be more suitable for the flare to operate. COLM-11

When fired, the ground flare will emit a noise similar to that of the flares at AES and Chevron. Please amend the document to show the consideration of increased noise, as it relates to the use of the ground flare at this project site.

Complete Mitigation of Project

There are multiple significant impacts associated with this project that could be mitigated with one simple measure. The problems of Noise, Air and Light pollution can be solved by building a 30-foot structure that is enclosed on all sides, including the addition of a roof that will prevent noise and emissions from leaving the project site. In an effort to mitigate the problem with the aesthetic disruption caused by both the 87-foot drilling rig and the 110-foot workover rig, the oil and gas drilling company can dig an 80-foot pit in which they would build the basis of their oil and gas drilling operation on the floor of said pit, and with the 30 foot, fully enclosed structure above the 80 foot pit, will be able to have ample room for both the drilling and workover rig to be utilized to their maximum potential. This solution (enclosing the entire structure within a pit and roofed environment) should be a possibility, due to the fact that the project has been described as using the latest, state-of-the-art technology that is “closed loop” and will have zero harmful emissions. In addition, the technologically advanced ground flare that the oil and gas company intends to use is reported to be safe enough to operate in closed quarters, so again, there should be no problem with enclosing the entire oil and gas drilling operation into a self-contained, soundproof, emissions-free structure. COLM-12

Regarding the issue of getting vehicles and equipment to the bottom of the 80-foot pit: A simple vehicle and cargo elevator will solve the problem.

This solution will prove to be amenable to the people of Hermosa Beach because any disruption to our current level of Air Quality will be contained within the project’s air pace and current footprint.

This solution will prove to be amenable to the people of Hermosa Beach because any light emitted from the drilling rig or workover rig will be contained within the enclosed structure of the project.

This solution will prove amenable to the people of Hermosa Beach because any sound generated by the project will be contained within the enclosed structure of the project.

COLM-12 continued

This solution will prove amenable to the people of Hermosa Beach because any toxic emissions that might be released during oil and gas production will be contained within the confines of the enclosed structure.

In closing, if the oil and gas drilling is as safe and efficient as the applicant claims, then they should have no issue with enclosing the entire system and mitigating multiple significant impacts in the process.

Respectfully Submitted By,

Michael Collins
520 8th Street
Hermosa Beach, California

R. Douglas Collins
548 2nd Street
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March 3, 2014

Ken Robertson, Director
City of Hermosa Beach
Community Development Department
1315 Valley Drive
Hermosa Beach, California 90254-3846

VIA E-MAIL ONLY

RE: Draft Environmental Impact Report, E & B Oil Drilling & Production Project

Director Robertson,

My wife and I are deeply concerned about several aspects of the project now being reviewed by the City of Hermosa Beach in preparation for an election on the question of whether to lift the city's current ban on oil drilling and allow E & B Natural Resources Management Corporation to drill 30 oil and gas wells and four wastewater injection wells on the site currently utilized as the city's maintenance yard. That site, located at 6th Street and Valley Drive, is approximately 1,000 feet from our home. COLD-1

Having thoroughly reviewed the Draft Environmental Impact Report ("DEIR"), the Health Impact Report, the Cost Benefit Analysis, and numerous other documents, reports, and news articles regarding the project and about oil and gas production in general, we have concerns about the adequacy of the DEIR in several areas. In this letter I will address only one of those concerns, namely the absence of an adequate setback.

"Setback" is the term used in law to define the minimum distance between an oil or gas well and surrounding homes, business, schools, parks, and public roads. It is arguably the most basic safety requirement imposed by law on the oil extraction industry. The proposed project, however, would lack a setback sufficient to protect the lives and properties of the city's residents. Indeed, it would have virtually no setback; E & B's plans show that its 30 oil and gas extraction wells and four wastewater injection wells would be built within 200 feet or less of existing business, homes, and streets. According to the DEIR at page ES-8, the site itself is "within 100 feet of businesses, 160 feet of residences, 55 feet of the Greenbelt and 20 feet of the public sidewalks." COLD-2

The inadequacy of that small setback is illustrated by comparison to the setback requirements imposed by other jurisdictions, many of which have recently strengthened their requirements. In December 2013, the City of Dallas, Texas, increased its minimum setback from 350 feet to 1,500 feet. Similarly, in 2013 Colorado increased the minimum setback in that state from 350 feet to 500 feet.

Here are several other examples of the minimum setbacks required in other jurisdictions, all of which have a long and extensive history with oil and gas drilling: Maryland: 1,000 feet; Michigan, 300 feet; North Dakota, 500 feet; West Virginia, 625 feet; Ventura County, California, 500 feet; Santa Fe County, New Mexico, 750 feet; Rio Arriba County, New Mexico, 650 feet; Arlington, Texas, 600 feet; Colleyville, Texas, 1,000 feet; Denton, Texas, 1,000 feet; Dish, Texas, 1,000 feet; Flowermound, Texas, 1,500 feet; Fort Worth, Texas, 600 feet; Grand Prairie, Texas, 700 feet; Keller, Texas, 600; North Richland Hills, Texas, 600 feet; Southlake, Texas, 1,000 feet; and Weatherford, Texas, 1,000 feet. COLD-2 continued

Surprisingly, however, the minimum setback requirement in California law is extremely weak. California Public Resources Code § 3600 provides that any well "located within 100 feet of an outer boundary of the parcel of land on which the well is situated, or within 100 feet of a public street or road or highway . . . or within 150 feet of [another] well . . . <u>is a public nuisance</u>." That law further provides in § 3602 that "where a parcel of land contains one acre or more, but is less than 250 feet in width, there may be drilled on the parcel of land not more than one well to each acre. . . ." Because the city yard is less than 250 feet in width, this law would allow only a single well to be drilled on that the 1.3-acre site — if it applied, that is, which it does not because of a bizarre and troubling loophole in California law. COLD-3

The California Public Resources Code includes this exception in § 3605: "The provisions of this chapter do not apply to any field producing oil or gas on August 14, 1931." As noted in the DEIR, an oil well was drilled on the site of the city yard in 1930. That well, which was known as Stinnett #1, produced oil until it was capped about 30 years ago. But for its existence more than 80 years ago, E & B's proposal to drill 30 oil and gas wells and four wastewater injections wells on that tiny 1.3-acre plot in the middle of one of the most densely populated cities in this country would be prohibited by law. The fact that something is legal, however, does not make it wise or safe.

As extensively described in § 4.7 of the DEIR, Hermosa Beach is situated near four significant earthquake faults: the Redondo Canyon Fault, the Palos Verdes Fault, the Compton Thrust Fault, and the Newport-Inglewood Fault. The DEIR also notes that because of the type of soil on which Hermosa Beach is built, the intensity of the ground movement caused by an earthquake would be greatly intensified due to liquefaction. According to the DEIR at page 4.7-5 through COLD-4

4.7-6, "A Project Site-specific seismic analysis completed for the Proposed Oil Project indicated that the maximum moment magnitude would be a magnitude 7.7 earthquake, generated from the Palos Verdes Fault." To put that in perspective, the 1933 Long Beach earthquake had a magnitude of 6.4, the 1971 Sylmar earthquake was a magnitude 6.6, and the 1994 Northridge earthquake had a magnitude of 6.7. The 1989 Loma Prieta earthquake near San Francisco was a magnitude 6.9, and the 1906 San Francisco earthquake is estimated to have had a magnitude of 7.8.

Given the absence of an adequate setback for the proposed E & B project, the very real potential for major earthquakes in this region presents an unacceptable risk to the lives of the residents of Hermosa Beach who live near the site, to say nothing of their homes, businesses, and other property. As noted in the DEIR at page 4.7-6, ". . . several significant instances of damage have occurred as a result of fire following an earthquake."

COLD-4 continued

The potential for a disastrous well fire is not limited to damage from earthquakes. On February 11, 2014, a gas well owned and operated by Chevron in Drunkard Township, Pennsylvania, exploded and burned. Although the exact cause of the fire is still under investigation, news reports indicate that it is believed to have been the result of a broken bolt in the wellhead. Whatever the cause, the fire burned out of control for five days before it was extinguished by experts from the Houston-based Wild Well Control Team. Indeed, the fire was so intense that local firefighters were reportedly unable to get within 300 feet of the burning well. Tragically one worker was killed in the incident, but the lives of the residents were spared for one simple reason: there was a half-mile setback between the well and the surrounding homes and business. Imagine the damage and probable carnage if such a well fire were to occur on the site of the Hermosa Beach city yard.

COLD-5

The ever-present potential for human error is another reason that the lack of an adequate setback is of concern. Regardless of whether the E & B project utilizes state-of-the-art equipment and techniques, the fact remains that humans make mistakes. For an example of the types of such of errors and their potential consequences, one need look no farther than the Deepwater Horizon disaster in 2012. As reported by the New Orleans Times-Picayune on September 5, 2010,

> More than 100 hours of testimony before a federal investigative panel, two dozen congressional hearings and several internal company reports have brought the genesis of the spill into sharp focus. The record shows there was no single fatal mistake or cut corner. Rather, five key human errors and a colossal mechanical failure combined to form a recipe for unprecedented disaster. The rig's malfunctioning blowout preventer ultimately failed, but it was needed only because of human errors. . . . [E]ngineers repeatedly

COLD-6

chose to take quicker, cheaper and ultimately more dangerous actions, compared with available options. Even when they acknowledged limited risks, they seemed to consider each danger in a vacuum, never thinking the combination of bad choices would add up to a total well blowout.

COLD-6 continued

Hermosa Beach's total ban on oil and gas wells exists for good reasons, namely the health, safety, and quality of life of its residents. Promises of possible revenue for the city, the school district, and some property owners is not a sufficient reason to ignore those valid concerns. Given the number of wells planned for the site, the small size of the maintenance yard, the close proximity of homes and businesses, the potential for earthquakes, equipment failure, and human error, and the absence of any reasonable legal setback requirement, and considering the potentially disastrous consequences of an accident, it is clear beyond debate that the only sensible choice among the alternatives considered in the DEIR is "no project." The final Environmental Impact Report should be so modified.

COLD-7

Sincerely,

R. DOUGLAS COLLINS

R. Douglas Collins
548 2nd Street
Hermosa Beach, California 90254-5222
E-Mail: doug.collins@roadrunner.com
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March 18, 2014

Ken Robertson, Director
City of Hermosa Beach
Community Development Department
1315 Valley Drive
Hermosa Beach, California 90254-3846

VIA E-MAIL ONLY

RE: Draft Environmental Impact Report,
E & B Oil Drilling & Production Project

Director Robertson,

This is an addendum to my letter to you dated March 3, 2014, on the same subject.

I attended the open house at the Hermosa Beach City Hall held March 8, 2014. There I spoke at length with the consultants who wrote the Draft Environmental Impact Report ("DEIR"), which I had carefully reviewed prior to the open house.

I asked the consultants why they had not selected the "No Project Alternative" as the "environmentally superior alternative" among the various options they had considered. They all seemed surprised by my question and replied that they had, in fact, come to precisely that conclusion.

I then told them that from my reading of the DEIR it appeared that the "AES Site Alternative" was their first choice. However, they explained that under the California Environmental Quality Act ("CEQA"), they were obligated to select an alternative if, as in this case, they concluded that the No Project Alternative was the environmentally superior alternative. As stated at page 1-4 of the DEIR, "The State CEQA Guidelines, Section 15126 (e) (2), state that if the environmentally superior alternative is the No Project Alternative, then an environmentally superior alternative must be identified from among the other alternatives." COLD-8

While I was pleased to learn that the consultants had selected the No Project Alternative as the environmentally superior alternative among those they considered, that conclusion is simply not clear from the DEIR. I have done computer searches of the entire document for the terms "no project" and

"environmentally superior" and have not been able to find any statement to that effect. Rather, any such conclusion is apparently buried in polite technical jargon. Because of that, my initial impression that the consultants found the AES Site Alternative to be the preferred alternative seems quite reasonable,[1] and I remain concerned that others may misunderstand the report as I did.

COLD-8 continued

Given the importance of this issue to the future of the City of Hermosa Beach and to the health and well-being of its citizens, and considering the weight that many voters are likely to assign to the report, it is imperative that the final Environmental Impact Report be clarified. It should say in plain and unambiguous terms — indeed in bold type and all capital letters — that the No Project Alternative is the environmentally superior alternative.

Sincerely,

R. DOUGLAS COLLINS

[1] See in particular Section 6.3 of the DEIR: "The AES site reduces the greatest number of the Proposed Project's significant and unavoidable impacts to less than significant with mitigation. Therefore, the AES Site alternative is the Environmentally Superior Alternative."

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April 13, 2014

Ken Robertson, Director
City of Hermosa Beach
Community Development Department
1315 Valley Drive
Hermosa Beach, California 90254-3846

VIA E-MAIL ONLY

RE: DRAFT ENVIRONMENTAL IMPACT REPORT,
E & B OIL DRILLING & PRODUCTION PROJECT

Director Robertson,

This is the second addendum to my letter to you dated March 3, 2014, on the same subject.

Section 4.6(d) of the Settlement Agreement provides as follows:

> Grant as reasonably required by E & B all necessary rights of way, easements, franchises and other rights as necessary for subsurface pipelines and other facilities and appurtenances in order for E & B to drill for, produce, market, transport and sell all oil and gas produced from the subject lease(s).

It is my understanding that E&B Natural Resources Management Corporation has publicly taken the position that the above provision would entitle them to utilize any property owned by the City of Hermosa Beach that E&B determines to be necessary to their operations. This includes portions of both the Greenbelt and South Park, and perhaps other city-owned parcels. COLD-9

This is a very sensitive issue for the people of our city, who have repeatedly demonstrated their strong opposition to encroachments on our parklands, especially the Greenbelt. However, I find nothing in the Draft Environmental Impact Report that addresses this possibility. I therefore request that the consultants review and comment on the potential impact of this provision.

Sincerely,

R. DOUGLAS COLLINS

From: Don Croley [mailto:drcroley@msn.com]
Sent: Monday, April 14, 2014 10:42 AM
To: Oil Project
Subject: Comments!

1. Trying to get through the EIR one can only conclude it was designed to obfuscate! CROD-1

2. Where in this wordy tome is anything said about "Fracking"?! I hope it is clearly understood that fracking is NOT allowed in Hermosa Beach! CROD-2

Don Croley

Terri Dinubilo

From: Sophie Dafesh <pangs99@verizon.net>
Sent: Monday, March 17, 2014 10:57 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

5th Street
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hello I am a student at Mira Costa High School an I oppose the project to drill for oil in Hermosa beach. There are a plethora of reasons I find the project inadvisable: The first is that it will negatively impact the people in Hermosa beach. It will also risk causing damage to the previously damaged environment. Finally it would negatively impact the town itself DAFS-1

See comments below

The drill for oil will harm the lives of the people in Hermosa Beach. There are many possible risks that would be caused by the drilling project. First dangerous pollutants would be released in the air such as arsenic, a carcinogen that also may damage the blood vessels. The odors could also cause headaches to residents of Hermosa. These headaches will be caused by Hydrogen Sulfate, which could also cause nausea or mental health risks. Also by re-injecting fluids, there may be an increase of seismic activity. Seismic activity would put Hermosa and it's neighboring towns at risk. The project also is a fire hazard. Noise and light would also impact the citizens sleep in a negative fashion, as the noise would be made during testing. These risks would greatly upset townspeople and negatively impact their health. DAFS-2 DAFS-3 DAFS-4 DAFS-5

It will also risk damaging the environment. The methane gas could leak, or contaminate the water. There is also a risk or increasing greenhouse gas emissions, which would not only affect Hermosa, but the entire world. Oil spills also pose a danger to the environment. They are challenging to remove especially from the ocean. They also damage the marine life in the ocean. The oils contents can be poisonous which would be bad for people and animals in the water. Oil can also damage animals feathers and fur, which damages their flight and ability to maintain temperature. Avian life would be especially damaged.\ DAFS-6 DAFS-7

Finally Hermosa Beach is a beach town. People visit the town to go to the beach and spend time along the beach. If there were an oil spill, it would drive surfers and other beach -goers away from Hermosa Beach. There may also be a loss in property value which would perturb property owners. There may also be subsidence in the DAFS-8 DAFS-9 DAFS-10

area near to the shore, which would change the land and cause a loss of the beach sand. This would change the layout of the beach and could lead to flooding of beachfront property. All of these changes would impact the way the town presents itself, changing the entire purpose of the town; from a beach town to one designed to harvest oil.

While it is true that the city of Hermosa Beach has taken on this endeavor to settle the promise of a place to drill oil to the E&B company, and by not allowing them to drill oil they will have to pay a settlement of 17.5 million dollars. Hermosa beach can pay the settlement without going bankrupt, and by not allowing oil to drill they are insuring that Hermosa beach will be a clean, safe, and healthy place for all of its residents. DAFS-11

To sum it all up; the drilling in Hermosa should be opposed because it will greatly damage the lives, environment, and the town itself. Thank you for your time. Addendum to DAFS-1

Yours sincerely,

Sophie D.

Terri Dinubilo

From: Jamie Danis <jamie.m.danis@gmail.com>
Sent: Monday, March 17, 2014 9:56 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

1531 5th Street
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hello, I'm Jamie Danis and I'm a local resident and student at Mira Costa High School, and after researching the issue through my chemistry course, I believe that drilling for oil of the shore of Hermosa is an extremely ill-advised idea. DANJ-1

One reason that I believe drilling in Hermosa is a terrible idea is that the oil drilling is exempt from many environmental laws. As a result, it would cause major pollution for Hermosa residents and surrounding areas. It would affect both the air and the water quality, and as a result could cause many health issues for residents. Also, the pollution would continue to build as long as the project continued, and as such would only be worse and worse for Hermosa and surrounding areas the longer it would continue. DANJ-2

Another reason to reconsider oil drilling in Hermosa is that the drilling could easily create earthquakes. Earthquakes are already relatively common in California and are often destructive. Scientists have proven that injection wells and other human activities can help to create earthquakes by changing pressures underground. That often "unclamps" old faults that were previously under pressure. The tectonic plates then slide past each other and cause the ground to shake. By increasing our chances of having an earthquake centered so close to us, we could suffer major damage and losses. DANJ-3

Finally, the oil drilling would also increase traffic in Hermosa. For many people with already busy schedules, the 10,500 estimated miles of additional heavy truck traffic in the first ten months would pose an issue. It would almost definitely affect children's routes to school, and for many students, sleep deprivation is already an issue. These children do not need to sacrifice more of their sleep to account for additional traffic. DANJ-4

While proponents of oil drilling argue that Hermosa is in need of the revenue the oil drilling would provide, this is in reality entirely false. Hermosa has $80 million in assets, and as such is financially secure. Also, the revenue would be largely controlled by the State Tidelands Trust, and as such the funding would be extremely restricted on what it could be used for. Seeing as Hermosa is, in fact, financially secure, oil drilling is unnecessary. DANJ-5

The benefits of oil drilling far outweigh the benefits. It would create additional pollution, an increased amount of earthquakes, and increased traffic. While it would generate additional revenue, the funds would be limited and Hermosa is not desperately in need anyways. Thank you for your time and consideration. DANJ-6

Terri Dinubilo

From: Joshua Darbee <joshuad4567@gmail.com>
Sent: Tuesday, March 18, 2014 1:07 AM
To: City Clerk
Cc: tnielsen@mbusd.orh
Subject: Input on drilling in Hermosa

1436 21st Street

Manhattan Beach, CA 90266

March 17, 2014

Mayor Michael DiVirgilio

Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,

City Manager Tim Bakaly

City of Hermosa Beach

1315 Valley Drive

Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Joshua Darbee. I am a sophomore attending Mira Costa High School and I am 17 years old. I am big motorsport fan, particularly of Formula 1 and Endurance racing. I love to go kart racing occasionally and my usual kart racing location is K1 Speed. The point of my email is to inform you all

on my position on the Hermosa Beach drilling and why I don't believe it is worthy of pursuance.

First, I believe that the oil drilling that will occur in Hermosa Beach will not be a worthwhile investment considering it will cost a lot of money to relocate and rebuild the City Maintenance Yard along with other city properties that are currently in the area where the wells will be built. It is also unworthy of investment because the money that is obtained in revenue will not be sufficient enough to make up for the community lives and inhabitants that are to be impacted by the drilling. Their health and lifestyle will be significantly impacted, causing great unhappiness and disposition towards E&B and you, the local government. DARJ-1

Second, the next great issue is health. The drilling will have significant negative impacts on the state of mental and physical health of the Hermosa Beach community and the condition of the environment. Toxic odors and DARJ-2

ıumes like hydrogen sulfide will cause respiratory issues like asthma in children and adults. Other problems include headaches, irritation, and also cancer. Health issues that locals can encounter aside from the toxic byproducts are from the construction and operations of the drilling during the daytime and nighttime. Sleep deprivation, mental problems, stress, annoyance, and disturbance of work environment are signs of negative impacts that not only affect the victims themselves, but the people around them causing further complications. Possible damage to the environment like the ocean and beach can occur if oil spills are experienced causing havoc and damage that could take years to reverse or could possibly be irreversible. DARJ-2 cont'd

Lastly, an issue that is not so much about the health and effects on the community but the community itself. The drilling is a bad idea and should not occur purely because of the fact that there is a fairly dense, urban environment that is located next to the theoretical site along with a fragile ecosystem nearby. If the drilling were to happen at a location that was not so densely populated, it might be all right but due to the fact that so many inhabitants, wildlife and human, are located so close to the drilling area along with aesthetic disturbances and locations of communal value like recreational parks and such, being affected directly and indirectly, it just is not worth the cost. DARJ-3

Some might say that the drilling will bring a mass of revenue or it will create an opportunity of employment that will be greatly beneficial but the outlying factor of the community of Hermosa Beach being significantly impacted, more negatively than positively, downright outweighs the counter arguments to the opposition of the drilling. I'm sure that if taxes need to be raised or some city services need to be cut in order for the payment of the estimated $17.5 million to take place then they will gladly do it as long as it means that the drilling will no longer take place. DARJ-4

I believe the Hermosa Beach drilling should not occur due to the substantial negative impacts the drilling will have on the community around the site and the potential health hazards it poses on the community and the local ecosystem. I believe that the city will be better off without it and the residents will be much happier with an outcome of no drilling than with an outcome of drilling, especially those who would be near the drilling site. Thank for you taking the time to read my email and I hope that it helps in the decision on whether or not the drilling should proceed. DARJ-5

Yours sincerely,

Joshua Darbee

From: Susan Darcy [mailto:s.darcy@verizon.net]
Sent: Monday, March 31, 2014 12:21 PM
To: Oil Project
Cc: Hany Fangary; Petty Carolyn; Michael DiVirgilio; Peter Tucker; Nanette Barragan; DiVirgilio Michael; Hany Fangary; Carolyn Petty
Subject: Comments on Draft EIR

The DEIR understandably divides the project into phases including the Construction and Drilling phase and the Operations phase. When the DEIR discusses the 10 Significant and Unavoidable Impacts it refers to the Construction, Drilling and Redrilling periods. However, the way the DEIR and the timelines read right now it is easy to misinterpret that the re-drilling takes place during the initial 3-4 year Construction and Drilling phase and that there are only 5 significant and unavoidable impacts during the Operations phase. Based on my discussion with the EIR consultant, there are 10 significant and unavoidable impacts that occur during the Operations phase if and when the Workover Rig is in place (up to 90 days/year for the 30+ years) and if any re-drilling is being done which is apparently **in addition to** the 90 days/year for the Workover Rig (up to 30 wells for approximately 30/days per well and not more than 5 wells per year). Please make it abundantly clear in the EIR that the redrilling takes place during the 30 year Operations Phase, and the Agreement allows for an 87'-110' rig to be operating a total of 10 years of those 30 years (90 days/year times 30 years = 2,700 days plus

DARS-1

30 days/well time 30 wells = 900 days for a total of 3,600 days or 10 years). I think that people understand that the 87' drilling rig will be in place for the 3+ years of the Drilling phase but they don't understand that it can come back for another 900 days during the Operations phase and they are not fully aware that the Workover Rig is also drilling and creates the same nuisances risks. It should be more clear that Re-drilling is actually during the Operations phase and not the Construction and Drilling phase and that for up to 10 of the 30 years a Rig can be in place and operating.

DARS-1 continued

Thank you, Susan Darcy

From: cdecker20@yahoo.com [mailto:cdecker20@yahoo.com]
Sent: Sunday, April 13, 2014 7:33 PM
To: Oil Project; Monica Decker; Mr. Charles Leonard Decker
Subject: Public Comment on the Draft Environmental Impact Report on the Hermosa Beach Oil Recovery Project

To Whom It May Concern:

I have been a resident of Hermosa Beach for the past 4 1/2 years. During all of that time, I have been employed in the oil & gas industry (by ExxonMobil in Torrance for 3 1/2 years and Chevron in El Segundo for 1 year). I am currently on a short assignment with Marathon Petroleum in Texas City, Texas, but my wife and I will be returning to Hermosa Beach this summer and plan on voting in favor of the project.

I have found this issue to be very charged within our small community, pitting neighbor against neighbor. But from my observations, E&B Natural Resources and the projects proponents have consistently demonstrated a high degree of technical expertise, honesty and ethical business conduct. My observations of the opposition are not as flattering. They have resorted to theatrics and intimidation. I have felt threatened on more than one occasion.

DECC-1

I am offended that several one-agenda environmental groups from **outside of Hermosa** are taking a platform on this issue, when it's strictly a vote by the people of Hermosa Beach. I look to the City to call these people out as NPO's who use community based elections as a platform to promote their cause. Members of environmental advocacy groups should be **noted** as NON RESIDENTS **if** their comments are included in the final report.

I completed my Master's Degree at Stanford University (a somewhat liberal university) in Environmental Engineering (at a much younger age) and, at the time, saw myself as somewhat of an activist. I chose my field because of my strong desires to protect our planet for future generations. But as an engineer I quickly realized there are some who are content standing on the sidelines and throwing stones - offering no real solutions to the issues of the day. And their are others who have the courage to develop solutions that meet societies' needs in a sustainable way. I believe that E&B Natural Resources is on the right side of this philosophical debate and that is why I support their proposal 100%.

Thank you!

Chuck & Monica Decker

Terri Dinubilo

From: Dominic Di Rado <dirado100@gmail.com>
Sent: Monday, March 17, 2014 11:43 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on drilling in Hermosa

568 31st Street
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hello Mayor and Councilmembers, I am Dominic Di Rado, a student from Mira Costa High School, writing you this letter in regards to the oil drilling in Hermosa Beach. I, personally, am against the oil drilling. DIRD-1

One reason for this is because the harm it could do to the environment if an accident occurs. I know there are numerous safety measures in place to prevent accidents, but if an accident happens it will not only ruin the aesthetics of Hermosa Beach, but also the whole South Bay. It will also ruin the ecosystems around our beaches. DIRD-2 Also, the gases produced from the oil making process could be harmful for the people and environment of Hermosa Beach. DIRD-3

Another reason I am against the oil drilling is because the hassle and the inconveniences it will cause the residents of Hermosa Beach. If the oil drilling is permitted, the proposed drilling site will be within 0.5 miles of 50 percent of Hermosa Beach residents. DIRD-4 Nobody wants to live right next to an oil drilling sight. DIRD-5 Also, the constant noise and light emissions will be annoyances for Hermosa Beach that no one wants to have. DIRD-6 Also, traffic flow will dramatically increase because of the heavy truck traffic for the construction alone, not considering the fact this will surely increase once the drilling site is completed.

A counter-argument for this is the profit Hermosa Beach will make off of this. But in reality, a small portion will go to Hermosa Beach, while the rest goes to the oil company. It's said that Hermosa Beach will be in debt if they don't O.K. the oil drilling, but Hermosa Beach has over 4 million dollars in reserves. This will limit, if not abolish the likelihood of this so called "debt" DIRD-7

Thank you for reading my letter and hope you take into consideration the points a made during it.

Yours sincerely,

Dominic Di Rado

4/14/14

Verbal Comment on E&B oil project from resident of Redondo Beach relayed to Pamela Townsend, City of Hermosa Beach

A resident called and provided verbal comments concerned about impacts on/from: quality of life, noise, from spills, on the marine environment, associated with the introduction of this significant industrial land use in such a dense urban area, noise, odors, traffic associated with large trucks, additional truck traffic on streets outside Hermosa Beach, and impacts to pedestrian from large trucks.

DOEJ-1

.ri Dinubilo

From: Zachary Dushenko <zdushenko@gmail.com>
Sent: Monday, March 17, 2014 11:40 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

1014 4th St.
Hermosa Beach, CA 90254
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I'm assuming you've gotten a large number of these Emails already. If you've taken the time to read each one, you've most likely already noticed a pattern: STOP THE DRILLING. Honestly, I'm against it as well. I feel that oil will soon be useless(or at least should be), the possibility of catastrophic reciprocations from an accident are way too high, and that the community will blindly reject the drilling for as long as it goes on. I truly and sadly must say that I myself have been barraged with protests. What's honestly surprising to me is the lack of effort the drilling companies have expended in order to explain why this is good. Of course, already holding the rights to drill does probably weigh in their favor. DUSZ-1

Oil is obviously a non-renewable resource, so there is a finite amount of it on this earth. Thus, since our society has become so reliant on energy, renewable sources of energy have been sought out. Recently, there have been creations such as solar panels, wind turbines, geothermal generators, and even hydrogen power. With all of these resources at our disposal, do you really expect for oil to remain a popular source of energy? There's also the fact that many people have begun to be frightened of greenhouse gases. Since greenhouse gas emissions and their effects are very real, many citizens have begun to turn away from oil. The use of it for energy production is one of the most CO2-emitting processes currently known. More and more people have begun turning to Hydrogen-fuel cells for power. The popularity about them is contained within the fact that using it for energy only leaves a by-product of water. Hydrogen's not the only new, clean, renewable fuel source out there, either. Believe me when I say oil is going to drop off the Capitalist market. DUSZ-2

The oil itself isn't the only problem, though. There's also the fact that drilling for oil is incredibly disruptive to the ecosystem. If there were even the slightest leak, the sea life off of Hermosa's coast would turn belly-up. The drilling company would be to blame, even the smallest thing would be blown out of proportion, and it would be the BP Oil spill all over again. But there doesn't have to be an accident for the drilling to be disruptive. Even success can have catastrophic reciprocations. And no, I'm not talking about the butterfly effect, where it's a chain of events. No, the side-effects would be the direct result of the drilling company. DUSZ-3 Think about this: the drilling is taking place off of the coast of California, in an area already haunted by the fear of earthquakes. Now, when you take out oil from underground, the hole doesn't just fill up. At least, the hole shouldn't just fill up, otherwise you've got a problem. So, think about this: there is a giant gap of nothing in the ground underneath the water's surface, with a very different level of pressure contained within it that that of the surrounding DUSZ-4

. nat's going to happen? Well, the most obvious answer is it collapses. When this does happen, and this . nappen every time, the reciprocations are pretty severe. Sometimes even earthquake severe.

Aside from the economic and environmental issues with drilling off of the coast of Hermosa, there's also the political standpoint. This drilling company is playing off of a city council vote from 1958. It has been fifty-six years since the right to drill was given. There have also been protests against the oil drilling since 1958. basically ever since 1958, the City Council has been trying to undo the mistakes of their predecessors, while the citizens of Hermosa Beach have been yelling no. This has obviously been very effective. For the most part, all those voting against the drilling have not fully looked at the statistics. E&B promised the city $118 million-$270 million over a 34-year time span. The statistics also show that the city will expend $22 million over 20 years by denying E&B permission to drill. But do the protestors care? No, not at all. Most of them probably don't even know the whole background to this predicament. Since the situation seems to be boiling over now, one may be able to call it a current event 56 years in the making. DUSZ-5

Although the citizens of Hermosa Beach have a large case against the drilling, those on the side of E&B have a lot of reasons not to care what the community says. First off, I want to bring up once more, E&B has held the rights to drill of the coast for 56 years. They could have just started at any time without people even knowing what had just happened. Second, they offered the city a LARGE amount of money. Up to $270 million spread over 34 years, to be exact. With that much money, Hermosa Beach could… well… get rich. I mean, of course renovations can always be done, of course hiring more cops with higher pay ensures more protection. In all honesty, though, that money would most likely get stopped somewhere at the top, leaving a trickle for those below, just as always. Other than the taxes the city would get, many people have discussed how this would open up job opportunities. From what I've seen in my 15-or-so years living in Hermosa, a business hiring is never more than a few blocks away from your current location.

The general consensus of the Hermosa Beach community is that the oil drilling should not be allowed to take place. Everybody has their own reasons why they're against the drilling, be it for traffic reasons, political reasons, economic reasons, or anything else. As an energy source, oil is not only non-renewable, but also just not popular amongst environmentalists. Whether anything goes wrong with the drilling process or not, the ecosystem surrounding the extracted oil will suffer. Also, expecting the citizens of Hermosa to just sit down and be quiet about this situation is not to be expected. Until there is full certainty that the drilling will never take place, most people will not rest. Even after being offered millions of dollars, the residents will not back down. It should be noted that they haven't backed down for 56 years, and they shouldn't be expected to now. DUSZ-6

Sincerely,

Zachary Dushenko

1544 2nd Street
Manhattan Beach, CA 90266
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Layne Eichenlaub, and I am a sophomore at Mira Costa High School. In regards to the controversy of oil drilling in Hermosa Beach, I strongly believe there are many benefits, which make it worth pursuing. Although there are also understandable concerns, which need to be addressed, there are solutions. Overall, the benefits of this project outweigh the suspicions. I believe oil drilling in Hermosa Beach will not only give the community independence, but also allow room for immense profit for this and future generations. EICL-1

One of the many benefits of the oil drilling in Hermosa Beach, the city is expected to receive an approximate total of $519 million in profit. With this money, it will be a great help for the school system, and residents as a whole. Residents living in the area have rights to the soil. Approximately 1,000 property owners are expected to receive royalty payments, in exchange for their support of the project. These economic benefits will immediately have a positive impact on the city of Hermosa. Based on the numbers provided, it is evident pursuing the drilling project is the best option for the people of the city. EICL-2

A major concern with the Hermosa Beach Drilling project is the potential danger. This problem is easily avoided. A worry of many is the threat of oil spills. The project plans are to use directional wells, which are a stable way to guarantee the oil is kept safely far underground, with no way of reaching the surface. In California, there are currently 765 active wells thousands of feet below the ocean floor. The success of these active wells has proven the safety of this project. Due to the fact because of these wells we know this project can be done safely, there are no reasons to worry. EICL-3

Another major benefit with the continuation of this project is the opening and possibility of job opportunities. With the progression of this project, more and more jobs will open up for people to work. With that, those already working on the project will be able to keep the jobs they have. With our economy, it is necessary to take advantage of every job opportunity we get. With the approval of the oil drilling, we will be able to do this. At the end of the day, the Hermosa Beach drilling project is for EICL-4

the benefit of the people. This is yet another economic benefit, and reason why the Hermosa Drilling project should commence.

As someone against the drilling project, many understandable questions are raised. One of these important questions is the safety of the people. Just as I mentioned earlier, many of the same directional wells are currently active in California. It is guaranteed, the oil rigs are stationed so far under the surface it is impossible for there to be enough oil to reach the surface, and be dangerous for the people. This is due to the smart planning of the system, putting the rigs extremely far underground. EICL-5

Another question I would ask as someone who opposes drilling is the possible negative evolution of Hermosa Beach. What I feel is most important to Hermosa residents is the commonly known idea of "keeping Hermosa, Hermosa". As a small town, Hermosa Beach is one of the few places known as a somewhat historical area because it has stayed unique for so long. With the oil drilling, I would argue the future changes of the town not many would agree with. To counter this, there would be no detrimental changes to Hermosa, only economic benefits. With the rigs and piping so far underground, there is no way of seeing them. For the residents close to the oil, they are given royalty payments if they agree to the project. This takes care of the issue of happiness of the people, because they can decide whether they would like to do it or not, and if they do, earn profit from the project. Overall, from a resident's perspective on the side opposing the oil project, important questions can be answered. EICL-6

Due to the large profit oil drilling will produce for the city of Hermosa Beach, it is crucial the project commences. The residents of Hermosa Beach will enjoy the success and profit, while keeping a safe and healthy environment. There is no doubt if the project is pursued the city, and people of Hermosa Beach will not regret it. The community will thrive in profit rather than drown in debt, all while keeping Hermosa, Hermosa. Thank you for your time. EICL-7

Yours sincerely,

Layne Eichenlaub

From: JFF [mailto:rbstitch@verizon.net]
Sent: Tuesday, February 25, 2014 4:16 PM
To: Oil Project
Subject: Comments on HIA

Overall I am impressed by the HIA. My comments thus far are:

Could there not be more mitigations to further reduce the chance of a pipeline rupture resulting in oil loss to the ocean? FAUJ-1 Should double walled pipe should be required, maximum operating temperature and sulfur content of crude oil be specified (consistent with material of pipe including corrosion protection)? FAUJ-2 Perhaps ensure signage indicating the existence of the pipeline to reduce accidental puncture by construction equipment? FAUJ-3 Perhaps annual hydrotest requirement? FAUJ-4

I do not see why GHG emissions are a health factor as indicated in the appendix – it appears they are deemed one as residents have deemed them one. But is there a real local health impact from GHG emissions? FAUJ-5

I did not see an assessment or estimate of the injuries/fatalities which might occur during a worst case natural gas blowout event or sour gas loss of containment. FAUJ-6

John Faulstich

From: JFF <rbstitch@verizon.net>
Sent: Friday, April 11, 2014 8:32 AM
To: Oil Project
Subject: Additional Comments On DEIR

I think it would be helpful to provide some reality to the impacts which the DEIR says cannot be mitigated. For example, if XXX cannot be mitigated, provide an example of where XXX has occurred on a similar project and design, the number of times it has occurred and the total number of projects where it the chance of occurrence existed, as well as the impact on human life and the environment. I think people read that an impact cannot be mitigated and thus FAUJ-7

conclude it will happen, when in reality a number of the impacts may have never occurred in a similar project, or occurred once in a great number of projects.

John Faulstich

To: Ken Robertson; Ed Almanza
Subject: Questions regarding the DEIR

DEIR PAGE ES 5

In most City of Hermosa construction projects, financial penalties are imposed if the time frames for the project are not met.
Would penalties be part of the development agreement ? FLAM-1

When does the "clock start" for the 35 year lease. FLAM-2

DEIR PAGE 4.6-16

Who would pay for the needed upgrades to the fire hydrants in the immediate area ?
Could reclaimed water be used in fire suppression if an oil fire occurs ?
What agency has approved the use of reclaimed water in drilling operations ?
Has the process of using reclaimed water been used in other drilling operations ? FLAM-3

DEIR PAGE 4.6-18

Will the Emergency Response Plans, etc, be completed prior to the vote on the project ? FLAM-4

DEIR PAGE 4.6 -1

The sump drain in the north driveway area drains to the sand not the ocean.
The lower pump sump also flows to the north driveway area and not off site to the ocean. FLAM-5

DEIR PAGE 4.9-2

What is a "100" year storm ? How many inches of rain water ? FLAM-6

DEIR PAGE 4.9-13

I would like to see a plan view AND a profile view of all the proposed phases including 1, 2, 3 and 4.
These plans should include the containment capacity for oil and water in a normal or 100 storm or a fire event that requires fire suppression. FLAM-7

DEIR PAGE 4.10-9

Would any zone changes be needed to do this project in any of the areas affected ? FLAM-8

DEIR PAGE 4.12

Would additional crossing guards be required on Valley at both 6th and the new (temp) city yard. Who would pay for this service.
The illustrated crossing guard locations is inaccurate. FLAM-9

DEIR PAGE 4.13-108

Consider one way of Valley south of 8th or 6th NOT Pier. FLAM-10

DIER PAGE 4.13-110

The plans for the new yard do not show exit as mitigated in Tr-4a FLAM-11

DEIR PAGE 4.14-2

Same as 4.6-1 FLAM-12

DEIR PAGE 4.14-7

Consider hooking up the sewer lateral to a restroom during phase 1, similar to the proposal for phase 2 and 3.
The noise, smell etc for pumping out portable toilets for 93 construction personal for the many months of phase 1 would be significant.
There is a second lateral in the south east corner FLAM-13

DEIR PAGE 4. 14-9

FYI The existing sewer lateral at the north east property, joins the 8th Street City sewer which then conects to the San Dist line on Valley FLAM-14

DEIR PAGE 4.14-10

The lack of profile plans that could show or describe retention of oil and or water during an significant event, (fire, storm, etc) is a major concern, in particular, phase 1 . FLAM-15

DEIR FIGURE 2.6 PAGE 2.15

The plan shows Proposed Project Parking in the S/W corner but there is no addition information. In addition , this is private property. FLAM-16

CBA PAGE 59 and 60

A Is there any new City of HB Fire Equipment needed ? Trucks etc

B The new Fire Marshall:

Is that person a sworn or non sworn employee. 40 hrs per week etc ?

Assuming that this person is being hired as a expert in inspecting and Oil related issues, would that person be required to live within a 10 to 20 minute emergency response time frame for any emergencies.
Note: We have had Fire Dept employees that commuted from different States FLAM-17

ADDITIONAL QUESTIONS

1 There are several references that indicate that the proposed site is 1.3 acres and several that state 1.6 acres. Which is correct ? FLAM-18

2 I would suggest that the soil be tested in the south western section of the existing yard. That was an "clean out area " for many projects, including oil based paints and solvents. The documents in these reports do not show any activity in the suggested area. FLAM-19

3 Would a new EIR be required to build the temporary city yard or is this EIR sufficient. ?
Would a new EIR be required for the perm new yard? FLAM-20

4 The traffic study addressed traffic on 6th as well as Valley Drive but does not address the potential of approx 100 vehicle trips per day that the current city yard generates. These vehicle trips per day would then be transferred to the temp and or permanent city yard area and could have an impact at Pier/ Valley. These vehicle trips would also merge with normal City Hall traffic. FLAM-21

5 Consider reopening up north bound Valley Drive at Herondo so all Oil/construction traffic would only be on Valley between Herondo and 6th. This would eliminate the project traffic on Pier at Valley and reduce PCH traffic.
This would still allow site off valley and continue exit off 6th. FLAM-22

6 Where is the data to support costs for the temp and new yard ?
Where is the data to to support cost for the soil remediation in the existing city yard for phase one ? FLAM-23

7 Does any of the property in question, 6th/Valley area/ ROW area /City Hall area ,need zone changes ? If so, will it be done at time of the vote ? FLAM-24

8 Has the ballot "language " been developed ? FLAM-25

9 In the proposed site plan for the temporary city yard, please consider placement of a gate at the east side near the parking lot "bulb out"
Public traffic in that yard area could be hazardous.
The illustrated parking could be used for yard vehicles or city hall vehicles, storage etc
. As noted, all employees should be prepared to park remotely but public parking in that area would be counter productive. FLAM-26

10 This last year, the PD has "tested"closing off Bard.
Please utilize the results during the temp and perm yard in that City Hall area. FLAM-27

11 The old Stinnett oil well in the yard had to be "bled off" on a regular (weekly at least) basis. There was some kind of pressure build up.
The fumes were repulsive.
This was done by all previous owners (Stinnett, McPherson, City of HB) until it was capped/ removed.
Does the new metod of extraction address both tne pressure and fumes issues? FLAM-28

12 Regarding the temp yard: Is there any opportunities in the existing M1area , similar to what was just approved for a new gym, that could be negotiated. FLAM-29

13 The lack of any safety response plans for any of the proposed phase's is unsettling if not unacceptable.
As an example,
On the South side of the project is the inlet to one of the main county storm drains (Herondo outfall)
It is 200 feet down hill from this site.
The proposal should be detailed in how to keep oil / water / foam from entering that inlet.
On the North side of the project is the inlet to the newest city/county storm drain projects. Oil in that system might not be repairable.
I propose that the safety response manuals be developed prior to the election or at least prior to approval/ permitting in each phase.

FLAM-30

Thank you for your consideration.
Mike Flaherty
Planning Commission
City of Hermosa Beach

448 23rd place
Manhattan Beach, CA 90266
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I, John Freiburghouse, a student at Mira Costa High School believe that the city of Hermosa Beach should go through with the drilling. Oil now a days is such a valuable product that has been creating jobs and conflicts throughout the world. The sooner we begin to tap our own resources is the sooner we get out of other countries for their resources. FREJ-1

There are many benefits to the oil drilling off the coast of Hermosa Beach. One of such being that there will be many jobs created. These jobs are not overseas too, they are jobs for locals since the drilling will occur in our very own backyard. The unemployment rate is higher than ever and this could produce just what some people are desperate for in this day and age. FREJ-2

One controversy in the scientific world is the "hydrogen powered" car. Car makers and scientists have been trying to harness hydrogen gas as a more economically stable resource to power our vehicles. The big question is though, how long will this take to finally be able to use this alternative in a way that is safe. Hydrogen gas is extremely volatile and even the slightest puncture in the gas container will cause an explosion or cause the vehicle to catch flames. FREJ-3

The people of Hermosa Beach are against the idea of drilling off their shore because they believe the image of their beach will be tarnished. Instead of going out to the sight of nothing beyond the ocean they think that each day they will be staring at a huge oil rig on the ocean, but what they don't know is that the oil company has already accounted for that. This drilling will not be done on top of the surface or even off the coast! It is an underground system so the people of Hermosa won't even know its there. FREJ-4

An argument that the people of Hermosa may present is the idea of oil spills. Oil spills have always been a risk when it comes to drilling and if there was an oil spill it has the potential to cause damage to city. The oil company has already come up with a solution to that. They have spent millions of dollars in ensuring that the pipelines are secure and well protected because not only would the city be hurt by an oil spill but the company itself would lose its initial investment as well as all of its product. FREJ-5

Drilling for oil is an option that the people of hermosa should not pass up, it is our only safe alternative at the time besides electrical vehicles. Jobs will be created in our own backyard, we won't be as dependent on foreign nations for our oil which may cause the gas prices to decrease. This is a chance that all people should take advantage of. FREJ-6

Sincerely,

John Freiburghouse

April 14, 2014

RECEIVED
APR 14 2014
COMMUNITY DEV. DEPT.

Ken Robertson
City of Hermosa Beach
Community Development Department
1315 Valley Drive
Hermosa Beach, CA 90254

Re: E&B Oil Drilling & Production Project Draft Environmental Impact Report
State Clearinghouse #2013071038
Comments to Section 4.7 Geological Resources/Soils

Dear Mr. Robertson:

This letter is in response to the above referenced Draft Environmental Impact Report (DEIR) issued February 2014. The project as described in the DEIR will consist of 30 oil production wells and 4 deep wastewater injection wells. Recent research and data collected by various federal and state agencies has reinforced and added to the now generally accepted scientific conclusion that waste water injection wells increase the risk of induced seismicity, especially in the vicinity of known faults. Additionally, new evidence is emerging that enhanced oil production wells similar to those proposed for the project may also trigger induced seismicity.

Due to high density of population and structures and earthquake intensifying soil conditions in Hermosa Beach, the effects and potential negative impacts of seismic activity are magnified. FRIP-1

The DEIR Section 4.7.1.3 Geologic Hazards is deficient in adequately assessing the induced seismicity hazards related to produced water injection and enhanced oil production wells. The proposed DEIR mitigation measures are not appropriately current and sufficient given the recently established consensus and growing body of knowledge about the impacts and significant risk of induced seismicity. Moreover, the DEIR relies primarily on the analysis provided by the Project applicant's consultant, Geosyntec Consultants, and makes no independent analysis of the risks associated with induced seismicity.

Specifically, the following areas have not been adequately addressed and require further independent evalualuaton:

Project Area

The DEIR states that the Proposed Project Sites are not located within a fault-rupture hazard zone as defined in the Alquist-Priolo Earthquake Fault Zone Act. This is only true for the surface structures and does not include an adequate assessment of the sub-surface well locations relative to known and possible unknown fault zones, in situ stresses and pore pressures. FRIP-2

Hazard Assessment

While the scientific consensus is that produced water disposal wells cause induced seismic activity, there is a regulatory gap in addressing induced seismicity, and deficiencies exist in current hazard assessment methodologies[1]. While some local and state jurisdictions outside of California have begun to address this risk, Federal, State and Hermosa Beach codes do not adequately address induced seismicity. This is confirmed by Geosyntec Consultants in the applicant's Subsidence and Induced Seismicity Report.

The National Research Council of the National Academy of Sciences (NAS) has concluded the following:

1. Increased pore pressure in rock reduces natural friction on a fault.
2. Pressure from water injection moves over extended distances.
3. Injection fluids cause a cumulative rise in formation pressure.
4. Induced seismicity can be from a critically stressed fault near human activity.

FRIP-3

Given this potential risk, after-the-fact well monitoring as proposed in GEO.1 and GEO.2 is reactive and inadequately relies on the well operator to self-monitor. The proposed inspection after a 0.13g ground acceleration does not address the presence or determination of induced seismicity. Moreover, the Project applicant's induced seismicity hazard analysis is general in nature, relies primarily on past reported induced seismic events and does not adequately address the in situ conditions and proposed well bore locations specific to the Hermosa Beach project. A robust hazard assessment specific to actual well bore locations should be made before well operations begin and, at a minimum, evaluate:

1. Net pore pressures
2. In situ stresses
3. Information on faults (known and potential unknown),
4. Background seismicity, and
5. Gross statistics of induced seismicity and fluid injection for the proposed site activity.

Consideration should also be given to emerging site specific hazard assessment methodologies.

Fault Zone Mapping

As evidenced by the recent 4.4 magnitude earthquake on March 19th, 2014 on a previously unknown fault under the Santa Monica Mountains, the potential for unknown faults in the vicinity of the project area is real. According to the Southern California Earthquake Center (SCEC), many still unknown blind thrust faults may still exist in Southern California. The mapping of offshore fault zones is particularly challenging. The SCEC states: "Numerous fault traces have been mapped on the shelf in Santa Monica Bay (Vedder, 1986) although possible nearshore fault traces are presently unknown due to lack of data in the immediate coastal area" and "The Newport-Inglewood, Palos Verdes, Santa Monica, and Malibu Coast faults extend offshore, where their geology is poorly understood compared to onshore faults."[2]

FRIP-4

[1] National Academy of Sciences, 2012, "Induced Seismicity Potential in Energy Technologies"
[2] "Active Faults in the Los Angeles Metropolitan Region"; SCEC Group C Report

Additionally, the 2008 version of the USGS National Seismic Hazard Maps (the most recent version) does not account for many induced earthquakes.

This creates an added potential risk for induced and natural earthquakes that has not been adequately addressed in the DEIR. The probability of drilling and injecting in the close vicinity of an unknown or unmapped fault should be factored in the risk assessment and mitigation analysis. This risk should be independently evaluated in the EIR.

Area of Potential Influence

On page 4.7-21 of Section 4.7.3.4, Impact GEO.2 of the DEIR states that the Area of potential influences from injection wells is "small". This is contrary to recent scientific analysis.

Earthquakes associated with disposal wells are not necessarily limited in time and space to injection operations. The area of potential influence from injection wells may extend over several square miles, with earthquakes triggered more than 10 miles away. Induced seismicity may continue for months to years after injection ceases in some special cases, but the mechanisms that cause such effects are not well understood. [3] In January 2011, the Arkansas Oil and Gas Commission placed a permanent moratorium on permitting of new or additional Class II disposal wells in a 1,150 square mile area surrounding the Guy-Greenbrier and Enola seismically active areas for this very reason.[4] This was the result of increased seismic activity with a clear connection to oil and gas production related waste water disposal wells in proximity to active fault zones. The Geosyntec report does not indicate an estimated proximity of wastewater injection wells to the Offshore Fault 103 or Palos Verdes Fault, only indicating that they are located a "sufficient distance". The location of individual wastewater injection and production wells to known faults, and the potential risks, should be independently evaluated in the EIR. FRIP-5

Earthquake Swarms and Fault Interaction

Oil and gas drilling operations are known to cause a series of minor earthquakes in a limited time and area. These minor earthquakes are known as Swarms. Ongoing research suggests that induced earthquake swarms may have negative interactions with fault zones. This potential risk should be independently evaluated in the EIR. FRIP-6

Codes and Regulations

According the Project applicant, the California Laws for Conservation of Petroleum & Gas document do not reference codes that specifically address the issue of induced seismicity. Monitoring of well pressures will be conducted by the understaffed DOGGR and will rely largely on self reporting by the well operator. The risk associated with this lack of local regulatory oversight should be independently evaluated in the EIR. FRIP-7

[3] Section 3.4.1; Ground Water Protection Council (GWPC) White Paper II on Induced Seismicity, November 2013
[4] Arkansas Oil and Gas Commission

In conclusion, the proposed oil operation will create the dangerous risk combination of induced seismicity in close proximity to active major faults, with potential for unknown faults, in a densely populated community, with damage intensifying soil characteristics, and catastrophic consequences to mechanical or structural failure of oil equipment and infrastructure. This cumulative risk should lead to a determination of significant impact and the only acceptable mitigation measure, which can fully protect the health, safety and welfare of residents, of "No Project". FRIP-8

Thank you for your consideration.

Sincerely,

Philip R. Friedl
701 Loma Drive
Hermosa Beach

From: H F [mailto:wisteria4@hotmail.com]
Sent: Tuesday, March 04, 2014 4:52 PM
To: Oil Project
Subject: Oil project in Hermosa

Dear Sirs:

I hope this mail finds you well, and would like to introduce new, unique absorbent for all types of oil, chemical, and hydraulic leaks and spills, the most efficient and eco-friendly solution today:

http://www.savesorb.com/videos

The all-natural, biodegradable peat-mix product was launched last year, and given its highly 'encapsulating' nature that is also hydrophobic, we have quickly established relationships with CA municipalities including Beverly Hills, Santa Monica, L.A. County Beaches & Harbors, and of course, Manhattan and Redondo Beach. FUJH-1

We strongly feel SaveSorb can be a benefit to your city as it will do wonders

for various leaks and spills, both on land and at sea, saving time, money, and the environment. Our products come in different shapes and sizes, and we can also custom-design new items for your specific needs.

We are also in touch with some oil companies, but being a local resident who cares about keeping the area clean, I am prepared to do a demo to prove what SaveSorb can do.

I thank you in advance for your attention, and I look forward to discussing the matter with you.

Sincerely,

Hiro Fujii
SaveSorb
310.346.1890

From: Michelle Geller [mailto:michelle.geller173@gmail.com]
Sent: Friday, February 28, 2014 9:39 PM
To: Oil Project
Subject:

We have come up with a Proposal regarding oil drilling in Hermosa. We hope you read our proposal and consider the environmental effects of this serious issue.

-Michelle Geller and Connor Axtell [students of Chadwick School]

We propose that the City Council of Hermosa Beach should not allow E&B Natural Resources Company to drill for oil because of harmful effects to the biodiversity of Hermosa Beach's coastline, and the inherent poor air quality. GELM-1

The proposed prohibition of drilling for oil in Hermosa Beach will at best preserve the biodiversity in Southern California. Drilling for oil will have primarily negative environmental outcomes. As seen through the history of the E&B Natural Resources' accidents when drilling, oil spills could potentially destroy the biodiversity. Hermosa Beach should act in such a way to preserve the ocean that will be able to sustain itself for generations to come. GELM-2

California's geology and climate has made it a primary location for biodiversity because of its large variety of plants and animals both on land, and in the water. There are 2,153 native plant species to California alone. The biodiversity on the coast lines and ocean is even larger. Birds, plants, and oceanic organisms find their homes and environments along California's sunny coastline. The West coast of California, a floristic province, is a hotspot for a variety of species. ("Calacademy") The issue of whether to drill or not should consider the biodiversity of Hermosa Beach and what is at stake. Marine life could be endangered because of possible fuel runoff and debris that would be produced from the site. Oil spills damage the entire food chain of the affected area, and can make that area much less productive, for the years following ("ThinkQuest"). Air pollution could be deadly to birds that inhabit and live around the site.

If an oil spill should occur, the biodiversity and sustainability of ecosystems will be at high risk. Also rare species of animals could be affected if the ecosystem fails under the presence of oil in the water. The Xantus's murrelet, living from Southern California to central Baja California is one of the rarest sea birds in the world. They are only found in this area, and they are a vital member of their food web. The birds' ecosystem impact helped to prevent a Chevron liquid gas terminal from opening in the breeding grounds near Mexico (Biological Diversity). This species should also exemplify the importance of preventing another oil company from drilling. The proposed site is not far from the the ocean, and in the event of a spill, there is no question that oil will spill into the ocean through drainage systems that pollute our waters. The current off the Californian coast moves south to places such as Baja California and San Diego, oceanic ecosystems enriched with biodiversity. The cold water currents move at impressively fast rates making an oil spill in Hermosa Beach detrimentally harmful the organisms and animals thousands of miles away. A small spill off of the coast of Hermosa Beach could be the equivalent to oil traveling from Los Angeles to Salt Lake City.

Areas along our coast are currently threatened with human impacts already, such as climate over exploitation, habitat loss, and invasive species. Biodiversity is also what you don't see: the micro organisms. Phytoplankton is the basis and fundamental of the food chain. The entire ecosystem would collapse if oil were to destroy the phytoplankton population. The biodiversity is already threatened Southern California. An oil spill wouldn't just affect the local Hermosa Beach oceans, but also reach the larger coastline. ("Calema) With this new increase of threat due to oil, biodiversity may be completely lost. The consequences are detrimental since extinction is irresistible and it will be impossible to undo the harm inflicted on the biodiversity.

Information taken directly from E&B Natural Resources Website ("Stop Hermosa Beach Oil")

"E&B Natural Resources Drilling Spill Facts

- E&B averages 1 reported spill every 4 months over the past 6 years in california
- an average of 7 gallons of toxic fluid has been spilled every single day by E7B over the past 6 years in California
- Nearly 16,000 gallons of toxic fluid has been spilled by E&B in California over the past 6 years
- On February 23, 2012, E&B spilled 2000 gallons of hazardous red diesel"

Can the citizens of Hermosa Beach and surrounding communities trust E & B to keep Hermosa Beach clean and safe? With the history of the company, and the potential harmful effects examined above, the biodiversity is clearly at stake. More people should be aware of what "drilling for oil in Hermosa" really means, so we can protect the biodiversity for preemptive protection of nature and make an educated

decision about drilling in Hermosa Beach. Should we allow to E&B to drill for oil, or pay the settlement of 17.5 million? Hermosa beach should act in such a way to preserve nature-which is priceless.

Terri Dinubilo

From: Raquel <raquelgerard@gmail.com>
Sent: Monday, March 17, 2014 6:14 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

529 3rd Street
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Raquel Gerard and I am a sophomore at Mira Costa High School. I am sending you this e-mail to share my opinion with you about the current oil drilling discussion. I believe that drilling off the coast of Hermosa Beach would negatively affect the community and the environment of Hermosa Beach. These are the three reasons why I believe that drilling in Hermosa Beach would not be the right choice. GERR-1

With the future of technology and the importance of improving the environment, there is a chance that hydrogen cars could become a method of transportation. If hydrogen cars became popular, then there would not be as high of a demand for oil. Hydrogen cars would positively impact the environment, because the gas in cars releases carbon dioxide. The carbon dioxide released from cars is what causes global warming. GERR-2

We have all read about oil spills happening and how they dramatically impact the area adjacent to the spill. We would not want to worry about harming the sea life that lives in beautiful Hermosa Beach. Also, if an oil spill did happen, it would result in closing the beach for many days. People would worry about going to the beach in case oil did leak. We don't want to risk losing the beautiful resources we have around us if an oil spill did happen. GERR-3

We try to keep our little beach town as environmentally friendly and clean, as possible. If oil drilling did start in Hermosa Beach, there would be an increase of traffic in the city. With more trucks carrying the oil that was produced, there would be more traffic and more carbon dioxide released in our air. By having trucks drive through our city would change the character from a small town beach community to an industrial feeling. GERR-4

Many people do believe that oil drilling will be a great thing for Hermosa Beach. They believe it will bring in easy money for the city and that money could be used to help the community. I think that there could be a safer and better way for the environment to raise more money for the city. For example, the city could increase the fines for smoking and drinking alcohol on the beach. GERR-5

Drilling in Hermosa Beach would ruin the closely knit feeling we have in the town.People might stop going to the beach as a result of being concerned about an oil spill. The need for oil could dramatically decrease if hydrogen cars became popular. People would not enjoy the noise caused by trucks driving past their homes carrying oil. I hope that you can take my concerns in consideration while making this decision.

Addendum to GERR-1

Yours sincerely,

Raquel Gerard

Terri Dinubilo

From: Josh Gillam <gillamjosh@gmail.com>
Sent: Monday, March 17, 2014 7:37 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Hermosa Beach Oil

329 5th street

Manhattan Beach, CA 90266

March 17, 2014

Mayor Michael DiVirgilio

Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,

City Manager Tim Bakaly

City of Hermosa Beach

1315 Valley Drive

Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Josh Gillam and I am a proud student of Mira Costa High School. After all of the debate and controversy surrounding the oil drilling in your town I find that it is only necessary to voice my opinion with both science and reason. I don't live in Hermosa, but as a citizen of Manhattan Beach I believe this issue affects all residents of the south bay. I completely support the idea of drilling oil in your area due to the fact that it will result in nothing but positive outcomes. I truly believe under certain laws and safety regulations the drilling of oil in Hermosa can help the city prosper. GILJ-1

One key problem that worries the residents of Hermosa Beach is many doubt the Health regulations. I can assure you that E&B Natural Resources has only the best of intentions when it comes to the well being of Hermosa residents. At first, I was against the idea of drilling because I thought it would pollute the city and cause serious health risks. My perception changed when I found out that E&B has to follow a certain set of safety regulations set by many different associations, laws, and acts of public health/safety (Clean air, water, etc.). Clearly, the people come first in the eyes of the company. This will result in absolutely no health/safety hazards and will bring a ton of profit to the city. GILJ-2

After the concerns about health, the next issue is safety. Safety is actually one of the top reasons I support the drilling of oil in Hermosa. We all know that oil is dangerous and highly flammable which can scare us from drilling in our backyard but E&B uses the method of horizontal drilling. Horizontal drilling is established as one of the safest techniques to obtain natural resources. As a matter of fact, it is so safe that we wont know the drilling is occurring. This is due to the scientific process of placing the pipe underground rather than in the ocean or on the surface. Therefore, the drilling of oil in Hermosa will be one of the safest drilling sites in the area. GILJ-3

After examining the guidelines of E&B I found how beneficial the drilling of oil in Hermosa will be. A fellow classmate of mine has a parent in the company who stated convenience is also a top priority. The moment I heard this I knew only good would come from the oil drilling. Many may think trucks with vast tanks of oil will be speeding down Pier Avenue but this is not the case. E&B has set standards for the transportation of the oil so the public will not be bothered. Cleary, with first-hand evidence of the regulations set by the company, the drilling in Hermosa Beach is aimed for efficiency and convenience. GILJ-4

As you can see I am a strong supporter of the oil drilling in Hermosa. If E&B follows the rules and regulations they are required to obey then no harm will be done. As a matter of fact this may bring many profits to the city itself. All in all, I hope that the city of Hermosa allows the drilling of oil and it brings significant benefits to the people of hermosa. GILJ-5

Yours sincerely,

Josh Gillam

3619 N. Poinsettia Ave.
Manhattan Beach, CA 90266

March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hello city council members. My name is Jenessa Gonzalez and I am writing to you all in regards to the oil drilling in Hermosa Beach.

I'd like to state my opinion as one that is not in favor to this proposition for many reasons. However one in particular is the hazards that come along with this huge project. As you all may be fully aware, the project currently has four steps that occurs within a 30-35 year space. The first step is site preparation. Not only is this a dangerous task due to the location of the drilling site however it interferes with commutes to and from Hermosa; in turn affecting other beach communities. Stating that this project will occur within three decades of continuous work, citizens of Hermosa will be having to deal with ongoing noises and construction work for over a long period of time. Is this fair to the citizens having to deal with all that this project comes along with? GONJ-1 GONJ-2 GONJ-3

I would also like to point out why this project is taking place. The oil being drilled is used for cars. Obviously. But adding more carbon dioxide into the air is extremely toxic to not only human's health but the health of the Earth. As carbon dioxide is released into the air, the earth's temperature in the atmosphere increases. Thus, making the fluctuation of the earth's normal temperature extremely unbalanced. Scientists are making more environmentally friendly cars, such as hydrogen powered cars and electric cars that can contribute to the earth's health and yours. Drilling in Hermosa defeats that very purpose. GONJ-4

Lastly, the concern for the well-being of Hermosa's citizens is vital to this project. There are many people that are against this project such as the people in the organization, "Stop Hermosa Beach Drilling." Their slogan that they have on their website states 'keep Hermosa hermosa!" Hermosa Beach is an amazing community and also is a beautiful beach city. As I have stated, this project takes up a little less than a half of a century to complete. In that period of time, Hermosa will be viewed as a drilling site instead of the wonderful community that it is. GONJ-5

Although this project is seaped with a great amount of money against the city of GONJ-6

Hermosa, the long term effects to this project are not to be ignored. It is not required to be a safe project, the location undermines under fifty percent of Hermosa's population and the citizens will be having a clear view of the process, which isn't appealing at all.

In conclusion, this project will be affecting everyone. Including yourselves. I am grateful to have had the privilege to write to you all and discuss my position in this controversial position. Thank you and have a wonderful day.

Best regards,

Jenessa Gonzalez

RECEIVED
APR 14 2014
COMMUNITY DEV. DEPT

Comments to the Draft EIR

To: Ken Robertson

: Mrs.Marilyn Gudmundsson,1830 The Strand.

Hermosa Beach, CA 90254

April 13, 2014

In 1969, Congress enacted the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA followed. The most conspicuous of CEQA mandates that an EIR be filed by all public agencies, boards, and commissions which propose to carry out or approve any project which may have a significant effect on the environment. An EIR is primarily meant to serve as a document bringing to the surface, and therefore to the public, the nature and consequences of, as well as Alternatives to a proposed project.In this EIR, one alternative is The NO Project Alternative. (6.1.1.) The report goes on to report that if oil production does not occur in the area, this may result in continued importation of crude oils from overseas that would otherwise be produced locally. THIS DOES NOT SOUND LIKE A GUDM-1

Company Work Street Work City, Work State Work ZIP **T** Work Phone **F** Work Fax Phone mdbolsseau@gmail.com Work URL

UNBIASED VIEW ! How can a city, as crowded as Hermosa Beach, be expected to provide the nation with oil(gasoline, diesel, and jet fuel)? Why is the EIR contradicting an Alternative?

The people have a right, at the very least, to expect that those who must decide, will approach their task neutrally, with no parochial interest at stake... how can Hermosa City Council which has cooperated with E&B Oil. may find it difficult, if not impossible to put regional environment considerations above the narrow selfish interests of their city? Therefore, Hermosa shouldn't be the lead agency! The EOR needs to be performed by a LEAD agency that not only the "first to act' but also has the BROADEST viewpoint and UNBIASED. The court case of Bozung v LAFCO, the court ruled that the city had a vested interest and parochial view because they would profit in the end... just like Hermosa now. Why can't Los Angeles County be the LEAD AGENCY? It is a different agency with a larger regional scope. Let us have Los Angeles County prepare an EIR, to make this process fair and unbiased! GUDM-1 continued

I do not want Hermosa Beach Municipal Code to change from a code protecting the citizens, to one protecting the OIL company. Chapter 21-A .The oil production code will amend the prohibition on process operations to allow oil and gas processing and treatment activities, chemical separation of oil and gas constituents and the removal of impurities. Includes oil stripping, hydrogen sulfide and carbon dioxide removal systems, depropanizers, debutanizers or other types of fractionations, sulfur recovery plants, wastewater treatment plants and separation and dehydration of oil/gas/water. IN HERMOSA BEACH, we have children living here.???? They are trying turn Hermosa Beach into a oil town. it is a beach town with crowded conditions. GUDM-2

How will we protect our water? Our ground water is important for our survival and we are going to have oil drilling that will come in contact with that precious fluid. Because water is precious not the oil. Cannot drink oil!! The HALLIBURTON LOOPHOLE, named after the company that patented an early version of hydraulic fracturing, passed during The Bush-Chaney Administration. The loophole exempts the oil and gs companies from the requirement of the SAFE DRINKING WATER ACT. Manufacturers and operators ARE NOT REQUIRED to disclose all their ingrediants! How is Hermosa Beach going to be protected from these chemicals? I demand that the loophole be disclosed for the citizens of Hermosa Beach on the ballot to be voted on! GUDM-3

Impact # HWQ.2

A rupture or leak during oil drilling operations, from pipeline or from other infrastucture could substantially degrade surface water and groundwater quality. Significant and UNAVOIDABLE! Why are we continuing this EIR with a statement like this? Something is unavoidable and we are not stopping this EIR? This statement is a deal-breaker and i demand to know why we are continuing. GUDM-4

Company Work Street Work City, Work State Work ZIP **T** Work Phone **F** Work Fax Phone mdboisseau@gmail.com Work URL

According to The National Geographic(March 2013). the first year of EVERY new well. from drilling to fracking to early production it would entail 2,000 truck trips. How can Hermosa protect the citizens with that many trucks coming into the city? Our greenbelt would have to be destroyed to make room for these huge trucks!!

GUDM-5

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April 14, 2014

RECEIVED
APR 14 2014
COMMUNITY DEV. DEPT

Comments to the Draft EIR
To: Ken Robertson
From: Shaun Gudmundsson 1830 Strand, HB

After reviewing this Draft EIR, a particular statement made by the Lead Agency, The City of Hermosa Beach, is extremely troubling and ,in many ways, conflicts with the main reason we have EIR's: Environmental Protection.

This particular statement is on page 5 of Section 2 and is as follows:
"Pursuant to the March 2, 2012 Settlement Agreement between the City of Hermosa Beach, E&B, and Macpherson Oil Co., the City's primary objective is to comply with the California Environmental Quality Act and place on the ballot a measure allowing the City of Hermosa Beach electorate to decide whether or not to approve the Applicant's Proposed Oil Project and a Development Agreement to vest the Project so that, if approved, the Project cannot later be invalidated by a vote of the people." GUDS-1

What troubles me with the objective statement made by the Lead Agency is that if the Proposed Oil Project is approved, the Development Agreement is meant to make it so the "Project cannot later be invalidated by a vote of the people." It's extremely suspicious that the City intends, as it's primary objective, to ensure that the citizens cannot invalidate the Proposed Oil Project by a vote. This is protecting the interest of the Applicant, E & B Natural Resources Management Corporation(E & B), and in particular their Number 1 objective listed on page 4 of Section 2 of the EIR:

"Develop the Proposed Oil Project consistent with the 1993 Conditional Use Permit and the March 2, 2012 Settlement Agreement, with the utilization of directional drilling techniques from the Project Site, which is the current City Maintenance Yard;"

With the current contents of this Draft EIR, I believe that this document does nothing but cater to E&B's main interest and the circumstances surrounding the 2012 Settlement Agreement. In order to insure that this Draft EIR is ensuring the Environment is the number one concern, here are some revisions I propose:

1.) There must be clarification on what exactly the City of Hermosa intends when it states in this DEIR that if the project is approved, "The Project cannot later be invalidated by a vote of the people". Who is "the people"? Does this just mean the citizens of Hermosa Beach or does this mean any citizens in the future who feel like they have a right to vote on the matter? Will neighboring communities like Redondo and Manhattan, who will inevitably be impacted by this Project, fall victim to this Objective as well? Who is this Objective meant to protect and if the people won't be able to invalidate the Project after approval, than who specifically will have the authority to? GUDS-2

2.) To ensure that there are no biases arising from the Settlement Agreement between E&B and the City of Hermosa Beach that would influence the Lead Agency's (the City of Hermosa Beach) production of this Draft EIR, it is vital to the validity of this EIR process that *All communications between E&B(the Applicant) and the City of Hermosa Beach(the Lead Agency) be disclosed.* It would make sense that the EIR contained a copy of these records in the Appendix or at least that the EIR pointed out clearly where we can find a

copy of these records. In the recent court case in the 5th Court of Appeals, Citizens for Ceres v. Superior Court of Stanislaus County (2013), the court came to the conclusion that: " the city and developer waived attorney-client and attorney work-product privileges for all communications disclosed before the city approved the project. Therefore, communications under the scope of Section 21167.6, subdivision (e) must be included in the administrative record. The common-interest doctrine still applies to communications protected by privilege disclosed after project approval." (Source:http://www.rmmenvirolaw.com/2013/07/fifth-district-court-of-appeal-holds-that-common-interest-doctrine-cannot-apply-to-protect-disclosures-between-a-lead-agency-and-a-developer-before-project-approval/)
I believe that this ruling should apply to this situation here in Hermosa Beach with regards to the Proposed Oil Project. GUDS-2 continued

In conclusion of my comments as a concerned Hermosa Beach resident who does not want to see his City head down a road that will inevitably put the entire community's and region's delicate environment at risk, I would like to end with an excerpt from the 1975 CA Supreme Court's ruling on the case Bozung v. LAFCO:

"The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind. CEQA does not, indeed cannot guarantee, that these decisions will always be those that favor environmental considerations. At the very least, however, the People have a right to expect that those who must decide will approach their task neutrally, with no parochial interest at stake...Speaking generally, therefore, it seems clear that the officials of a municipality, which has cooperated with a developer to the extent that it has requested the annexation of that developer's property for the express interest of converting it from agricultural land into an urban subdivision, may find it difficult, if not impossible to put regional environmental considerations above the narrow selfish interest of their city."(Source: http://digitalcommons.law.ggu.edu/ggulrev/vol6/iss1/7) GUDS-3

I believe there are parallels that can be drawn between this Court's ruling and the current situation surrounding the Proposed Oil Project in Hermosa Beach. If the Lead Agency produces a thorough and viable EIR, than there should be no doubt that the correct action in the end will be taken, which is to deny the Proposed Oil Project in order to safeguard the Hermosa community and surrounding ones, ensure the safety of the valuable and one-of-a-kind environment here in the Santa Monica Bay, and to steer away from Non-Renewable Resource Extraction as pointed out as a mandatory path for the entire world-community by the most recent IPCC reports.

From: Julie Hamill Koch [mailto:juliehkoch@gmail.com]
Sent: Wednesday, April 02, 2014 10:26 AM
To: Oil Project
Subject: Comments for EIR

I submit the following comments for the DEIR regarding the oil drilling project in Hermosa Beach:

Regarding Section 4.3 (Biological Resources), I did not see any evaluation of how the drilling and oil recovery beneath the sea floor will affect the sonar of sensitive marine mammals like dolphins and whales. This project may constitute harassment of marine mammals due to the effects it will have on their hearing, and that this potential problem should be evaluated.

The MMPA defines "harassment" as: any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment]. HAMJ-1

The proposed project would introduce elevated levels of sound into the marine environment and have the potential to adversely impact marine mammals. The potential effects of sound from the proposed activities may include one or more of the following: tolerance; masking of natural sounds; behavioral disturbance; non-auditory physical effects; and temporary or permanent hearing impairment.

If mammals remain in an area because it is important for feeding, breeding, or some other biologically important purpose even though there is chronic exposure to sound, it is possible that there could be sound-induced physiological stress; this might in turn have negative effects on the well-being or reproduction of the animals involved.

Numerous studies have shown that underwater sounds from industrial activities are often readily detectable by marine mammals in the water at distances of many kilometers.

Temporary or permanent hearing impairment is a possibility when marine mammals are exposed to very strong sounds. Non-auditory physiological effects might also occur in marine mammals exposed to strong underwater sound. Possible types of non-auditory physiological effects or injuries that may occur in mammals close to a strong sound source include stress, neurological effects, bubble formation, and other types of organ or tissue damage. It is possible that some marine mammal species may be especially susceptible to injury and/or stranding when exposed to strong pulsed sounds, particularly at higher frequencies.

TTS—TTS, reversible hearing loss caused by fatigue of hair cells and supporting structures in the inner ear, is the mildest form of hearing impairment that can occur during exposure to a strong sound (Kryter, 1985). While experiencing TTS, the hearing threshold rises and a sound must be stronger in order to be heard. TTS can last from minutes or hours to (in cases of strong TTS) days. For sound exposures at or somewhat above the TTS threshold, hearing sensitivity in both terrestrial and marine mammals recovers rapidly after exposure to the sound ends.

Marine mammal hearing plays a critical role in communication with conspecifics and in interpretation of environmental cues for purposes such as predator avoidance and prey capture. Depending on the degree (elevation of threshold in dB), duration (i.e., recovery time), and frequency range of TTS and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious.

In addition to the potential problems to marine mammals' sensitive hearing, I am also concerned about effects from potential sonar blasts or plumes that may result from directional drilling, an example of which is discussed in this article: http://www.dailymail.co.uk/news/article-2130015/Deaths-3-000-dolphins-blamed-sonar-blasts-oil-firms-exploring-sea-bed.html. These potential issues should be evaluated in the final EIR.

Thank you for your consideration.

Best Regards,

Julie A. Hamill, Esq.

Hermosa Beach Resident

=

Terri Dinubilo

From: Breanna Harris <breanna.harris16@yahoo.com>
Sent: Monday, March 17, 2014 9:46 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

p3504 West 185th street
Torrance, CA 90504
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I am coming to you today regarding the topic of the oil drilling in the city of Hermosa, and informing you of the abundance of reasons why I and the majority of the community are opposed to the procedure. HARB-1 Yes, the drilling project will bring in a plentiful amount of money to the city, but how much money exactly is being invested into it? HARB-2 I will now list a small portion of the many obstructions the drilling will cause: surface mining and processing require extensive land use, there are potential environmental impacts, and the safety and health of the citizens would be at risk. HARB-3

To my understanding if we deny the oil drilling to occur the city must pay 17.5 million dollars to the MacPherson Oil Company because of the lawsuit they have for a prior breaching of a contract in 1998, and if we agree to the drilling the city must still pay 3 million dollars. So, yes some money would be lost, but according to my research, as of twenty-thirteen, the city of Hermosa is debt free so this would not have much of a financial impact on the community. HARB-4 Also, if the residents had backed out in 1998 why bring the matter up again, if it obviously was not in the well being of the citizens then, what has changed? HARB-5

Mining, processing and waste disposal require land to be withdrawn from traditional uses, and therefore should avoid high density population areas. Oil shale mining reduces ecosystem diversity with habitats residing a variety of plants and animals. Disposal of mining wastes, spent oil shale and combustion ashes needs additional land use, production of a barrel of shale oil can generate up to 1.5 tons of semi-coke, which may occupy up to 25% greater volume than the original shale. The waste material may consist of several pollutants including sulfates, heavy metals, and polycyclic aromatic hydrocarbons, some of which are toxic and carcinogenic. To avoid contamination of the groundwater, the solid waste from the thermal treatment process is disposed in a landfill. As semi-coke consists of, in addition to minerals, up to 10% organics that may pose hazard to the environment owing to leaching of toxic compounds. HARB-6

E&B natural resources has spilled almost 16,000 gallons of toxic fluid over the past 6 years in California. E&B averages one reported spill every 4 months.. This goes to show that no matter the precautions taken, their are always the unavoidable risks. HARB-7 The mining can also affect the water management, mining influences the water runoff pattern of the area affected. In some cases it requires the lowering of groundwater levels below the level of the oil shale layer, which may have harmful effects on the surrounding land and forest. One environmental issue is to prevent noxious materials leaching from spent shale into the water supply. The oil shale processing is accompanied by the formation of process waters and waste waters containing tar and several other products, heavily separable and toxic to the environment. HARB-8

I believe that you want only the best for the citizens you represent, and the best does not include air pollution, or any other safety and health risks, which is what you would be objectifying them to if you proceed with the oil drilling. Main air pollution is caused by oil shale-fired power plants, which provide the gaseous products like nitrogen oxides, sulfur dioxide and hydrogen chloride, and the airborne matter. In addition, the combustion and thermal processes generate waste material, which must be disposed of, and harmful atmospheric emissions, including carbon dioxide, a major greenhouse gas. HARB-9

If you are still considering being pro-drilling then you clearly do not have the citizens best interests at heart. Hermosa is not interested in making a profit, what they most want is to enjoy the safe and healthy environment that they currently live in, the oil drilling is unnecessary and unwanted. HARB-10

Yours sincerely,

Breanna Harris

Terri Dinubilo

From: Delaney Hawkes <delaneyhawkes16@gmail.com>
Sent: Tuesday, March 18, 2014 7:16 AM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Hermosa Beach Drilling

539 Loma Drive
Hermosa Beach, CA 90254
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hello my name is Delaney Hawkes and I am a resident of Hermosa Beach. I am contacting you regarding the contradiction of oil drilling in my community. I am a Sophomore at Mira Costa High School and I am currently enrolled in Ms. Nielson's chemistry class. Lately we have been discussing the effects of oil drilling on the environment and to the people exposed to it. I have done extensive research on the Hermosa Beach Oil and I strongly disagree with the idea of drilling in my town, where my family lives and where I hope to start a family of my own. HAWD-1

I am very fond of the town I live in and am particularly fond of where my house is located. I live on 6th Street and Loma, only one street away from where "E&B Natural Resources" proposes the installation of new oil and gas pipelines. Not only will the company be drilling through the ground for 12 months straight causing a ruckus, the construction of the oil and gas pipelines will take approximately 14 months. That is 14 months of loud and obnoxious noise. I will not be as severely affected by the construction as my dad, Tom Hawkes, will be. My dad works at home and he works hard to keep us in this beautiful town of Hermosa Beach. My father struggles day by day to keep us here because he knows how much his four children love to live here. Allowing Oiling in Hermosa Beach with reduce the cities visitors and residents exponentially due to the environmental damage. HAWD-2 HAWD-3

There are many risks that come with the drilling oil in a highly populated community. There is always the risk of an oil spill. When the oil has spilled it will contaminate the water and the air. Oil is poisonous for the sea life to be living in. If an oil spill does occur the sea life in the South Bay will diminish significantly. Most tourist visit Hermosa Beach and the South Bay due to the beautiful beaches and nice weather. The income that tourist bring in will diminish as the tourist diminish. Oil spills not only damage the sea life but it damages the air in which it is exposed to. By allowing this drilling to happen you are exposing the citizens of your town to the possibility of air contamination. The unsafe possibilities should be enough for you and your council members to outlaw the proposal of Oil drilling in the beautiful city of Hermosa Beach. HAWD-4

Not only is the environment affected chemically, it is also affected physically. Seismologists and other scientist have researched and come to the conclusion that oil drilling is a cause of earthquakes. This exact scenario happened in Oklahoma in November of 2012. Oklahoma was devastated by a 5.7 earthquake originated in the Wilzetta fault, which had been previously known to be inactive. Hermosa Beach as it is, is already prone to earthquakes due to the San Andreas fault, which is highly active. If this study is true imagine the damage it could do to our city considering we have an active fault unlike Oklahoma. The dangers brought HAWD-5

upon us due to this project are devastating to Hermosa beach and the neighboring communities. Oil drilling is not worth risking citizens lives.

Some may argue that the money to be made is worth the risk. I strongly disagree with that opinion. Hermosa Beach will be making money fromE&B Natural Resources but will be losing money from tourists and residents. Visiting Hermosa Beach is a joy for most. Some say that Hermosa is the ideal place to live, impressive schools, great weather, and beautiful beaches. Due to its beauty living in Hermosa comes with a price. Houses in walking distance of the beach sell for well over $1.5 million and cost is only rising. Depending on how big the oil spill is, it could take decades for the sea life to return to its normal state. If the beach was unsafe to swim in the community would have to close down the beach for safety reasons, pushing away tourists and incoming residents. Therefore, the money that tourist bring in will decrease. Not only will people not visit but residents may move away, decreasing your residential income substantially. The once known beautiful town of Hermosa Beach will be known as the town with the disastrous oil spill. HAWD-6

My research has allowed me to come to the conclusion that oil drilling in Hermosa Beach is risking more than it is giving to the community. The constant noise and disruption, the risks of oil spill, and possible increase in earthquakes will all lead to the downfall of this beautiful city of Hermosa Beach. Money is vital in the survival of a thriving community. If an oil spill does occur, the money that "E&B" has given the community will be spent to repair the ocean's ecosystem and the towns destruction. Therefore, there will no longer be a profit and you will lose money because the citizens will move away to get out of the contaminated town. All I ask is that you don't allow oil drilling in Hermosa Beach so we can keep the town as beautiful and successful as it is today. Thank you for your time and a hope you can put my thoughts into consideration.

Yours sincerely,
Delaney Hawkes

ı erri Dinubilo

From: Hayley Hendrickson <haylou98@gmail.com>
Sent: Monday, March 17, 2014 8:06 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

1717 Voorhees Ave.
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Hayley Hendrickson and I am a sophomore at Mira Costa High School. There are many different opinions out there about the Hermosa Beach oil, but I believe that oil drilling in this area would cause more harm than good. There are three main reasons why Hermosa Beach drilling would be harmful to this beautiful town. One is pollution, two is population, and three is the damage to the oceanic environment. HENH-1

Pollution is already a big problem in today's society. Beijing experienced 2,589 deaths and a loss of US $328 million in 2012 because of PM 2.5 pollution. Now, with oil drilling, Hermosa Beach may not experience amounts of air pollution that tragic, but there would be a significant rise in air pollution. The fact is, air pollution is very dangerous to human health, and during all stages of development in the drilling, it will be spewing dangerous pollutants into the air. This can cause chronic bronchitis, asthma, and lung cancer. HENH-2

Over the years Hermosa Beach has maintained a very impressive aesthetic look. It has also become somewhat of a tourist attraction, with people coming in from cold places during the winter. If Hermosa Beach agrees to drilling for oil, not only will the tourists become less frequent, the population will decline as well. Which to put it simply, the city will lose money. Property values will decrease and the city will become less attractive to prospective homeowners. Also people currently living in the area will most likely move to a different location because of the constant light and noise. HENH-3

Oil drilling can also have a negative effect on the environment. It can destroy habitats and disrupt animal migrations. Also, the seismic waves that are used to locate the oil can harm sea mammals and disorient whales. When drilling for oil, there is always the risk of oil spills. If an oil spill were to occur in Hermosa Beach, the aftermath would be disastrous. Not only would it be aesthetically displeasing to look at, but it would be harmful to the wildlife as well. HENH-4

However in Hermosa Beach there are some people that support the oil drilling. More jobs are provided and more energy can be obtained. However there will be harm done than good. The city will lose money due to homeowners moving away, and property prices will go down. The environment will be severely affected and there will be a rapid boost in air pollution. It seems that more money will be lost if we agree to oil drilling than if we don't agree to it, in the end. HENH-5

Even though I can see both sides of the argument, ultimately, oil drilling will have terrible effects on us for many years to come. The effects of oil drilling are very permanent. Even after all the oil has been drilled the damage will have already been done. After committing to this there is no way to undo it, and the disturbances of the marine environment cannot be fixed. So I urge you, the city of Hermosa Beach to please, not let offshore drilling alter this beautiful area. HENH-6

Yours sincerely,

Hayley Hendrickon

3524 Maple Ave.
Manhattan Beach, CA 90266
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary, City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary, and City Manager Tim Bakaly

My name is Josh Hoffman and I am a student of Mira Costa High School and a part of the Model United Nations program. In this class we study politics and global issues, and I read about the issue with the oil drilling and took an interest in it. Much like Model UN, this is a problem in which one must balance the pros and cons to determine what the best solution for the problem is. Taking into account the arguments made by both sides of the issue, and I would have to agree with the side that would allow the drilling to occur in Hermosa. HOFJ-1

Some of the members in the party against the oil drilling created a list of some of the atrocious things that the oil drilling could bring to Hermosa, but those things could be easily countered. One of the poor things that the people against the oil drilling stated is that it could bring an oil spill to Hermosa. The drilling company states that if a spill were to occur, it would be disastrous to the area's biology, but the drilling company also stated that the chances a spill or well blowout are very, very unlikely. HOFJ-2 One of the other big concerns of the oil drilling is that the mono-nitrogen oxides will be harmful to the local people that live in the south bay. Although, the amount of vehicles and the products being released by the vehicles are much more harmful than the mono-nitrogen oxides that could possibly be produced by the oil drilling. HOFJ-3

The oil drilling could bring many of benefits to the people of Hermosa as well. One of the benefits is the oil drilling could bring in tens of millions of dollars in revenue in the next few decades. They are estimating a revenue of about one hundred forty-seven million dollars to two hundred ninety-nine million dollars to be made by the Hermosa Beach government over the next three decades. This money can fund many sorts of projects, such as improving the school system/ providing a better education for the children of Hermosa, building more community centers or buildings that could help the citizens who are involved in the well-being of the city of Hermosa as a whole, or could be used to improve the Hermosa Beach public safety departments such as the fire department or police department. HOFJ-4

The Hermosa Beach drilling project can greatly improve the city of Hermosa through the money it can generate. Through the drilling project, the city of Hermosa can fund many different projects that can substantially improve the lives of many who are living there. The education system could be improved as well as the public safety departments protecting the people. As stated before, the side effects brought on by the oil drilling are either very very unlikely, or they are just not as bad as some of the other factors that are currently existent. For these reasons, I believe that the drilling in Hermosa should occur because of the benefits brought on by it. HOFJ-5

Terri Dinubilo

From: Cole Keefer <ckeefer79@gmail.com>
Sent: Sunday, March 16, 2014 4:46 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Hermosa Beach Drilling

1847 6th Street
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

One of the most prominent issues in our community today is the Hermosa Beach Oil Drilling. Many citizens are divided on this issues and organizations have been set up on both sides of the spectrum in order to promote what they believe and try to convert other citizens to the cause. I am writing to you today in order to share my opinion and give you reasons as to why I believe what I do. I believe that if we allow drilling in our community it could damage many aspects of our society and the cons outweigh the pros at almost every turn. KEEC-1

I mostly oppose the drilling of oil within the South Bay because of the danger that it prevents to the environment. All over the world we can see entire ecosystems absolutely devastated by the spill of oil. Oil contaminates nearly everything that it touches and it is impossible to think that our community would be spared from this. One of our most important natural resources is our beaches and natural beauty. If we want to continually attract tourists to the beautiful South Bay than we have to try our absolute hardest to preserve our beautiful beaches. If we wish to preserve our beaches than we have to eliminate any chance of contamination. KEEC-2

Another reason to avoid the approval of oil drilling is that fact that the drilling patterns and routes would lead to an increased amount of seismic activity. An increase in seismic activity could be absolutely detrimental to our community. With an increase of seismic activity it could not only cause damage to many of the buildings and structures within the city of Hermosa Beach, it could also irritate many of the citizens living within the area. Many of these citizens themselves are already against the oil drilling and the fact that it could potentially lead to tremors and earthquakes would just be another reason for them to oppose it. KEEC-3

The company currently seeking the approval of drilling in Hermosa Beach, E&B, has no experience in dealing with a project such as this. If they have never dealt with a project like this then why should we allow them to test their oil production on us? Our community and it's beaches are too important to be tested on by an unprepared oil company. We are dealing with something that could potentially ruin our entire community and do we really want to leave that in the hands of an oil company that has never dealt with something like this. Personally, I feel that the risks are too great to leave them in the hands of an inexperienced and irresponsible oil company. KEEC-4

w the promise of money and payout for all of the oil may seem very tempting, you have to take into account that Hermosa Beach's future as a shining beach town should not be jeopardized by a payout. Hermosa Beach is home to many citizens whose entire lives could be jeopardized by this oil drilling. No price can be put on the potential damage that could be caused by this oil drilling. Hermosa has always been a tourist attraction and we can't let the oil drilling ruin that reputation. KEEC-5

Yours sincerely,

Cole Keefer

Bibliography:

"5 Reasons to Vote Against Oil Drilling in Hermosa Beach!" *Stop Hermosa Beach Oil*. N.p., n.d. Web. 16 Mar. 2014.

Terri Dinubilo

From: kakillman18@verizon.net
Sent: Monday, March 17, 2014 3:58 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Hermosa Beach Drilling

303 South Redondo Ave.
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Kelli Killman and I am a sophomore student at Mira Costa High School. I am in favor of the Hermosa Drilling Project contrary to the many not in favor to the drilling for oil. I am sharing my views as a student advocate for the Hermosa Drilling. My reasons include that it will create more jobs, more money for city, money for the schools, greater supply of oil, and no relying on foreign oil. KILK-1

One of many reasons for supporting the drillings is that it will create more jobs. These jobs may include the engineers, architects, drillers and many more. By creating more jobs it will bring in more money to families. Having this money will create more spending. More spending will boost the economy. Hermosa drilling is needed because it will raise the number of jobs which will greatly impact our city for the greater. KILK-2

The second main reason for why the drilling is a good idea is that it will bring in more revenue not only for the city but for the school districts in the city. The drilling has promised the city $118 million to $270 million over the next 34 years. Around $1.2 million to $2.2 million will be given to the school districts. This is a solution to the city's financial problems and help fund the schools that are in desperate need for money. Hermosa Beach could go bankrupt without this drilling. This huge amount of money offered to the small city can be used to help enormously by using it to rebuild the city. The schools in the district are struggling to keep alive especially with extracurricular activities such as music, sports, and art. These classes can barely stay afloat and drilling can save them. Schools will also have no more budget cuts that cause loss of jobs, resources, libraries, and activities that students cherish. KILK-3

My final reason to supporting the drilling is that it will give the state and other states a greater supply of oil and it will help the nation stop relying on foreign oil. By relying on foreign oil it causes the US to spend great amounts of money on oil from unstable countries rather than spending it on funds at home. There are many dangerous factors to relying on foreign oil like weakening our economy, imbalance between imports and exports, and the money used to buy gas funds Middle East governments. By drilling in hermosa the US government could slowly stop relying on foreign oil which could save us from the dangers of foreign oil. By having access to this great supply of oil in the US we will raise our rate of export and strengthen the economy. KILK-4

Hundreds of people are against the drilling for reasons like that it will decrease tourism, cause a threat to marine ecosystem, oil spills, and that it will release dangerous hydrogen sulfide gas. Drilling could be a potential disaster to the marine ecosystem if there was an oil spill. However oil drillers are looking for new ways to build KILK-5

ships to limit the potential case of an oil spill like making their ships out of steel. This project could decrease tourism which brings in a lot of necessary income for the city but with the drilling there wouldn't be a need for tourism since the project is bringing in a lot of money. However the release of hydrogen sulfide gas caused by drilling can be fatal, smelly, and flammable. To limit these workers should have proper safety equipment, mandatory gas test, and to chemically treat drilling fluid to not have corrosion failures. Also it should be in a confined space and have adequate ventilation.

Hermosa drilling can be a great things for many reasons for example it will create more jobs, more money for city, money for the schools, greater supply of oil, and no relying on foreign oil. These reasons greatly outnumber the negative effects of the drilling. I feel Hermosa Drilling is the answer to make Hermosa Beach a better place. Thank you for taking the time to read and consider this letter. See KILK-1

Yours sincerely,

Kelli Killman

1324 12th Street
Manhattan Beach, CA 90266
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Everett Kim and I am a sophomore attending Mira Costa High School in Manhattan Beach. My chemistry teacher has brought to our classes attention the Hermosa Drilling Project and the controversy that comes with this subject. There are many people who oppose this project and many that support it; But, I believe that the potential threats that would come with the execution of this project are far greater than the benefits and so I am on the side of those that oppose this project. KIME-1

On the 28th of January in 1969, high-pressure gases of over 1,000 psi caused a blowout in a well less than 6 miles off the coast of Santa Barbara. The spill of an estimated 210,000 gallons per day lasted around ten days tapering off to a 4,000 gallons per day lasting for a couple months. In the end around 4.2 million gallons of oil was spilled into the waters off the coast of the south bay. This resulted in at least 3,600 birds died and hundreds of sea mammals such as sea lions and elephant seals were found covered in slick black oil across the beaches of the south bay. This is what could happen by following through with the Hermosa Drilling Project. This project could kill and damage the marine life and ruin the beauty of our beaches. The potential amount of damage that this project could cause far outweighs the benefits and is one big reason I am opposed to this project. KIME-2

Being a council member, it is your job to what is in the best interest of the people of your city. Many people of Hermosa have spoken up against this project. One resident of Hermosa Beach tweeted, "Just say 'Hell NO!' To drilling for oil in Hermosa Beach". This is just one example of many that are outraged by this drilling project. Since you as council members are supposed to be a voice of the people, the decision on whether to follow through with this project should be an easy one. In this man's tweet, he included a URL to a website called: stophermosabeachoil.com that listed many reasons why not to vote for the drilling. This is just another example of the city KIME-3

reacting to this project. I suggest looking into the media and what people are saying about this topic to help get a better perspective on this issue.

In following through this drilling project, there are not only risks, but there are health hazards. A big concern is the air pollution that will come with the construction of the drilling site and "Nearly 50 percent of the city's residents live (and breathe) within 0.5 miles of the proposed drilling site" (stophermosabeachoil.com). This is a big problem for many obvious reasons. It not only harms the people of your city, but also harms the environment. These health hazards are yet another reason not to proceed with the Hermosa Drilling Project. KIME-4

People in favor of the drilling project project might argue that if they do not take this project then they will have to pay the $3.5 million that was a part of the lawsuit settlement with Macpherson Oil Co. in 2012. People argue that if the city takes part in the drilling project then with the tremendous profit gained from the project, they can pay the settlement. This is just and excuse. The city of Hermosa Beach is absolutely debt free. The city of Hermosa Beach also has around $5.1 million set aside for the potential drilling project so its not like the city would have to suffer and pay more if they do not follow through with the drilling project. This is just people trying to find a reason to take the drilling project. KIME-5

As a resident of the South Bay, I believe that the Hermosa Drilling project is not worth it and too risky. With the numerous health and environmental hazards, the cons far outweigh the pros. The South Bay is home to some of the best beaches in the world and we should not risk losing that. Thank you for your time and I hope you consider what I have said in the future involving the Hermosa Beach Drilling Project Hermosa means beautiful, so let's keep it that way. KIME-6

Sincerely,

Everett Kim

Terri Dinubilo

From: Valarie Kimble <valariekimble4@gmail.com>
Sent: Sunday, March 16, 2014 7:56 PM
To: City Clerk
Subject: Oil drilling

1620 Monterey Blvd.
Hermosa Beach, CA 90254
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I'm here to explain to you my stance on the oil drilling that will be taking place in Hermosa Beach. I would like to inform you that I am one hundred and fifty percent behind this idea. Many that are against the drilling are those who don't know all of the information about the project. But with my study and the knowledge that I have obtained I believe that this drilling will be more beneficial to the community than anything. I am willing to go great lengths to get people to realize the potential that is in store with this drilling. There are three main reasons why I believe that this oil drilling will be the best thing for the city of Hermosa Beach.

A good example of what is to come to this town is the example of Long Beach. Long Beach has had oil drilling installed into their community about fifteen years ago. Throughout those fifteen years there has not been a single problem with the drilling. The community is receiving a much larger income due to the oil drilling and has had made many upgrades to the community because of it. With all of the information provided by the city of Long Beach they have had a very positive connotation about the drilling even though at the proposing for the drilling the citizens were very skeptical about the whole thing. This sounds a lot like what the situation over here in Hermosa the citizens will always be skeptical but then once the drilling is put into effect there will be no doubt that the drilling was a good idea. KIMC-1

What many people don't realize about the drilling is that it is something called diagonal drilling. What this means is that there are no structures out on the water which is a very well kept up argument. A drill will go in the ground and below the ground beneath the water, even if the pipe breaks (which is very unlikely) there are separate precautions like extra piping around the already strong original pipe. No person will be able to see the pipe or even the building as a matter of fact. The building will be mostly under the ground so no one will even be able to notice where the actual building is. There will be no noise due to the precautions of having a sound proof facility and the company even took the measure as to place large trees around the almost invisible building to enhance the joy of driving by the building.

The final reason that I support the drilling is due to the amount of money that it will produce for the city of Hermosa. There is an estimate of about ten million that can be predicted by the company which believes that or that they will give the city up to twenty percent of the income from the drilling which could be up to a couple million dollars a year which would make a huge impact on the community. With all of the houses around the plant they are worried about the effect on the price of their property but the oil company has balance the difference with all of the houses around the plant. Overall there is no real reason not to have these oil plant put into place.

Someone opposed to the drilling could say something like "What about the pollution that will come out of the plant". That is a good reason to be worried about but unfortunately what I would say to them is… you are wrong. The only pollution that will come out of the plant if you can call it pollution is steam. There is no way that anyone could come up to a knowledgeable person and say that steam is bad for the environment.

In conclusion there is no real evidence that suggest a negative outcome to this project. The city of Hermosa will get large amounts of money and the people around the plant will be happy. The only reason that I can think to have someone say no to this project is either if they are not knowledgeable about the oil drilling or if they have a bad connotation about oil before they were introduced to the drilling. I fully support the oil drilling and through this letter I hope to

ave you believe the same.

Sincerely,

Carter Kimble

From: Ed Almanza
Sent: Wednesday, March 12, 2014 8:47 AM
To: Captain Zing
Subject: RE: HB City oil project conversaton

Kirk,

Thanks for your note. There were many questions from the public that were responded to by the City's consultants at the public presentations on the 24th and 26th. You would have had a good opportunity to present yours and have them answered. Below are some responses that might help out. My sense is that you have not yet delved into the Draft Environmental Impact Report (EIR). If you don't have a copy you can find it at the City's website, or feel free to come to the Community Development Department at City Hall, and ask for a CD or hard copy. There are also copies of the EIR available for review at the City Library and at the Planning Department counter.

The principal role of the Environmental Impact Report is to disclose impacts of the project to the public. It's very likely that it answers most of your questions.

Ed

From: Captain Zing <captainzing@hotmail.com>
Sent: Tuesday, March 11, 2014 1:21 PM
To: Ed Almanza
Subject: RE: HB City oil project conversaton

Ed,

Sorry I missed you at the meeting. I was looking for an open discussion and it was clear that meeting wasn't set up for that.

Below are some issues that have been presented to me. I'd like to know if you address them in your reports (I've looked but they don't seem to be directly discussed but I could've missed them.) or please address them now for me in a response.

Thank you.

1. That Exxon is planning to drill 34 wells covering the entire area of use which significantly increases all of the negatives associated with this project. More risk, more noise, more pollution, greater chance of error than the "well" (singular) everyone was led to believe this project was about originally. KIRK-1

The project's proponent is not Exxon, but E&B Natural Resources. Multiple wells have been proposed at this site since at least the early 1990's. For a description of risks associated with proposed wells, see the Draft EIR's section on Safety, Risk of Upset & Hazards (section 4.8). See the EIR's other corresponding sections on air quality and water quality for discussions of pollution impacts. For a discussion on the relationship of the number of wells to impacts, see the Draft EIR at page 5-17 and the extensive discussion beginning on Page 6-15.

2. The contract permits Exxon to use public lands anyway they want during construction which could take up to five years. So could use public parks (even school parking and fields) as parking for trucks, storage, and as construction sites during that time. KIRK-2

The City has no contract with Exxon. The project (if approved) would be governed by conditions of the existing (1993) Conditional Use Permit, the lease held by E&B for use of the property, and the Development Agreement that would serve as the principal contract between the City and applicant. The Development Agreement would restrict the project to those uses identified in the project as it is described in the EIR, along with mitigation measures prescribed by the EIR (as conditions of approval). The project does not propose use of public park lands or schools.

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3. The 40-80 foot drilling tower will engulf the city during that time (3 to 5 years). Besides being an eye sore this towers aren't completely safe as the one that just collapsed in Huntington Beach proves. KIRK-3

The Draft EIR identifies the height of the proposed drilling rig and work-over rig (84 and 110 feet, respectively) in the Project Description section. The visual effects of these rigs is described in the Aesthetics section of the EIR (Section 4.1).

4. It will be impossible to control the noise, pollution, and vibrations during construction. There is no way to deal with a that. And the vibrations lone could have major affect on the quality of life for the residents as well as potentially cause a shifting of the earth under the homes/building in most of Hermosa. And with 34 wells working 24/7 how will those same issues be dealt with after the wells are in place? There has to be some moving parts at all times. How is that going to be dealt with? KIRK-4

The Draft EIR presents several measures for reducing impacts related to noise, air and water pollution and vibrations. See the respective sections of the text.

5. This is the most important detail I haven't seen or heard discussed. Where ever there is coal or oil there is also natural gas. They go together and It is impossible to control natural gas. It is easy for drilling friction or even friction for normal pumping operations to ignite that case creating a massive explosion that would set the oil on fire. And when the gas and oil is compressed under billions of tons of pressure under the ocean that explosion is magnified by 100x or more. KIRK-5

Potential hazards and release scenarios related to natural gas and the potential for explosions (and other hazards) are discussed in detail in Section 4.8 of the Draft EIR.

The BP explosion in the gulf took out most of the offshore oil rig which was 400 feet by 250 feet (almost two football fields). An explosion of that size in Hermosa Beach would most certainly cause some form of shift in the earth surface destroying home's foundations within a half mile area which wouldn't really matter because flaming oil would also be dispersed in an equal area. The toxins from the resulting fire (which would be extremely difficult to extinguish) could cover all of LA certainly all of the southbay. And of course all oil leaking into the ocean and covering all of our beaches. Where is that in your reports? KIRK-6

Please see section 4.8 for a discussion of potential scenarios that might result from the proposed project and their probability of occurrence. The EIR does not provide a history or review of the BP accident.

These are things I've been told but haven't heard them discussed or I can't really find them in the reports. Please give me your take on these items.

All the best,

Kirk

1345 17th Street
Manhattan Beach, CA 90266
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hello, my name is Tyler Knudson and I am a sophomore at Mira Costa High School. It has come to my attention that drilling for oil in Hermosa Beach is a major conflict right now. Even though I live in Manhattan Beach, I have strong opinions for the search for oil in Hermosa. This is due to the fact that the two towns are so close to each other that they're practically just the same. I would like to argue my opinion on this matter.

There are many reasons against drilling but the most important is the amount risks that follow. First, there is always a risk of an oil spill. Living near the beach, the ocean is a part of all the residents lives in Manhattan and Hermosa Beach. If an oil spill were to happen, it would ruin our beaches, kill our ecosystems, destroy our sand, and prohibit residents from going in the ocean. The small possibility of this happening is too dangerous to risk in our beautiful town. KNUT-1 Secondly, toxins are another important risk that could damage our community. Polluted water and air would affect the health of the people. Knowing that everyone in Hermosa would live as close as half a mile away from an oil well, storage tank, or a drilling rig, toxins and poisons would be a major health problem. KNUT-2

Another reason is the amount of problems the town would face during the process. First, traffic would go up tremendously due to all the heavy duty trucks entering and exiting the city. Traffic can already be bad enough with the buses traveling from place to place and the rush hour traffic. KNUT-3 The last thing we need is construction trucks polluting our air even more and causing more traffic. KNUT-4 Also, the construction would take 30-35 years! This is a long time of loud banging and construction chaos that goes with the building process of the drills and pipes. KNUT-5 In addition, the buildings would take up a lot of space and would not add to the beauty of our town.

Lastly, we don't need to drill for oil. The big picture at the end of this 35 year process would be KNUT-6

the 519 million dollars that it would bring to Hermosa. Our towns are wealthy enough as they are. We are blessed with incredible expensive technology at our schools already and the 519 million is unnecessary. Yes, that much money would be nice to have but it is definitely not worth the risks and effects that would come with it. Plus, the future contains hydrogen powered cars. If these cars are successfully created, the need for oil will be removed. Hermosa is perfect the way it is; the clear blue waves, the boardwalk, and all the happy people. Why should we mess with the peace of the community? KNUT-7

Now you are probably thinking about how the drilling will all pay off in the long run, there will be no sound pollution, everything will be done underwater meaning there's no risk for an oil spill, and we need the money. After 30-35 years, most of us young residents will be moved out and living elsewhere. When we return to our hometown, we would like to see the gorgeous beaches that we were so lucky to grow up on. We would not like to return to smoggy air and a town that is struggling to remove oil from the oceans. Even though the oil pipes will be beneath the ocean's surface, there is always a risk of them being damaged. Once one is broken, how do we fix something quickly that is so far down in the ground? The so called "sound proof walls" would cancel out most noise but it would not eliminate the noise from trucks or other related construction projects. KNUT-8

In conclusion, the drilling for oil should not partake. The outcome will not be worth the process and pollution. Also there are too many risks that could ruin our community. We live in the best place on earth and if one tiny error is made during the process, our ocean and ecosystem could be destroyed. Keep Hermosa hermosa.

Thank you for your time and considering my letter.

Yours sincerely,

Tyler Knudson

April 14, 2014

VIA E-Mail

City of Hermosa Beach
Community Development Department
1315 Valley Drive
Hermosa Beach, CA 90254

Attn. Ken Robertson:

Please accept the following comments relevant to inadequacies of the existing DEIR with suggestions for further legitimate investigation to improve the assessment.

I am an accomplished Chemical Engineer with 30 years working in and around major processing equipment. Generally, I have always been supportive of responsible development of natural resources governed by prudent laws and regulations. However, the magnitude and complexity of the proposed project is inconsistent and incompatible with the proximity to and density of the nearby residential community. KRAJ-1

Executive Summary:

Specific areas in the DEIR requiring additional work are listed below:

- E&B's previously published event risk assessment lacks clarity and specificity. It does not allow a qualified assessment of the defined release scenarios and adequacy of proposed mitigation measures. KRAJ-2
  - Even in the morass of discussion, E&B's own review suggests nearby houses could have their windows blown in by an explosion. The notion of my daughter waking up enshrouded in shards of glass is an intolerable predictable plausibility.
- The DEIR discussion of event risk is needlessly verbose and meandering again without sufficient specificity to assess defined risk scenarios and mitigations. KRAJ-3
- Following the Texas City Tragedy where 15 souls where lost, the oil industry committed to apply a new risk assessment for locating buildings near processing equipment – American Petroleum Institute Recommended Practice 752. KRAJ-4
  - The proposed project should apply the protocol from API 752 to assess the potential risk to nearby buildings and occupants relative to citing process equipment.
- Operating a 150 foot boom crane on site is inconsistent with nearby residences and businesses. KRAJ-5
  - Safe crane protocol dictates that the proposed use of a 150 foot boom crane would require evacuation of all personnel and residences within the boom radius while the crane is on site.
- The DEIR presents two toxic plume maps – mitigated and unmitigated -- but lacks details on specific alterations the lessened the map impact area from one case to the other. KRAJ-6
- There was no direct mention of welding machine emissions during construction which would be an oversight and understate air emissions if omitted. KRAJ-7

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- The DEIR downplays the pressure of the oil production since at mature production there would be little pressure at the well head. However, upon initial production the pressure could be as high as 800 psig. What would be the projected overspray plume from a blow-out at 800 psig? How would the over-spray be mitigated? KRAJ-8
- The DEIR accepts a yearly time limit on use of the flare. Does that make sense relative to how long it takes in the start-up to establish steady operation? A yearly time limit could induce an unintended consequence to create a reluctance to shut down the unit in unusual situations. KRAJ-9
- The staffing seems inadequate at night with only two operators on site. If the outside operator has an issue or goes down, then the inside control operator would be faced with abandoning the control board or providing assistance to the hindered operator. KRAJ-10
- The study appeared to amortize the construction emissions over the life of the project. That is a clever approach, however, such an approach would not be valid for predicted exposure. KRAJ-11
- The DEIR defines three tanks each with the capacity of 2800 BBls which seems to provide grossly inadequate capacity to support 8000 BPD production reinforcing the notion that the site footprint is inadequate to support the proposed project. KRAJ-12
- The tanks are simple designs that increase potential emissions and odors. KRAJ-13
    - If E&B proclaims to be applying the best designs why don't the tanks include internal floating roofs with secondary domes?
- The proposal has inadequate buffer zones between the major equipment and the plant boundary. KRAJ-14
    - The notion of little Johnny and Suzy Surfkid walking to Valley School just 8 Feet from the ground Flare, major equipment, and tankage is absurd.
- There is a lot of discussion on Earthquake potential impact and historical impact. The project should clearly state the exact design criteria for ground acceleration based on the maximum credible earthquake for the nearest largest known fault. KRAJ-15
- The variety of computer generated views yields valuable insight into the potential aesthetic impacts. However, they are incomplete without adding views of the crane and adding all processing equipment. KRAJ-16

I am generally in favor of responsible development of natural resources. However, the limited project footprint and the proximity of residents is inconsistent and incompatible. I would be happy to be contacted for clarification of my detailed concerns. KRAJ-17

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Detailed Review of Recommended Improvements for the DEIR

E&B's and DEIR Health Risk Assessments:

- E&B's previously published event risk assessment lacks clarity and specificity. It does not allow a qualified assessment of the defined release scenarios and adequacy of proposed mitigation measures. There is discussion of engineering options to limit potential release scenarios but not sufficiently detailed to evaluate. It appears that the design relies on valve isolation to limit volumes released during potential release scenarios.
    - If the proposal relies on limiting release by valve isolation:
        - Do the valves operate independently of operator action?
        - Are the valves activated by triply redundant measured elements?
        - Are the isolation valves bubble-tight?
        - If the plant is segmented by isolation valves each section would become a pressure vessel. How would each section be protected from over-pressure?

KRAJ-18

- The leak studies were based on an assumed hole size of one inch. About 15 years ago the accepted hole size assumption was increased to 2 inches for acutely hazardous materials and explosion risk release studies in California. E&B and the DEIR must re-run their evaluations with a 2 inch assumed leak size.

KRAJ-19

- The E&B evaluation lists a variety of failure mechanisms that could be experienced by the plant. One of the potential's was a BLEVE (Boiling Liquid Expanding Vapor Explosion).
    - What vessel or volume is subject to BLEVE?
    - What mitigations are assumed to lessen or manage a potential BLEVE?
    - It is not rational to state that a BLEVE is possible and then conclude there would be no significant impact?

KRAJ-20

- Even in the morass of discussion, E&B's own review suggests nearby houses could have their windows blown in by an explosion.
    - The notion of my daughter waking up enshrouded in shards of glass is an intolerable predictable plausibility.

KRAJ-21

American Petroleum Institute Recommended Practice – 752

Following the BP Texas City disaster, the Oil Industry committed to abide by the recommendations contained in RP-752. The disaster in Texas City claimed 15 souls. The failure and loss of life exceeded anything that would be predicted from the industry's typical risk evaluation like what E&B applied above. The recommended practice defined a different approach to calculate potential explosive energy released from plausible events rather than assuming leak rates and failure projections. The protocol defines that the pressure-wave prediction be defined by detonating the potential volume of relevant material enclosed by a vapor cloud constrained by the volume of the process equipment envelop.

KRAJ-22

In this case, aesthetic mitigation and sound abatement mandate that a 35 foot wall surround the 1.4 acre site. Therefore, API-752 would define a predicted pressure wave generated by the detonation of a LPG 1.524 MMCF cloud. The cloud should be projected for LPG, NGL's or the propane refrigerant. The new protocol was devised to construct and locate on-site buildings but it easily transfers to the application of

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near-by residential structures, as well. The residential community forces the sound wall and the view barrier. Unfortunately, the walls also create and enclosed space that can accumulate escaped vapors. The additional risk from the enclosed space simply illustrates that the project is inconsistent and incompatible with the proximity to and density of the nearby residential community.

Safe Crane Operation:

Traditionally, safe crane protocol would cordon off and area under the boom while deployed to protect people and equipment below. In 2008, 4 folks were killed and 7 were injured by a crane accident while the crane was being constructed. Subsequently, safety protocol limited exposure for crane operation even beyond simply when the boom is deployed. There are homes and businesses that are within the 150 foot boom swing range. Only evacuations could protect the businesses and residences form impact from crane incidents. Crane operation is simply an additional illustration that the proposed project is inconsistent and incompatible with the proximity to and density of the nearby residential community. KRAJ-23

Cancer Risk Projections:

Two maps are presented in the DEIR, Figure 4.2-7 Unmitigated and 4.2-8 Mitigated. There was no obvious description of exact mitigation steps that move the projections from the larger map to the smaller footprint. The DEIR must clearly describe the steps proposed and the incremental reduction in potential exposure for each step. Additionally, the DEIR should identify exactly where the Maximum Exposed Individual is located. KRAJ-24

The exposures calculated by this protocol is lowered by the distribution of wind direction and atmospheric stability. As individuals impacted by this project it would be helpful to see what the maximum exposure is for the worst wind speed, direction, and atmospheric stability. Knowing our potential largest exposure would allow us to make decisions about staying in our location or moving (even temporarily) to manage our individual exposure.

Emissions' Completeness:

There was no direct mention of welding machine emissions during construction which would be an oversight and understate air emissions if omitted. The emissions from welding machines should be added to the air toxics calculations. KRAJ-25

Well Over-pressure:

The DEIR downplays the pressure of the oil production since at mature production there would be little pressure at the well head. However, upon initial production the pressure could be as high as 800 psig.

- What would be the projected overspray plume from a blow-out at 800 psig? KRAJ-26
- How would the over-spray be mitigated?
- If the plume detonates what would be the expected duration and magnitude of the fire?
- If it does not detonate, how far would the overspray contaminate the surrounding community?
- What is the proposed clean-up or mitigation for an over-spray event.

Flare Operation: KRAJ-27

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There was little discussion of the size, design and operation of the proposed flare. An elevated Flare is aesthetically less desirable. However, the elevation provides two advantages. The elevation mitigates the potential radiant heat exposure to equipment and people. Also, the elevation effectively disperses potential emissions lessening their impacts on residents. The DEIR should explore the differences from each design and their impacts on the proposed project. KRAJ-27 cont'd

What was the design capacity for the flare and how was it determined? What was the design basis?

- What was the limiting design basis?
- What was the flare load upon power outage?
- What was the design load based on loss of refrigerant circulation?
- Is the Flare designed to burn smokelessly? At what capacity?
- What is the design destruction efficiency for the proposed flare?

KRAJ-28

The DEIR accepts a yearly time limit on use of the flare. Does that make sense relative to how long it takes in the start-up to establish steady operation? A yearly time limit could induce an unintended consequence to create a reluctance to shut down the unit in unusual situations. KRAJ-29

Staffing:

The staffing seems inadequate at night with only two operators on site. If the outside operator has an issue or goes down, then the inside control operator would be faced with the choice to abandon the control board or provide assistance to the hindered operator. The DEIR must add a discussion on staffing levels, emergency response, and failsafe automation of the control system design. KRAJ-30

Tank Design and Capacity

The DEIR defined three tanks each with the capacity of 2800 BBls which seems to provide grossly inadequate capacity to support 8000 BPD production. Common practice would have expected that 8000 BPD production would be supported by three tanks -- two for production and one for maintenance and off-test sparing. The expectation that each capacity would exceed 8000 BBls to allow for water accumulation and safe space above safe oil height. The two production tanks would alternate between production, settling, and pumping. Production would pump to one tank that would then be held for 24 hours to allow water to settle and dewater before pumping to proven production sales. Tanks of only 2800 BBls could not provide adequate residence time to allow dewatering. KRAJ-31

Three tanks of only 2800 BBLs would also provide limited buffering to handle pumping or production upsets. With inadequate buffering capacity, the plant could suffer more frequent production interruptions and re-starts. More restarts directionally increase start-up flaring.

Tank overfills are a major risk for odor incidents and fire risks. The DEIR should add a discussion on the safe controls added to prevent overfills. The small tanks and the rapidity of fill cycling would expose the plant to more frequent overfills than if the tanks were larger. KRAJ-32

The tanks are simple designs that increase potential emissions and odors. KRAJ-33

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- If E&B proclaims to be applying the best designs, why don't the tanks include internal floating roofs with secondary domes? KRAJ-33 cont'd

Low residence time for dewatering, frequent fills, and inadequate buffering to allow sustained production simply reinforces the notion that the site footprint is inadequate to support the proposed project. KRAJ-34

H2S Production and Management:

The discussion around H2S production and concentrations was apparently inconsistent and confusing. Concentrations of 6 PPM and 100 PPM are described as limits but it is not always clear what oils or produced streams are described by each concentration. After reading all of the DEIR, I guess 6 PPM describes the maximum expected concentration in crude oil produced and 100 PPM addresses the maximum expected in the concentrated gas production. Furthermore, the DEIR states that the well would be blocked in if it exceeds these values and the CEQA process would be invalidated. Is that right? Those levels are very low and a 6 PPM crude could easily exceed 100 PPM in gas produced especially if gas make is much less than expected. This project constraint almost seems frivolous when compared to the observed range of H2S content of crude oils produced in nearby Torrance and Redondo Beach fields. KRAJ-35

The project also commits to place 10 ppm H2S monitors in the plant and at the boundary. The sensitivity and placement of the monitors should be located to yield advance warnings of a potential leak or vapor event. 10 PPM at the plant boundary is too high to provide early detect to allow the operators to properly intervene. The boundary monitors should probably have early detect settings of .5 and 1 PPM. Other in-plant monitors should be strategically placed near processing equipment that could potentially source H2S emissions. KRAJ-36

The DEIR should clearly state the singular highest H2S stream that could leak and project concentration iso-pleths for the highest release scenario into community. KRAJ-37

Equipment Spacing and Siting:

The proposed project does not meet recommended spacing for equipment and boundary's. The recommended spacing is based on experience for incident prevention and emergency response. Given the location and proximity to the nearby residential community it makes no sense to lessen the expectations below the recommended spacing. The opposite would be the more rational response increasing spacing and boundary buffer zones.

The proposal has inadequate buffer zones between the major equipment and the plant boundary. KRAJ-38

- The notion of little Johnny and Suzy Surfkid walking to Valley School just 8 Feet from the ground Flare, major equipment, and tankage is absurd.

At a minimum, the project must simply include the obvious response to increase buffer by closing sixth and valley to traffic including sidewalk traffic on valley. Whether, the roads become part of the project enclosure or simple closed roads to public traffic can evaluated later.

Earthquake design: KRAJ-39

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There is a lot of discussion on Earthquake potential impact and historical impact. Empirical evidence for the performance of engineered structures in past earthquakes needs to be reconciled versus earthquake standards applied at the time. The project should clearly state the exact design criteria for ground acceleration based on the maximum credible earthquake for the nearest largest known fault.

Once the maximum credible earthquake is defined, geotechnical engineers can project the maximum expected ground acceleration to be experienced at the site. Structures, foundations, and hold-down bolts for tanks and vessels must be designed to meet the expected acceleration. Tanks should include a bottom re-enforcing ring to combat elephant foot failures experienced in prior events. Earthquakes are unpredictable and therefore scary but sound engineering should produce structures that perform well if they meet current design standards. KRAJ-39 cont'd

Aesthetic Views and Sound Mitigation:

The variety of computer generated views yields valuable insight into the potential aesthetic impacts. However, they are incomplete without adding views of the crane and adding all processing equipment. It is better at this point to be forthright with all the potential view impacts. Leaving each residence to their own extrapolated view impact would probably be worse than the reality. At least two structures are not included in the current computer generated views. The crane will be a large visual impact. The comprehensive view angles should add the crane. Also, the project proposal describes a depropanizer or gas column of 60 feet which would be visible above the solid wall, as well. The 60 foot designation may have been for the process height required. If so, a column skirt and foundation needs be added to the 60 foot height. KRAJ-40

I recognize and favor the beneficial impact of safe, environmentally conscientious, and regulatory compliant development of natural resources including:

- Immense increase in local revenues for the City of Hermosa Beach.
- Decrease the US dependence on foreign oil for our energy needs.
- Create new jobs to construct and operate the facility fueling economic prosperity.
- Add shared oil production rights royalties to individual lease holders' pockets.
- Fuel economic prosperity for the lease owners, investors, and operators.

However, all the economic benefits do not offset the potential; safety risks to the proximate residents and businesses. KRAJ-41

Again, I am generally in favor of responsible development of natural resources. However, the limited project footprint and the proximity of residents is inconsistent and incompatible. I would be happy to be contacted for clarification of my detailed concerns.

Jeff Krag
516 8th Street

A Concerned Energy Engineer and Hermosa Beach Resident

From: MICHAEL V LEAHY [mailto:snmleahy@msn.com]
Sent: Tuesday, April 08, 2014 12:32 PM
To: Oil Project
Subject: Public Review EIR

My assumptions is that E&B Oil is a corporation, meaning that its liability for damages will be limited to the value of the company. Based on that my prior concern regarding the entire duration of the project is the likelihood that a problem, incident, disaster will occur and E&B Oil will not have the financial resources to meet its legal obligations.

By way of example: LEAM-1

1. who will pay for dismantling of the facility in the event E&B Oil abandons the effort at any time during the project?

2. who will pay for clean up of any above ground, below ground or in water contamination if E&B Oil

fails to meet its financial obligations?

3. who will pay for damages arising from the operations (building or drilling rigs collapse, contaminated run off) during the project for accidents, property damage and personal injury other than E&B Oil?

There any number of adverse events (earthquakes, winter storms such as occurred in 1983) that may and are likely to occur during the project, which if not covered by E&B Oil or other financial protections, such as insurance policies, bonds, that would leave the residents and the city at risk. With the limited liability arising from E&B Oil's incorporation, the residents and city are the ultimate insurers of this project. For the project to be acceptable, considering all of the risks and issues contained in the EIR, there

must be financial protections put in place by E&B Oil that protects the residents and city beyond E&B Oil's own resources. The financial benefits to the city do not appear to be sufficient to offset the potential liabilities in the event of E&B Oil's fails to cover the liabilities.

Sincerely,

Michael V. Leahy

260 29th Street

Hermosa Beach, CA, 90254

Terri Dinubilo

From: Andrea Lee <appleandrea54@gmail.com>
Sent: Monday, March 17, 2014 10:45 PM
To: City Clerk; tnielsen@mbusd.org
Subject: Hermosa Beach Oil Drilling

1637 Golden Avenue Hermosa Beach, CA 90254 March 17, 2014 Mayor Michael DiVirgilio Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary, City Manager Tim Bakaly City of Hermosa Beach 1315 Valley Drive Hermosa Beach, California 90254 Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly: I am a sophomore at Mira Costa High School and am writing to argue against the Hermosa Beach Oil Drilling. I have lived in Hermosa for over ten years and do not wish to put the health and safety of the residents in danger. The beach is the major attraction in Hermosa and I think that this proposal will harm the environment of the city and threaten the safety of the citizens. There are the three reasons why I am against the drilling: it's not safe, it's not healthy, and there could potentially be another way to power our cars without having to use only oil. LEEA-1 One major reason why I believe that the drilling should not take place is because it may not be safe for our environment. Pollutants caused by the drilling will greatly increase air pollution and affect the atmosphere. Toxic chemicals could also be released during the oil drilling operations and infect our ocean. This process could also cause potential oil spills or leaks and endanger the lives of wildlife living in the ocean. I believe that most of the residents in the city want to preserve the natural environment of Hermosa as much as they can and protect it from any unfavorable conditions. LEEA-2 Another reason why I think that the oil drilling should not take place is because it can also threaten the health of the residents living in the city. Nearly 50% of Hermosa's residents live within a half of a mile of the proposed drilling site. Dangerous pollutants such as benzene, particulate matter, and hydrogen sulfide can harm the residents' health and may cause respiratory problems. Compared to other California communities, Hermosa has little air pollution; however, this could change due to the oil drilling. Overall, I believe that the oil drilling is an unsafe process for our city and for the health of the residents. LEEA-3 Lastly, I think that oil may not even be necessary to fuel our cars in the future. Cars that run on hydrogen are very eco-friendly and can greatly reduce air pollution. Also, regular cars produce carbon dioxide, which is the main cause of global warming. Converting from internal combustion engines in cars today to non-polluting fuel sources such as hydrogen, can lessen the chances of global warming and improve our environment drastically. One day, we will run out of the amount of oil that is available to us and will ultimately have to turn a different solution. I believe that this will be hydrogen-powered vehicles. Hydrogen is difficult to separate from water, so it will be expensive to buy hydrogen-powered vehicles. Many people may not even be able to afford these types of cars. Hydrogen is also very flammable and can combust if leaked. These facts are true, but for the future of the planet, this is something that must be done. Oil is not an unlimited source and we have to turn to something else to power our vehicles someday. Hydrogen will become cheaper as more and more people use hydrogen-powered cars. Hydrogen is also contained in platinum engines, and the possibility of leaks is very low. Hydrogen-powered cars is the next step to fueling our vehicles in the future and thus, the oil drilling in Hermosa should not take place. LEEA-4 I am arguing against the Hermosa Beach Oil Drilling proposal because it is not safe for the environment, it's not healthy for the residents, and because there is a possibility to power our vehicles in a more efficient, eco-friendly way. Hermosa should be preserved and kept in its natural environment. The oil drilling will only cause more air pollution and possible danger to the city and the residents. I believe that most of the people who live in Hermosa feel the same way. LEEA-5 Yours sincerely, Andrea Lee

Terri Dinubilo

From: Diego Marcucci <marcuccidiego584@gmail.com>
Sent: Monday, March 17, 2014 11:20 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input On Drilling in Hermosa

415 Herondo Street, Apt #305
Hermosa Beach, CA 90254
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Diego Marcucci and I am a Hermosa Beach resident attending Mira Costa High School for my second year and am enrolled in CP Chemistry with Teresa Nielsen as my teacher. I was part of the Hermosa Beach City School District for 5 years in my studies at Hermosa Valley School and have had the pleasure of knowing what the aura of the city is like and the people and education that it has to offer. Regarding the ongoing discussions between our city and MacPherson Oil Co. I feel as if our city should not allow the company to dig through our soil for oil. MARD-1

Our city is known for it's peaceful and beautiful environment day after day. We already have the AES power plant on Herondo Street, and the addition of the drilling hole only six streets away would cause an enormous disturbance for our residents living between those streets. The amount of pollutants coming from a single area will cause the air brought in by the sea to spread these harmful emissions throughout our city and even farther. Although Hermosa Valley School is six streets away, many of the students walk or ride their bike through that area and would have to inhale the pollutants. MARD-2

Another issue with this drilling would we the danger it would impose on the surrounding citizens in the case of an accident. These drillings are set to be done right next to South Park, a popular park for children and even sports practices. This park also has an after school program in which kids from HVS walk to everyday, and having a possible disaster waiting just a block away puts too much risk on the kids. There are houses just down the hill from the expected drilling spot, and as proven from past drilling, accidents can go on for a long time without being controlled. MARD-3

of the biggest issue would be the loss in tourism the city would obtain. We have banned public smoking and our community works hard to keep this environment clean and that is what attracts the tourist. With this drilling making extreme noise and damaging our environment, the city would lose a great amount of money with people that are highly against our drilling in urban towns. Even though we would not plunge our income from tourism, this project would extend for years and slowly year by year the city would start becoming and enclosed town with far less tourism than is normally expected each summer. MARD-4

One thing that MacPherson Oil Co. could bring to us would be a large profit. According to them, this oil could be worth millions of dollars, which is the main reason for the drilling. Our city gets along with a tight budget, but still manages to be the small city it is with an extremely good budget considering the two schools that it has. The revenue from this drilling would help out the city in a good way, maybe even create jobs in our town to help run the drilling. Even this money could help boost tourism, education, and modernization in parts of the city. MARD-5

I still strongly stand to not let the MacPherson Oil Co. drill in our city. You may have heard thousands of arguments for or against this topic, but hear them from the next generation, the generation that will have to deal with the results of this voting. Us teenagers are the one with the biggest voice, but a voice that can't be expressed. This is why my classmates and I write to all of you, to show you what we think after growing up in this town all our lives and not wanting to see it change, or in some opinions wanting this city to be different from what it now is. MARD-6

Yours sincerely,

Diego Marcucci

Terri Dinubilo

From: Valentina Marmol <valen3031@gmail.com>
Sent: Monday, March 17, 2014 7:53 PM
To: City Clerk
Subject: Input on Drilling in Hermosa

1657 Ruhland Ave
Manhattan Beach, CA 90266
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I, Valentina Marmol, am writing this letter in regard of my opinion on the Hermosa oil drilling. First, let me introduce myself because that would be the nice thing to do. As you can see, my name is Valentina Marmol. I am a full time sophomore at Mira Costa High School. I have a passion for singing, painting, playing the piano, and swimming. My question for all you council members is what is your opinion on the drilling? Are you all concerned for what the possible consequences the oil drilling will bring upon? As a Spanish speaker, "Hermosa" means pretty and lovely in Spanish, so why not keep Hermosa hermosa?

Do we want to ruin the city life, ocean life and risk the dangers of some drill that most likely won't be needed in the next two years? Think about all the new, eco-friendly inventions that have been coming out lately. They all do not require the oil we need. Noise, air pollution, explosions or dangerous gases are all possible risks that can affect the lovely city of Hermosa Beach. MARV-1 MARV-2

The drilling can also effect the residents of the city but also the wildlife in the ocean. The spot where the company wants to insert the diagonal drill in is where whales go to get their food supply, krill. This can reduce the amount of krill leading to the extinction of the whales, the largest animals on our beautiful earth! Not to mention that the drilling won't be too far, about 100-150 yards from where the children's play sites are. The drilling can cause bad air which can lead to the young kid's lungs. Kids are already breathing a bad amount of air pollution which is caused by all the junk we have in our environment. MARV-3 MARV-4

Mayor DiVirgilio, I recall that you told the Daily Breeze, "Obviously, the things that will catch the most attention are all the impacts, particularly the ones that aren't able to be mitigated down to a standard threshold. Our goal is to provide a lot of data so the public can have as full a view as possible." If I'm wrong, my opinion is that you have stayed neutral about the whole drilling issues. Can this give me a chance to change your mind? I know your co-partner, Barragan has her opinions on the drilling too. Imagine if the drilling were to happen. Imagine all the protestors waiting outside of your office with posters saying, " This drill will destroy this city!" More and more residents will have to pay more taxes just for the drill. The company can go somewhere secluded to find their oil. Why Hermosa? Not only will the oil drill anger more residents but it will make the city financially unstable. We won't be able to attend the annual Hermosa Fair or Saint Patrick's Parade. MARV-5

Some fellow classmates of mine are up for the drilling. I want to prove them wrong as well. They don't know that the ocean they'll be swimming in will secretly be somewhat toxic. The company makes sure that there won't be any oil spills but it's still going to ruin our ocean. Say if the oil drilling were to happen, I can guarantee they will not be happy with the results. MARV-6

In the summer, my favorite thing to do is go swimming in the ocean and have deep talks with my friends while we are tanning. Will you make sure that will stay the same even though there will be a drill below us? My question is why doesn't the drilling company go somewhere else off our coast? Mayor DiVirgilio, I just want to "Keep Hermosa Hermosa." I don't want other disputes about oil and such and how we should trade. In my opinion, you all should follow how to keep Hermosa Hermosa. The last thing you all need is to be drowning of stress when residents of this lovely city come to complain. Also, you all will have a lot on your hands, not saying you do not, with the environmental and residential life. This can effect the animals in the ocean but also the residents of Hermosa Beach. You tell me how it goes and I'll be waiting back for your letter in the mail. MARV-7

How's that? I hope I can keep in touch and we can Keep Hermosa Hermosa.

Yours truly,
Valentina Marmol

JUSTIN MASSEY | 1441 MANHATTAN AVENUE, HERMOSA BEACH, CA 90254

VIA EMAIL

April 14, 2014

Ken Robertson
Community Development Director
City of Hermosa Beach
oilproject@hermosabch.org

Re: E&B Oil Drilling & Production Project DEIR

Dear Mr. Robertson:

Please accept these comments on the Draft EIR ("DEIR").

The DEIR is unreasonably long, in violation of CEQA Guideline 15006. It needs to be shortened – probably to under 250 pages – so as to be readable by members of the general public. MASJ-1

The DEIR recites on page 2-5 that the City's goal is to give E&B a vested development right if the ballot measure passes. This is not an appropriate goal for the City and it should be removed. MASJ-2

Several items remain to be developed, such as an air monitoring plan, odor minimization plan, and other important project features. (P. 2-66.) Without specifics, the environmental impacts of this project cannot be reasonably determined. The specific nature of these plans and project features must be described in sufficient detail in the EIR to evaluate their effectiveness at mitigating the unavoidable adverse consequences of the project. MASJ-3

The problematic organization and excessive length of the DEIR is particularly evident in the laborious, obfuscatory treatment of the environmental impacts of the proposed project and the cursory report on the environmental impacts of the project alternatives. The environmental impacts of the proposed project occupy roughly 700 pages of the DEIR – an excessive amount that obfuscates the impacts of the proposed project and makes them inaccessible to the public. By contrast, the discussion of environmental impacts of the 5 alternatives occupies only 40 pages of the DEIR. The proposed project and 5 alternatives should be discussed together and given similar analytical treatment. MASJ-4

The proposed project presents significant actual and potential environmental consequences, including from the placement of permanent production facilities MASJ-5

on site (which ensures that the risk of spills and leaks of oil and other hazardous substances will be constant) and the allowance of natural gas flaring for up to 5 hours a day – a significant consequence in terms of aesthetics, noise, and air quality. These and other unavoidable consequences of the project need to be better highlighted and discussed in plain language.

In section 4.8, the DEIR estimates failure rates based on a convoluted amalgam of inputs that ignores the track record of E&B and its principals, who have operated other oil production facilities that have released oil and hazardous substances. That operating record needs to be disclosed and accounted for in the DEIR. MASJ-6

In section 4.8.4.4, there does not seem to be a scenario for an oil leak (as opposed to spill) from the project once it is producing oil. The DEIR needs to be include such a scenario. MASJ-7

In section 6.1.1, the DEIR assumes that the No Action alternative would increase greenhouse gas emissions because the (relatively small amount of) oil produced by this project would likely be replaced by foreign supplies. This is not a credible analysis given the changing nature of energy and fuel generation, and it should be removed. MASJ-8

Sincerely,

/s/

Justin Massey

From: babolmnop@aol.com [mailto:babolmnop@aol.com]
Sent: Friday, April 11, 2014 4:13 PM
To: Oil Project
Subject: spills

Here is a list of oil spills since the year 2000. A spill would ruin Hermosa Beach, Hermosa business and our property values. The traffic presents ridiculous problems for tanker trucks. It is so nice not to be El Segundo or even Redondo with the huge hydroelectric structure ruining the landscape. We are a one square mile perfect little city. Why would we do this to ourselves? Who would take the chance of ruining paradise? Barbara Mathieson, owner, 220 27th st., Hermosa Beach,CA 90254

MATB-1

Spill / Vessel	Location	Dates	Min Tonnes	Max Tonnes	Link(s)
Lake Michigan oil spill	United States, Indiana, Whiting refinery	24 March 2014	2	5	[8][9][10]

Spill / Vessel	Location	Dates	Min Tonnes	Max Tonnes	Link(s)
MV *Miss Susan*/MV *Summer Wind*	United States, Texas, Houston Ship Channel	22 March 2014	546	546	[11][12]
North Dakota pipeline spill	United States, North Dakota, Hiland	21 March 2014	110	110	[13]
North Dakota train collision	United States, North Dakota, Casselton	30 December 2013	1,300	1,300	[14]
Bullenbaai	Curaçao, Bullenbaai, Isla refinery	1 November 2013	unknown	unknown	[15]
North Dakota pipeline spill	United States, North Dakota, Tioga	25 September 2013 – 29 September 2013	2,810	2,810	[16][17]
Rayong oil spill	Thailand, Rayong/Ko Samet, Gulf of Thailand	27 July 2013	43	163	[18][19]
Lac-Mégantic derailment	Canada, Québec, Lac-Mégantic	6 July 2013	4,830	4,830	[20]
Cushing storage terminal	United States, Oklahoma, Cushing	18 May 2013	340	340	[21][22]
Mayflower	United States, Arkansas, Mayflower	30 March 2013	680	950	[23]
Magnolia refinery	United States, Arkansas, Magnolia	9 March 2013	680	760	[24][25]

Spill / Vessel	Location	Dates	Min Tonnes	Max Tonnes	Link(s)
Bullenbaai	Curaçao, Bullenbaai	7 November 2012	unknown	unknown	[26][27]
Arthur Kill storage tank spill (Hurricane Sandy)	United States, New Jersey, Sewaren	29 October 2012	1,090	1,130	[28][29]
Curaçao	Curaçao, Isla refinery and Jan Kok nature preserve	17 August 2012	unknown	unknown	[30][31]
Sundre, Alberta	Canada, Sundre	8 June 2012	410	410	[32]
Guarapiche	Venezuela, Maturín, Monagas	4 February 2012	680	41,000	[33][34]
Nigeria	Nigeria, Bonga Field	21 December 2011	5,500	5,500	[35]
TK Bremen	France, Brittany, Erdeven	16 December 2011	220	220	[36]
Campos Basin	Brazil, Campos Basin, Frade Field	7 November 2011 – 15 November 2011	89	400	[37] [38]
Rena oil spill	New Zealand, Tauranga, Bay of Plenty	5 October 2011 – August 2012	350	350	[39] [40]
North Sea oil	United Kingdom, North Sea, Gannet Alpha platform	10 August 2011 – 13	216	216	[41]

Spill / Vessel	Location	Dates	Min Tonnes	Max Tonnes	Link(s)
		August 2011			
Yellowstone River	United States, Billings, Montana,Yellowstone River	1 July 2011	105	140	[42]
Bohai Bay oil spill	China, Bohai Bay	4 June 2011 – 19 June 2011	204	204	[43][44]
Little Buffalo oil spill	Canada, Alberta	29 April 2011	3,800	3,800	[45][46]
Mumbai-Uran pipeline spill	India, Mumbai, Arabian Sea	21 January 2011	40	55	[47][48]
Fiume Santo power station	Italy, Sardinia, Porto Torres	11 January 2011	15	15	[49]
Mumbai oil spill / MV *MSC Chitra* and MV*Khalijia 3*	India, Mumbai, Arabian Sea	7 August 2010 – 9 August 2010	400	800	[50][51][52]
Barataria Bay oil spill	United States, Barataria Bay, Gulf of Mexico	27 July 2010 – 1 August 2010	23	45	[53][54][55][56]
Kalamazoo River oil spill	United States, Kalamazoo River, Calhoun County, Michigan	26 July 2010	2,800	3,250	[57][58]
Xingang Port oil spill	China, Yellow Sea	16 July 2010 – 21 July 2010	1,500	90,000	[59] [60]

Spill / Vessel	Location	Dates	Min Tonnes	Max Tonnes	Link(s)
Jebel al-Zayt oil spill	Egypt, Red Sea	16 June 2010 – 23 June 2010	*unknown*	*unknown*	[61]
Red Butte Creek oil spill	United States, Salt Lake City, Utah	11 June 2010 – 12 June 2010	65	107	[62][63]
Trans-Alaska Pipeline	United States, Anchorage, Alaska	25 May 2010	400	1,200	[64]
MT *Bunga Kelana 3*	Singapore, Singapore Strait	25 May 2010	2,000	2,500	[65][66][67]
ExxonMobil	Nigeria, Niger Delta	1 May 2010	3,246	95,500	[68][69][70]
Deepwater Horizon	United States, Gulf of Mexico	20 April 2010 – 15 July 2010	492,000	627,000	[71]
Great Barrier Reef / MV *Shen Neng 1*	Australia Great Keppel Island	3 April 2010	3	4	[72][73][74]
Port Arthur oil spill	United States, Port Arthur, Texas	23 January 2010	1,500	1,500	[75]
Yellow River oil spill	China, Chishui River (Shaanxi)	5 January 2010	130	130	[76]
Montara oil spill	Australia, Timor Sea	21 August 2009	4,000	30,000	[77][78]

Spill / Vessel	Location	Dates	Min Tonnes	Max Tonnes	Link(s)
Full City	Norway, Rognsfjorden near Såstein south ofLangesund	31 July 2009	200	200	[79]
Lüderitz oil spill	Namibia, Southern coast	8 April 2009	*unknown*	*unknown*	[80]
Queensland	Australia, Queensland	10 March 2009	230	260	[81]
West Cork oil spill	Ireland, Southern coast	February 2009	300	300	[82]
New Orleans	United States, New Orleans, Louisiana	28 July 2008	8,800	8,800	[83]
Statfjord oil spill	Norway, Norwegian Sea	12 December 2007	4,000	4,000	[84]
Korea oil spill	South Korea, Yellow Sea	7 December 2007	10,800	10,800	[85][86]
Kerch Strait oil spill	Ukraine Russia, Strait of Kerch	11 November 2007	1,000	1,000	[87]
COSCO Busan oil spill	United States, San Francisco, California	7 November 2007	188	188	[88]
Kab 101	Mexico, Bay of Campeche	23 October 2007 – 17 December 2007	1,869	1,869	[89]

Spill / Vessel	Location	Dates	Min Tonnes	Max Tonnes	Link(s)
Burnaby	Canada, Burnaby, British Columbia	24 July 2007	201	201	[90]
Guimaras oil spill	Philippines, Guimaras Strait	11 August 2006	172	1,540	[91]
Jiyeh power station oil spill	Lebanon	14 July 2006 – 15 July 2006	20,000	30,000	[91]
Citgo refinery	United States, Lake Charles, Louisiana	19 June 2006	6,500	6,500	[92]
Prudhoe Bay oil spill	United States, Alaska North Slope, Alaska	2 March 2006	653	689	[93]
Bass Enterprises Oil Spill (Hurricane Katrina)	United States, Cox Bay, Louisiana	30 August 2005	12,000	12,000	[94]
Shell (Hurricane Katrina)	United States, Pilottown, Louisiana	30 August 2005	3,400	3,400	[94]
Chevron (Hurricane Katrina)	United States, Empire, Louisiana	30 August 2005	3,200	3,200	[94]
Murphy Oil USA refinery spill (Hurricane Katrina)	United States, Meraux and Chalmette, Louisiana	30 August 2005	2,660	3,410	[94] [95]
Bass Enterprises (Hurricane Katrina)	United States, Pointe à la Hache, Louisiana	30 August 2005	1,500	1,500	[94]

Spill / Vessel	Location	Dates	Min Tonnes	Max Tonnes	Link(s)
Chevron (Hurricane Katrina)	United States, Port Fourchon, Louisiana	30 August 2005	170	170	[94]
Venice Energy Services Company (Hurricane Katrina)	United States, Venice, Louisiana	30 August 2005	81	81	[94]
Shell Pipeline Oil (Hurricane Katrina)	United States, Nairn, Louisiana	30 August 2005	44	44	[94]
Sundown Energy (Hurricane Katrina)	United States, West Potash, Louisiana	30 August 2005	42	42	[94]
MV *Selendang Ayu*	United States, Unalaska Island, Alaska	8 December 2004	1,560	1,560	[96]
Athos 1	United States, Delaware River, Paulsboro,New Jersey	26 November 2004	860	860	[97]
MP-80 Delta 20" pipeline (Hurricane Ivan)	United States, Louisiana	16 September 2004 – 19 September 2004	963	963	[98]
MP-69 Nakika 18" & MP-151 Nakika 18" pipeline (Hurricane Ivan)	United States, Louisiana	16 September 2004 – 6 October 2004	618	618	[98]
Chevron-Texaco tank collapse (Hurricane Ivan)	United States, Louisiana	16 September 2004 – 17 September 2004	423	423	[98]

Spill / Vessel	Location	Dates	Min Tonnes	Max Tonnes	Link(s)
Tasman Spirit	Pakistan, Karachi	28 July 2003	28,000	30,000	[99][100]
Bouchard No. 120	United States, Buzzards Bay, Bourne,Massachusetts	27 April 2003	320	320	[101]
Prestige	Spain, Galicia	13 November 2002	63,000	63,000	[102][103]
Limburg (bombing)	Yemen, Gulf of Aden	6 October 2002	12,200	12,200	[104][105]
Manguinhos refinery	Brazil, Guanabara Bay, Rio de Janeiro	23 November 2001	34	97	[106]
Trans-Alaska Pipeline gunshot spill	United States, Alaska	4 October 2001	932	932	[107]
Shell Ogbodo	Nigeria	25 June 2001	9,500	*unknown*	[108]
2001 Shell Ogoniland oil spill	Nigeria	May 2001	*unknown*	*unknown*	[109]
Petrobras 36	Brazil, Roncador Oil Field, Campos Basin	15 March 2001	274	274	[110]
Amorgos oil spill	Taiwan, Southern coast	14 January 2001	1,150	1,150	[111]
Jessica	Ecuador, Galapagos Islands	January 2001	568	568	[112] [113]

Spill / Vessel	Location	Dates	Min Tonnes	Max Tonnes	Link(s)
Pine River	Canada, Chetwynd, British Columbia	1 August 2000	850	850	[114]
Project Deep Spill	Norway, Helland Hansen ridge	June 2000	100	100	[115]
Treasure	South Africa, Cape Town	June 2000	1,400	1,400	[112]
Petrobras pipeline					

From: Stephen McCall [mailto:stephen.mccall@outlook.com]
Sent: Monday, April 14, 2014 10:58 PM
To: Oil Project; Ken Robertson
Subject: Proposed E&B Oil and Drilling production Project - Comments & Questions, McCall 20th Pl

To whom it may concern:

Please find below my comments and questions that I would like your review and consideration on.

I would appreciate it if you could email me back to confirm receipt.

Thanks!
-Stephen McCall

About me...
I am a homeowner in Hermosa Beach at 1219 20th Place, with my wife and two children aged 2 and 4.
I've reviewed the DEIR, as well as CBA, HIA.
I attended the full public comment meeting on 4/10 to review the DEIR.

Thanks to the City...
I appreciate that the City has gone above and beyond to involve the community in the review of this project and sincerely hope this openness will continue in the time leading up to public vote, where it is critical there can be sufficient information presented in a relateable way for people to make an informed decision.

Factual based comments + questions...

1. Presentation of findings - can the findings be related to similar projects in other cities (Beverly Hills, Huntington Beach... USA or outside of the USA) - what are the proportion of 'successful' projects where there have been no issues and the community has been fully supportive, versus 'unsuccessful' projects where disasters have arisen, health issues, etc. Can the finding be more relateable both in using visuals MCCS-1

	of the proposed site and buildings; as well as on matters such as noise, smell, etc. Can the findings be related to the previous time this measure was evaluated and voted on. Can the findings be presented at a public town hall event, with public Q&A.	
2.	Oil production / manufacturing - how does the proposed volume for E&B / Hermosa project relate to current oil #'s for Manhattan Beach, El Segundo, Redondo Beach, Santa Barbara, Malibu, Huntington Beach, etc.?	MCCS-2
3.	Increase in mortality rate - needs to be 0.0. I'm not sure how people could ethically vote on a project where there is even the slimmest percentage possibility of people's health being affected.	MCCS-3
4.	Impact on tourism, impact on property values, etc. - these findings need to be better thought through given the wider implication to the community.	MCCS-4
5.	Trucks in Hermosa Beach - what is the current volume of trucks (garbage, etc.) and how does the proposed increase for oil transportation relate to this?	MCCS-5
6.	Scenario planning, if the project does not get supported - will the City go bankrupt. If so, what will the implications be to residents on taxes, schools, etc. Give examples from other cities.	MCCS-6
7.	Investments to the community - what would be the proposed investment in schools and other key areas if the project is supported? How quickly would we see those benefits directly impacting those areas?	MCCS-7
8.	Ban on fracking for the entire period of any permit.	MCCS-8
9.	Independent report on E&B - history, experience at other sites.	MCCS-9
10.	What happens after 34 years - if the project is given the go-ahead, can the project only be given a finite life?	MCCS-10
11.	Will council members and those on the review board be stating their intended position to vote 'yes' or 'no' on this?	MCCS-11

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Terri Dinubilo

From: Kennedi McCarroll <kennedimchs@gmail.com>
Sent: Monday, March 17, 2014 10:50 PM
To: City Clerk
Cc: tnielsen@mbusd.org

122 Barney Ct.
Hermosa Beach, CA 90254
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hi, my name is Kennedi McCarroll, and I am a resident in Hermosa Beach. My family and I have been living in Hermosa Beach for over twelve years. We are blessed to live in a beautiful and fortunate area. I am writing to you because of my thoughts about oil drilling off the coast of Hermosa. We have been talking about the pros and cons it has in the chemistry class I am enrolled in at Mira Costa high school. I am strongly against drilling off the coast of Hermosa. MCCK-1 It could cause potential issues for the city of Hermosa Beach. The drilling will cause air pollution, constant noise, and traffic will be a bigger problem. There are much more cons than pros that have to do with this issue.

If Hermosa were to have oil drilling, the air pollution will be released at all stages of oil and gas operations. MCCK-2 It would release dangerous pollutants into the air for the life of the project. There is no guarantee or requirement for it to be clean or safe. The drilling could cause fires and unexpected things to go wrong. MCCK-3 The chemicals that could be released from the drilling could cause increase in asthma attacks, heart attacks, heart failure, and bronchitis. It will cause risk to humans and potentially sea animals. MCCK-4

Another problem with the oil drilling is that it will cause constant noise. Nearly 50% of Hermosa Beach residents live within 0.5 miles of the proposed drilling site. The drilling site would include thirty oil wells, four wastewater reinjection wells, storage tanks, waste treatment facilities, miles of underground pipeline, drilling rigs, and the drilling can run twenty-four hours a day, seven days a week. MCCK-5 Constant light and noise from construction will add to the annoyance factor. Not only that but odors will cause a huge issue. MCCK-6 All together, it will lower property value and make our city less attractive. MCCK-7 Tourists will have no interest in visiting our cute town anymore. MCCK-8

The city traffic flow will be seriously impacted by the drilling. It is estimated that heavy trucks from E&B will add 10,500 miles during the first ten months of construction. The traffic could potentially cause more accidents due to people who are in a rush. The increased traffic could occur along the city streets or along the routes elementary school children take on the way to and from school. This could be extremely dangerous because some kids do not pay attention and could be severely injured. MCCK-9

The oil drilling may have more cons than pros but others believe the oil drilling should occur in Hermosa Beach. This controversy could really go either way. The funds of the oil drilling could pay for education and it could take our city out of debt. It could bring wealth to our city although the drilling may be a big risk to take. MCCK-10

I appreciate you reading my letter and hope you can take it into consideration. I do not want to see the city of Hermosa Beach to change. It is a beautiful city and I would like for it to say that way. Thanks again for taking the time to read my letter. It is much appreciated.

Sincerely,
Kennedi McCarroll

Terri Dinubilo

From: Morgan McCarroll <morganmccarroll5@gmail.com>
Sent: Monday, March 17, 2014 9:59 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

122 Barney Ct.

Hermosa Beach, CA 90254

March 17, 2014

Mayor Michael DiVirgilio

Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,

City Manager Tim Bakaly

City of Hermosa Beach

1315 Valley Drive

Hermosa Beach, California 90254

Dear, Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Morgan McCarroll from Hermosa Beach, California and I am writing to you because of my thoughts about oil drilling off the coast of Hermosa. I am against oil drilling in Hermosa because I think it has fewer pros than cons. Health issues, cost of the project, appearance of Hermosa Beach, air pollution and noise can potentially affect residents of surrounding areas. I sure don't want this to happen to beautiful Hermosa Beach and I'm sure I speak for others as well. Residents of Hermosa are so fortunate and lucky to live here. The beauty shouldn't be ruined by something we might regret. MCCM-1

Nearly fifty percent of the city's residents live within 0.5 miles of the site. Air pollution will be released of oil and gas operations for the life of the project. Some chemicals being released include benzene, formaldehyde, propylene, toluene, xylenes, and more. These chemicals can increase asthma attacks, bronchitis, heart attacks, heart failure, headaches, and cardiac arrhythmia, and augmented hospital admissions and emergency room visits. It causes risks to human life incorporating oil spills, fires, equipment failures, leaks, explosions, falling objects, and vehicle accidents. If 10,000 to 20,000 gallons of oil spilled in Hermosa Beach it would spread 17 miles away causing wildlife harm, fishing, fewer tourists, and less money. MCCM-2

Another problem with oil drilling is it would cost millions of dollars. The total cost of the project is measured out to be 28.7 – 30.7 million. This isn't worth the money because of all the cons. It's not worth the MCCM-3

they to have health issues and affect residents of Hermosa Beach. This affects the cost of new and refinanced real estate loans. These loans will be denied because of environmental threats to the area. When it comes to cost ask yourself about all the negative affects.

Hermosa Beach won't look the same if they pass oil drilling. The proposed site will be less than 100 feet away from homes and businesses. Also a 135 - foot tower will be built overlooking the greenbelt. It will block the view of the ocean. Nobody wants a blocked view of the ocean. Hermosa simply won't be the same. It could have the risk of the ocean floor and our beaches sinking. MCCM-4 MCCM-5

Lastly, it causes a great amount of air pollution and noise is an issue. Explosions and dangerous gases are a potential threat. The risk of noise is 24/7 and at 70 decibels plus. The oil tank trunks and odor will be unbearable to residents. There is an area of 250 yards of high impact zone. This includes noise, odor, dangerous gases and explosions. MCCM-6

There is no way to contain the odor or deadly gases that are going to be breathed. This isn't fair and could highly affect Hermosa Beach.

I hope you can consider my thoughts on oil drilling in Hermosa Beach. I don't want to see change in Hermosa Beach after almost all my life. It has so many problems and could harm Hermosa greatly. It's not fair for the residents that live here. I hope I influenced no oil drilling in Hermosa Beach. Thank you and I look forward to hearing back from you. Addendum to MCCM-1

Sincerely,

Morgan McCarroll

-----Original Message-----
From: carey m [mailto:mrcarey415@yahoo.com]
Sent: Friday, April 11, 2014 10:49 PM
To: Oil Project
Subject: Hermosa Beach Oil Drilling Project Comment for Draft EIR

I know for a fact that there is an entire infrastructure of pipes under our city. Thousands of feet of water, sewer, gas and several oil pipelines that are established. I took a planning course in college and remember reviewing schematics that showed where all pipelines were placed under and near residential and industrial areas.

I live at 8th and Loma, near the proposed oil facility and in reviewing the summary, I read where the pipeline would have to be built from the proposed site to 190th Street/Herondo. During my research found two oil pipelines have been here for several years. I did a scan of the reports and didn't find that information. MCCC-1

Both the ExxonMobil and Chevron pipelines need exposure and it would be helpful for those who are making a decision to understand how long they have been in operation and how much crude is flowing through the pipes and how much is anticipated to flow. Also, an incidence or

risk assessment based on the history of those pipelines would dramatically alter the “sky is falling” mentality we are all hearing from residents.

Please consider offering these simple solutions and include a visual component of this request in the final version of the EIR.

Thank you!

Carey McCormick - Independent Behavior Therapist Working with individuals and families in the Los Angeles Metro. 8 Years Experience
858-254-9473 cell
mrcarey415@yahoo.com

P.O. Box 45220
Los Angeles, CA 90045
March 14, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirigilio, council Members Tucker, Barragan, Petty, Fangary, and City Manager Bakaly:

My name is Malik McDaniel, and I am a student attending Mira Costa High School. Today I am discussing the topic of the drilling that will be commencing in Hermosa. I believe that drilling in Hermosa would benefit the city greatly. As we all know, drilling in the Middle East is becoming more expensive due to fact that oil is becoming scarce. Drilling in Hermosa would not only bring prosperity and wealth to the city, but this would also lessen the dependence of oil from foreign countries, like Iraq. Another reason why drilling is a good idea because there have been no current sources of energy to replace it. MCDM-1 See MCDM-3 See MCDM-4

Wealth is an important part of this city in order to keep programs open to further educate the new generation that will be residing in Hermosa Beach. Reported in the analysis of the project for the city, it is stated by C.Wil Soholt, Vice President of Kosmont Cos., that this project will generate $147 million to $299 million of the course of the next three decades. Estimates from E&B Natural Resources calculate that profits can top out at $500 million. With the revenue from this project, this would be able to support the city financially to help mold the future for the next generation. MCDM-2

Another benefit of this drilling project, would be the fact that this would bring us closer to self reliance or in other make us less dependent for foreign oil, rather than importing it from Middle Eastern countries, such as Iraq. This self reliance would therefore balance the world economy and in our country as well, because the countries providing the oil, would have a lesser voice in the prices of petroleum. Another benefit going tandem with the self dependence would be the creation of jobs for many people, thus reducing the unemployment rate of 5.0% (as of 2010). This would also boost the income per capita of Hermosa which is already 119.9% greater than the California average, and 158.8% greater than the nation average. MCDM-3

In addition to increased wealth and self reliance, petroleum is one of, if not the cheapest source of energy. Take hydrogen for example. Hydrogen during combustion with oxygen has no by products other than water. It is very expensive to pull hydrogen from water, and ironically the carbon dioxide releasing from producing hydrogen from fossil fuels actually outweighs the benefits. According to PBS,"Hydrogen that escapes during the production process could erode the ozone layer even further and exacerbate global warming". However this is not the only challenge faced while trying to use hydrogen as a fuel cell. Because of its high density, hydrogen must be stored at high pressure. These containers will have to be able to withstand impact from crash because, like gas it is very flammable and has no smell. Platinum is the current solution, but because of its scarcity, it is not very probable. Sensors would also have to be included to alert the driver of a leak before it combusts. MCDM-4

Now one of the major concerns with continuing with this project is safety. Through previous examples, like the Gulf oil spill, it has been proved disastrous for the wildlife of the ecosystem, which therefore affects the community. But gas and oil companies have learned from their mistakes. Gas detectors in homes are now used to recognize irregularities in air levels which would be caused by high levels of carbon dioxide, nitric oxide, and combustible gases like methane and propane. The same thing applies to oil rigs off the coast. Detectors and sensors will be used to monitor the rigs and point out any spikes in gas leakage so it may be repaired immediately. On top of that, the new sturdier materials used to build the rigs are constantly being improved to ensure the safety of the community. MCDM-5

Oil Drilling can be proved to be a worthy investment for the city of Hermosa economically as well as sovereign from other countries oil trade. This project would help increase the value of this city and improve schools to help future generations thrive in this ever changing world. Oil has also been proved to be a stable energy source compared to hydrogen power and electricity, which still causes the same amount of emissions if not more. Overall the pros of drilling outweigh the cons, therefore making it clear that this project is beneficial to not only Hermosa, but also to the rest of the nation. Addendum to MCDM-1

Respectfully,

Malik McDaniel

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My name is Chris Miller.

In preparing my remarks for tonight I used the draft EIR to formulate my questions regarding 3 areas of concern.

First, I reading through the EIR I could not find any reference to my concerns for methane gas. Although not toxic methane is extremely flammable and may form explosive mixture when mixed with air. Will there be a baseline survey for current levels of methane soil gas in the area? Are there any monitoring plans for soil gas conditions during the drilling and oil production phases? MILC-1

My second area of concern is hydrogen sulfide which is know to drastically affect your health. While the Occupational Safety and Health Administration (OSHA) provides MILC-2

stringent regulations for all personnel working at well drilling locations where the concentration of hydrogen sulfide. According to OSHA, hydrogen sulfide is a flammable, colorless gas with a rotten egg odor that is toxic to humans and highly combustible in combination with other metals and fire. Site operators are required to provide employees warning signs, respiratory equipment, comprehensive training and emergency contingency plans. Will the E & B provide the residents , businesses , children playing little league at Clark Stadium or shoppers at the Friday Farmer's Market with these same respiratory equipment and hydrogen sulfide monitors? This is one more example of how this project is just too close to homes and businesses to be safe for the community of Hermosa Beach.

MILC-2 continued

Finally, when I requested more information regarding the possibility of a water injected

MILC-3

project and induced seismicity I was told this not an area of concern by the consultants, MRS. I went further to do my own investigation and found several reports from all over the country where this is a cause for concern. The oil is in this area is here because of the natural seepage from the two earthquake fault lines that traverse through this proposed drill site. The Redondo Fault line and the Palos Verdes fault line which run right through the proposed drill area.

MILC-3 continued

With the numerous reports declaring the re-injected water drilling has been known to cause earthquakes in Denver, Ohio and other locations throughout the country I would think the best idea is to listen to these experts. Just this week Including the United states geological survey which states induced events are frequent enough and, recently, large enough to increase seismic hazard.The summary continues,

research progress requires better seismic networks around injection wells and at this time cannot estimate the probability of a given injection well inducing earthquakes . In other words without more study the injection induced seismic events need more study I do not think Hermosa Beach and the entire Santa Monica Bay should become a guinea pig for the profits of E & B with hazards resting completely on the residents of Hermosa.

MILC-3 continued

Although the decision to lift the ban or to keep it in place will ultimately be made by the voters of Hermosa Beach. This project has the potential to effect all the residents of the Santa Monica Bay. Most of us live here because we see the amazing value of the area we live in as priceless. This proposal should be in my mind the equivalent of some people deciding to dismantle Michaelangelo's sculpture of David for the marble. Only greed and

MILC-4

money would endorse such an endeavor.

Methane and Hydrogen Sulfide

Safety[edit]

Methane is not toxic, yet it is extremely flammable and may form explosive mixtures with air. Methane is violently reactive with oxidizers, halogens, and some halogen-containing compounds. Methane is also an asphyxiant and may displace oxygen in an enclosed space. Asphyxia may result if the oxygen concentration is reduced to below about 16% by displacement, as most people can tolerate a reduction from 21% to 16% without ill effects. The concentration of methane at which asphyxiation risk becomes significant is much higher than the 5–15% concentration in a flammable or explosive mixture. Methane off-gas can penetrate the interiors of buildings near landfills and expose occupants to significant levels of methane. Some buildings have specially engineered recovery systems below their basements to actively capture this gas and vent it away from the building.

Methane gas explosions are responsible for many deadly mining disasters.[63] A methane gas explosion was the cause of the Upper Big Branch coal mine disaster in West Virginia on April 5, 2010, killing 25.[64]

Exposure to Hydrogen Sulfide

- Hydrogen sulfide is primarily released as a gas into the air. Because of this, one of the main routes for hydrogen sulfide exposure is through inhalation. Hydrogen sulfide is readily absorbed in the lungs, increasing breathing problems and other respiratory issues. You can also be exposed to hydrogen sulfide from breathing polluted air and contact with contaminated water. People who work in certain industries such as mining, and oil and natural gas drilling and refining are more likely to be exposed to higher levels of hydrogen sulfide.

Monitors range from 125 – over 1400 –

-

Health Effects and Hydrogen Sulfide

- Hydrogen sulfide can drastically affect your heath. Therefore, it is extremely important to know some signs and symptoms of hydrogen sulfide gas poisoning to reduce your chances of becoming ill. Low-concentration exposure (anything less than 50

Summary

- Injection-induced seismicity has been increasing since about 2008
- Some cases are debatable, some less so
- Induced events are frequent enough and, recently, large enough, to increase seismic hazard
- Can't yet estimate probability of a given injection well inducing earthquakes
- Research progress requires better seismic networks around injection wells
- Model simulations require pressure and flow records and pre-injection pressures

USGS

Los Angeles Times MONDAY, APRIL 14, 2014 A9

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Ohio finds probable link between fracking, quakes

Report comes as state imposes the nation's strictest limits on the process near faults.

BY PARESH DAVE

Ohio geologists have found a probable connection between fracking and several mild earthquakes in a region that had never experienced a temblor until recently, according to a state report.

The report, which coincided with Ohio's announcement of some of the nation's strictest limits on fracking near faults, marked the strongest link to date between nerve-rattling quakes and hydraulic fracturing — the process of firing water, sand and chemicals deep into the earth to extract oil and natural gas from ancient rock.

Last month, the state indefinitely shut down Hilcorp Energy Co.'s fracking operation near the Pennsylvania border after five earthquakes, including one magnitude 3 temblor that shook many Ohioans awake.

Federal scientists have previously linked earthquakes in part to the use of injection wells, where post-fracking wastewater is forced back deep into the earth for storage. None of the seven wells near the Ohio quakes were used for waste disposal, leaving Ohio scientists to go a step further to find a significant relationship between the initial blast of fluid and the earthquakes shortly thereafter.

They "believe the sand and water injected into the well during the hydraulic fracturing process may have increased pressure on an unknown microfault in the area," the Ohio Department of Natural Resources said in a statement about the operation in Poland, Ohio.

The new rules require companies to install "sensitive seismic monitors" before beginning to drill sideways into underground rock "within 3 miles of a known fault or area of seismic activity greater than a 2.0 magnitude."

Humans can generally feel earthquakes in excess of magnitude 3.

Drilling would be suspended pending investigation whenever the monitors detect anything above magnitude 1.

"While we can never be 100% sure that drilling activities are connected to a seismic event, caution dictates that we take these new steps to protect human health, safety and the environment," department Director James Zehringer said.

Data gathered by the monitors would be used to improve fault maps, he said.

Hilcorp Energy said that it was reviewing the new permitting rules and that it remained "fully committed to public safety and acting in a manner consistent with being a good corporate citizen."

Officials from Ohio and several other states that have seen an increase in seismic activity met recently to discuss how to handle the expansion of fracking to new beds of rock, where faults might not be well mapped.

Gerry Baker, associate executive director of the Interstate Oil and Gas Compact Commission, called Ohio's new rules a "sensible response to a serious issue that regulators across the country are closely examining."

Oklahoma, Texas, Arkansas and Kansas have been among those seeing the largest surges in seismic activity.

Critics of fracking have long warned of a possible connection between earthquakes and the expanded drilling for oil and gas in shale deposits. They have also raised concerns about possible groundwater contamination by fracking chemicals.

Ray Beiersdorfer, a Youngstown State University geology professor whose wife co-founded Frackfree America, said the new regulations mirrored what he had been seeking.

He has asked Ohio officials to make public the data they used to find the connection as well as set the new restrictions.

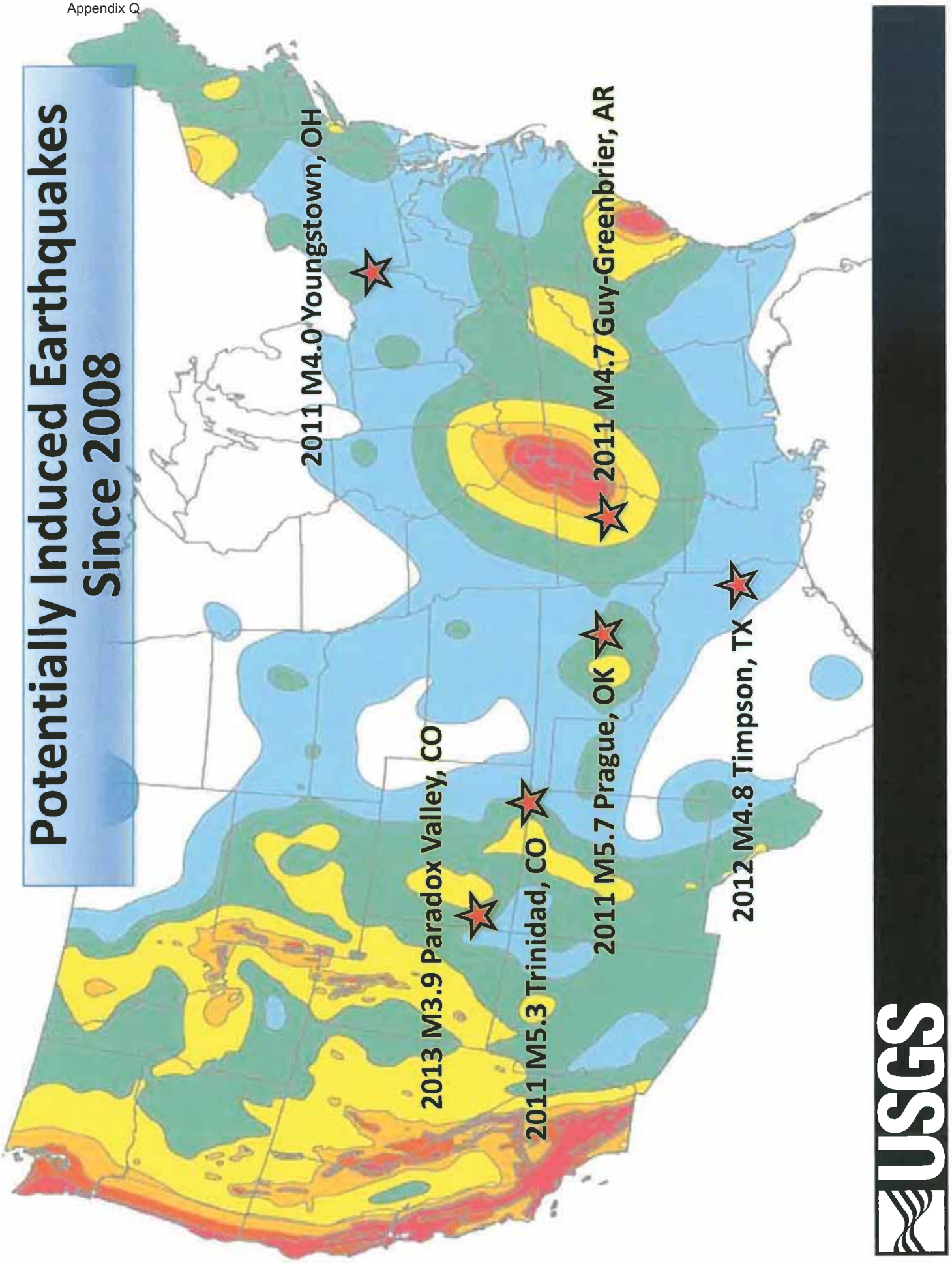
"The whole problem is no one knows about these faults until the earthquakes happen because the faults haven't been researched," he said.

Oil and gas companies have tended to avoid the well-known fault lines in Ohio, according to the industry publication Natural Gas Intelligence. But industry leaders maintained there is scant evidence that fracking causes earthquakes and labeled the temblors isolated incidents.

At Hilcorp's site directly above last month's earthquakes, the state has banned further fracking but has allowed wells already fracked to resume operating.

"This is also expected to have the beneficial effect of reducing underground pressure and decreasing the likelihood of another seismic event," the state said.

paresh.dave@latimes.com


Potentially Induced Earthquakes
Since 2008
2011 M4.0 Youngstown, OH
2011 M4.7 Guy-Greenbrier, AR
2012 M4.8 Timpson, TX
2011 M5.7 Prague, OK
2011 M5.3 Trinidad, CO
2013 M3.9 Paradox Valley, CO
USGS

Summary

- Injection-induced seismicity has been increasing since about 2008
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U.S. Geological Survey Earthquake Research on Injection-induced Seismic Activity: a Progress Report

Evelyn Roeloffs
USGS Earthquake Science Center
Summarizing work by
Bill Ellsworth, Steve Hickman, Ole Kaven, Andrea Llenos, Art McGarr, Andy Michael, Evelyn Roeloffs, and Justin Rubinstein
plus collaborators

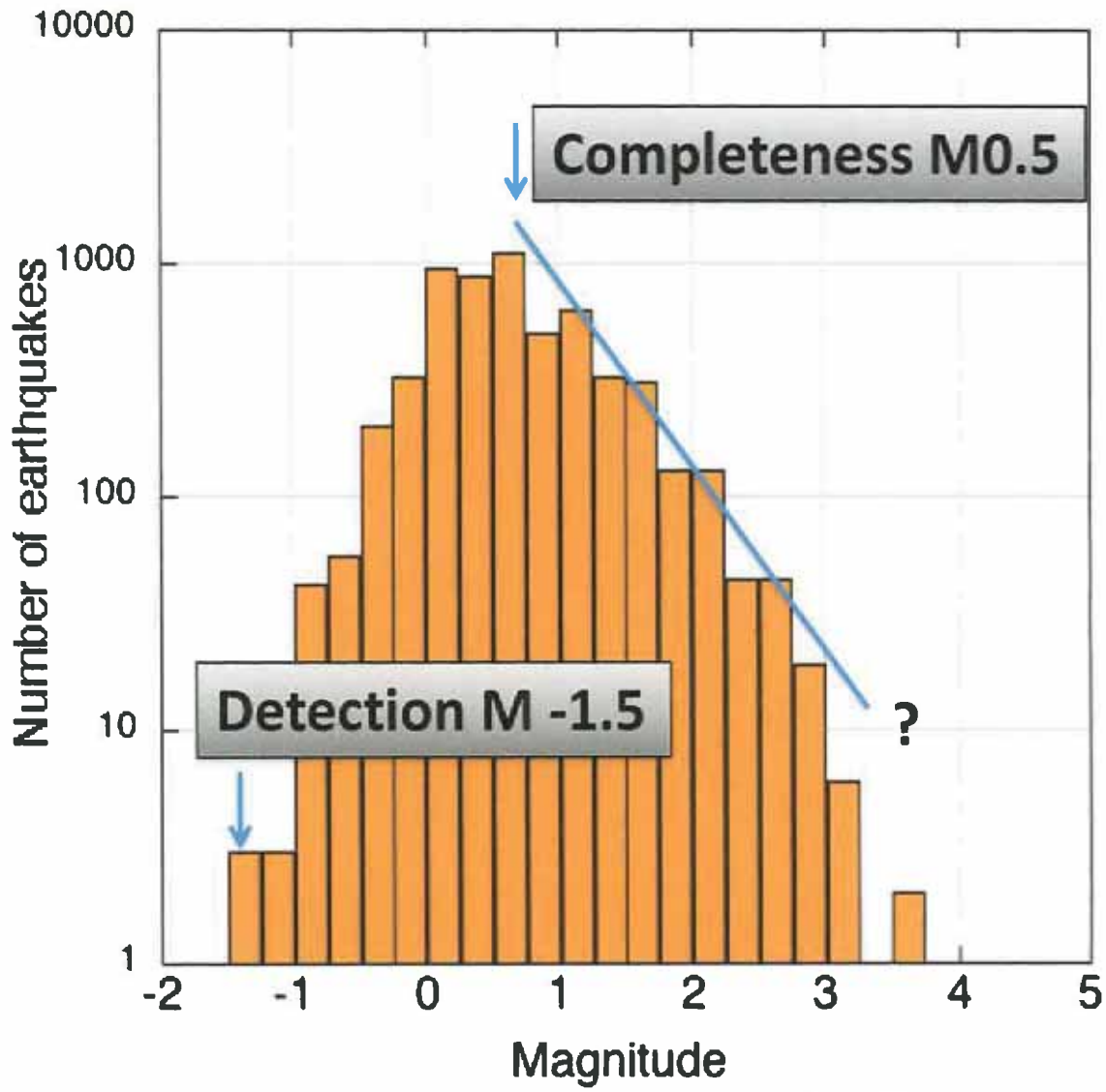
USGS

Need adequate data to answer

Ideally, a sensitive seismic network installed prior to injection

Example: Bureau of Reclamation Paradox Valley Seismic Network 1991-2011

National network completeness not better than M2.5



Data: Bureau of Reclamation

USGS

Induced or not?

Re-visit Davis & Frohlich (1993)'s seven questions:

1. Are they the first known earthquakes of this type in the region?

2. Clear time correlation between injection and seismic activity?
3a. Are epicenters near the well(s)?
3b. Are some earthquake depths at or near injection depths?

3c. If some earthquakes occur away from wells, are there known geologic structures that may channel fluid flow to sites of earthquakes?

4a. Are bottom-hole fluid-pressure changes sufficient to cause fault slip?
4b. Are fluid-pressure changes sufficient to encourage fault slip at hypocentral locations?

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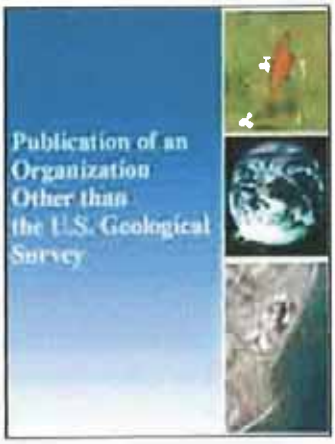

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Geology of the continental margin beneath Santa Monica Bay, Southern California, from seismic-reflection data

2003, Fisher, M. A.; Normark, W. R.; Bohannon, R. G.; Sliter, R. W.; Calvert, A. J.

Bulletin of the Seismological Society of America, 93: 1955 - 1983

No online versions are available.

A print version of this publication is not available from the USGS Store

Abstract:
We interpret seismic-reflection data, which were collected in Santa Monica Bay using a 70-in3 generator-injector air gun, to show the geologic structure of the continental shelf and slope and of the deep-water, Santa Monica and San Pedro Basins. The goal of this research is to investigate the earthquake hazard posed to urban areas by offshore faults. These data reveal that northwest of the Palos Verdes Peninsula, the Palos Verdes Fault neither offsets the seafloor nor cuts through an undeformed sediment apron that postdates the last sea level rise. Other evidence indicates that this fault extends northwest beneath the shelf in the deep subsurface. However, other major faults in the study area, such as the Dume and San Pedro Basin Faults, were active recently, as indicated by an arched seafloor and offset shallow sediment. Rocks under the lower continental slope are deformed to differing degrees on opposite sides of Santa Monica Canyon. Northwest of this canyon, the continental slope is underlain by a little-deformed sediment apron; the main structures that deform this apron are two lower-slope anticlines that extend toward Point Dume and are cored by faults showing reverse or thrust separation. Southeast of Santa Monica Canyon, lower-slope rocks are deformed by a complex arrangement of strike-slip, normal, and reverse faults. The San Pedro Escarpment rises abruptly along the southeast side of Santa Monica Canyon. Reverse faults and folds underpinning this escarpment steepen progressively southeastward. Locally they form flower structures and cut downward into basement rocks. These faults merge downward with the San Pedro Basin fault zone, which is nearly vertical and strike slip. The escarpment and its attendant structures diverge from this strike-slip fault zone and extend for 60 km along the margin, separating the continental shelf from the deep-water basins. The deep-water Santa Monica Basin has large extent but is filled with only a thin (less than 1.5-km) section of what are probably post-Miocene rocks and sediment. Extrapolating ages obtained from Ocean Drilling Program site 1015 indicates that this sedimentary cover is Quaternary, possibly no older than 600 ka. Folds and faults along the base of the San Pedro Escarpment began to form during 8-13 ka ago. Refraction-velocity data show that high-velocity rocks, probably the Catalina Schist or Miocene volcanic rocks, underlie the

velocity rocks, probably the Catalina Schist or Miocene volcanic rocks, underlie the sedimentary section. The San Pedro Basin developed along a strike-slip fault, widens to the southeast, and is deformed by faults having apparent reverse separation and by folds near Redondo Canyon and the Palos Verdes Peninsula.

Additional Publication Details

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Underground Injection and Seismic Activity

EPA's new Underground Injection Control (UIC) regulations for Class VI wells helps ensure that CO_2 injection activities will not result in significant seismic activity. The regulations specify criteria for site selection and monitoring that must be met before a site can be considered suitable for CO_2 injection per 40 CFR 146.82 and 146.90. This permitting process identifies risks and eliminates unacceptable sites prior to injection.

Seismic activity

Most seismic events result from the natural geologic processes reshaping the earth. However, human activities such as primary or secondary oil recovery, solution mining, explosions, large impoundments of water, geothermal stimulation, or other fluid injection can also generate seismic events by increasing subsurface pressure. When this happens, portions of the subsurface can be induced to move, generating seismic events.

UIC safeguards against seismic activity

Owners or operators applying for a Class VI permit must supply information to the UIC Program Director demonstrating that seismic events of any origin would not interfere with containment of CO_2 (see the box to the right).

UIC Program's experience with seismic activity

The Class VI regulations are based on the strong track record of controlling injection-related seismic activity in other classes of injection wells since 1974. One of the most commonly cited examples of injection-related seismic events, Rocky Mountain Arsenal, occurred before the federal UIC Program was created and would have been prevented under today's regulations. Injection of water and hazardous waste at the Rocky Mountain Arsenal from 1962 to 1966 was linked to an increase in seismic activity, including magnitude 5.1 and 5.2 earthquakes. Later investigation determined that poor site selection and unmonitored injection pressures contributed to the events. Under today's UIC Program, that project would not be allowed because the site would fail to meet site characterization and operational requirements.

Class VI Permit Requirements

When applying for a Class VI permit, owners or operators must provide the following to ensure that seismic activity will not endanger or compromise a USDW, a Class VI well, or an injection or confining zone:

- Information on the seismic history of the region.
- Subsurface pressure data.
- Maximum planned injection pressure.
- The strength of the rock in the injection and confining zones.
- A map of any known or suspected faults near the injection zone.
- Geomechanical information for the injection and confining zones.

Office of Water (4606M) - 816-F-10-069 - http://water.epa.gov/type/groundwater/uic/wells_sequestration.cfm - December 2010

latimes.com/nation/nationnow/la-na-nn-ohio-earthquakes-fracking-20140312,0,4938210.story

latimes.com

Injection Wells

Ohio earthquakes rattle up concerns about fracking

By Paresh Dave

10:41 AM PDT, March 12, 2014

A fracking operation at the eastern border of Ohio remained closed Wednesday, two days after a string of earthquakes stirred some people from their sleep and prompted state regulators to investigate whether the shale-drilling may have been a cause.

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Areas in the central and southern U.S. have seen a 20-fold increase in small earthquakes during the past few years, and federal scientists have said the boom in drilling for oil and natural gas has been a contributing factor.

Primarily, part of the dramatic rise has been attributed by the scientists to injection wells, where waste water from fracking is gushed back deep into the earth for storage. The fracking process of firing a mix of water and chemicals at underground rocks -- in hopes of freeing oil and gas stored inside them -- has not been a major cause for earthquakes, according to the U.S. Geological Survey.

But none of the seven wells near the Ohio temblors are for waste disposal, leading local officials and environmentalists to question whether fracking that began last month on one of the wells might have been enough to trigger the human-felt earthquakes.

"The epicenters are right where they are doing the work," Ray Beiersdorfer, a Youngstown State University geology professor whose wife co-founded Frackfree America, told the Los Angeles Times. "There had never been any earthquakes in this county until these wells starting coming in, so it seems suspect."

Hilcorp Energy Co. said one of its 7,900-foot-deep wells at Carbon Limestone Landfill in Poland, Ohio, had already been fracked without incident.

"It is far too early in the process to know exactly what happened, and we are not aware of any evidence to connect our operations to these events," the Houston-based company said in a statement.

The Ohio Department of Natural Resources said Monday that its halt-work order reflected "an abundance of caution." The department "is using all available resources to determine the exact circumstances surrounding this event and will take the appropriate actions necessary to protect public health and safety," it said.

Hilcorp added that it agreed with the agency's rationale and was fully cooperating. The oil and gas industry has held that the link between drilling and earthquakes is weak, noting that tens of thousands of wells have been drilled over several decades without causing any trouble. Industry leaders have urged that strong scientific evidence be shown before any restrictions are imposed.

During the span of about nine hours on Monday, four earthquakes ranging from magnitude 2.23 to magnitude 3.0 were recorded below Hilcorp's drilling site. Another one struck on Tuesday, magnitude 2.1, in the same spot.

Ohio has been in this situation before.

A couple of large earthquakes in 2011 were linked to the opening of a waste-water injection drill in Youngstown, according to seismologists at Columbia University's Lamont-Doherty Earth Observatory. The state ordered the operation and ones close to it shut down indefinitely.

The effects of fracking remain hotly contested. Advocates see it as a reliable source of energy, but critics charge that the injections pollute groundwater supplies. State and federal authorities are keeping a watchful eye as the practice grows.

Among the areas hardest hit by the alleged earthquake side effect since 2009 has been Oklahoma. It's recently surged past Nevada and a dozen other states to become the second most seismically active state in the lower 48, behind only California.

The majority of the activity, which is 40% higher than the average during the past 30 years, "appear to be the result of natural stresses," the Oklahoma Geological Survey said last month. Still, the agency said waste-water drilling was likely a factor for some of the shaking.

Texas, Arkansas and Kansas have seen increases in shaking, too. Some geology experts have suggested that waste water be treated and then reused, avoiding the waste-water injection altogether. But such a reclamation effort would be expensive, according to the drilling companies. Scientists and environmentalists have also called for more monitoring of how much pressure companies use in fracking and storage efforts.

Beiersdorfer, the geology professor, has advocated for keeping wells at least 10 miles away from population centers. But at the least, he wants to see Ohio officials deploy seismographs close to the wells in this case, ensure their integrity and see if cracks have opened up at the landfill.

"To jump ahead with this technique just because they can do it, without proving its safe, is just irresponsible," Beiersdorfer said of what has transpired.

The estimated amount of oil production in Ohio nearly doubled in 2013 from 2012 while natural gas drilling soared nearly 2.5 times, the Ohio Oil & Gas Assn. reported at its winter meeting last week. The organization noted that 580 wells were completed in 2013, a 5% increase from the year earlier. The group hearlded that the natural gas increase, saying energy bills for Ohio residents have plunged.

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Early Warning Signs of Injection-Well Earthquakes Found

By Becky Oskin, Staff Writer | July 11, 2013 02:00pm ET

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Pin it

A drilling rig in North Dakota near the town of Stanley. Fracking is used in this area to tap oil reserves.

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Two new studies of earthquakes near injection wells have seismologists using words rarely heard these days in earthquake science: prediction and warning.

The research has also renewed calls for better seismic monitoring and reporting in regions experiencing man-made earthquakes.

"Shale gas operations have completely changed our energy policy and people are injecting in places they've never injected before. If we're going to do this safely, we need to address the environmental issues, including protecting water supplies and earthquake risk," said Cliff Frohlich, a seismologist at the University of Texas Institute for Geophysics who was not involved in the new studies.

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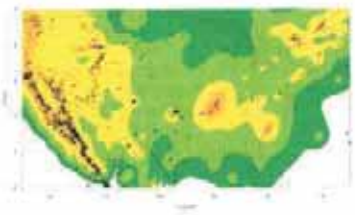
The two reports appear in today's (July 11) issue of the journal Science.

Links between injection and earthquakes

In the Midwest, researchers discovered a warning signal that moderate-sized earthquakes may strike near injection wells, where mining companies dispose of waste fluids. At three sites in Oklahoma, Colorado and Texas, passing seismic waves from faraway earthquakes — the recent massive temblors in Japan, Sumatra and Chile — triggered

swarms of small earthquakes. The seismic activity continued until magnitude-4 and magnitude-5 earthquakes struck, such as the large earthquakes near Prague, Okla., in November 2011. [7 Craziest Ways Japan's Earthquake Affected Earth]

"We've been telling our operators for some time that this is one of the warning signs to look for," said Austin Holland, a seismologist with the Oklahoma Geological Survey who was not involved in the study. "If you see remote triggering of your wells, it's a clear indication that your faults are right at the failure point. It just took a little tickle, if you will, to trigger the earthquakes."



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Earthquakes equal to or bigger than magnitude 3.0 in the United States between 2009 and 2012. The background colors indicating earthquake risk are from the U.S. National Seismic Hazard Map.
Credit: Science/AAAS
View full size image

In a separate study, researchers documented a clear link between earthquakes and production, or removing and injecting underground fluid, at Southern California's Salton Sea Geothermal Field power plant. Every 500 million gallons of water pumped out of the ground caused one detectable earthquake per 11 days, according to the report.

"The thing that best predicted the earthquake rate was the net amount of water extracted from the ground," said Emily Brodsky, lead study author and a seismologist at the University of California, Santa Cruz.

Pin it

A vertical tube evaporator, part of a test desalination project at the Salton Sea Geothermal Field. Credit: Bureau of Reclamation
View full size image

Scientists have long known that geothermal projects can trigger earthquakes, but some communities are wary of the seismic risk. Construction on a geothermal energy plant in Basel, Switzerland, was shut down in 2009 after fluid injection triggered earthquakes up to magnitude 3.4. Brodsky's study offers a new statistical model for predicting how many earthquakes to expect at a geothermal plant, based on the amount of fluid going in and out of the ground.

"This paper has made a very direct and compelling correlation between the net of fluid out and fluid in and the rate at which these small earthquakes are happening," said William Ellsworth, a seismologist at the U.S. Geological Survey's Earthquake Science Center, who was not involved in the study. "This seems like a very promising way of applying this particular statistical model."

Remotely triggered warnings

Many scientists also suspect a link between mining-related wastewater injection wells and a barrage of earthquakes in the central and eastern United States in the past decade. The surge outpaced natural background trends starting in 2001, according to a review by Ellsworth also published today in Science. But proving a cause-and-effect has been difficult for researchers, who lack the evidence for a slam-dunk case. Outside of California, there are few dense seismic networks to precisely locate small earthquakes, and injection well data is not immediately available.

The number of small earthquakes in the central and eastern United States started to rise in 2001. The dashed line corresponds to the long-term rate of 21.2 earthquakes/year.
Credit: Science/AAAS
View full size image

Discovering earthquake warning signals in the Midwest, before the larger, more damaging temblors, was possible only through a temporary, massive seismic monitoring network called the USArray. The explosion in shale gas exploration also helped, because remote triggering is most common in places with high fluid pressure, such as geothermal fields, hot springs and the estimated 100,000 injection wells in the United States. [Top 10 Alternative Energy Bets]

A quick reminder: Fracking itself doesn't cause felt earthquakes. Injecting fluids into the ground (as happens with the wastewater from fracking) spawns man-made earthquakes. The added fluids increase pore pressure on a fault's surface, unclamping the fault and making it easier to slip.

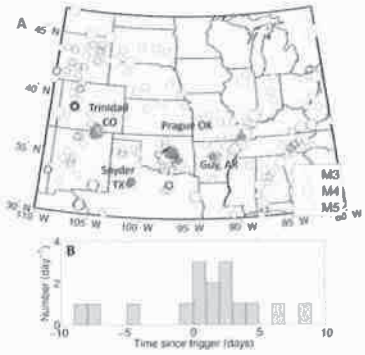
"The fluids are weakening the fault," said Nicholas van der Elst, a seismologist at Columbia University's Lamont Doherty Earth Observatory in New York and lead author of the remote-triggering study. More than 50 years of controlled and unintentional experiments have proved the link.

But even with a better seismic network, remotely triggered earthquakes are of limited use as warning signals. First, not all regions with possible man-made earthquakes also had remotely triggered earthquake swarms. Second, only one earthquake every year, on average, is big enough to send seismic waves rippling across Earth's surface.

"The trouble with using this for forecasting is that the huge earthquakes that are triggering earthquakes are extremely rare," Frohlich said. "We've had three in the last few years, but that's an unusual rate. In the last 50

years, we've only had maybe a dozen earthquakes that big."

The three sites with earthquake "sirens" were Prague, Okla., Synder, Tex., and Trinidad, Colo. Each saw a spike in seismic activity near injection wells within 24 hours of huge earthquakes in Chile in 2010, Japan in 2011 or Sumatra in 2012. The number of quakes increased until a magnitude-4 or magnitude-5 earthquake hit, including Oklahoma's strongest recorded earthquake.



"I think this [study] shows that fluid pressure is really driving these earthquakes," Van der Elst said. "Stress has been increased by the injection of all this fluid in these regions where people have suggested a connection between wells and earthquakes.
"The big implication in this is that remote triggering could act as a stress probe. You could look for remote triggering to anticipate large induced earthquakes," Van der Elst said.

Better seismic monitoring needed

But well operators are already aware that upticks in seismicity near their injection sites are a warning sign that a larger quake could strike, Holland said. Some companies operate their own seismic networks to monitor wells, he added. "The idea of controlling your injection parameters based on the seismicity you're observing has been around for 30 or 40 years," he said.

In his Science review, Ellsworth recommends seismic monitoring of wells to improve understanding of man-made earthquakes and help regulators set seismic activity thresholds that limit injection if there are

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- REVIEW

Injection-Induced Earthquakes

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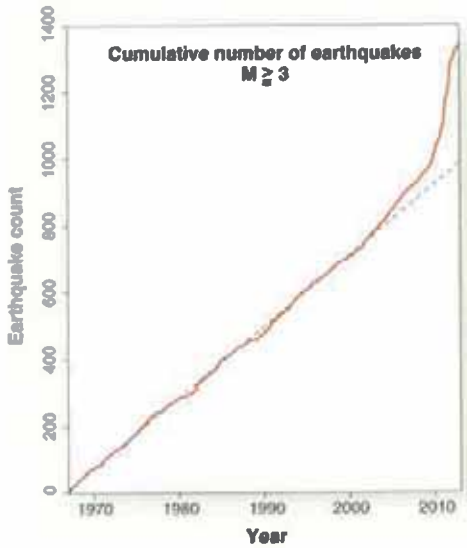
ABSTRACT STRUCTURED ABSTRACT EDITOR'S SUMMARY

Background

Human-induced earthquakes have become an important topic of political and scientific discussion, owing to the concern that these events may be responsible for widespread damage and an overall increase in seismicity. It has long been known that impoundment of reservoirs, surface and underground mining, withdrawal of fluids and gas from the subsurface, and injection of fluids into underground formations are capable of inducing earthquakes. In particular, earthquakes caused by injection have become a focal point, as new drilling and well-completion technologies enable the extraction of oil and gas from previously unproductive formations.



Earthquakes with magnitude (M) ≥ 3 in the U.S. midcontinent, 1967–2012. After decades of a steady earthquake rate (average of 21 events/year), activity increased starting in 2001 and peaked at 188 earthquakes in 2011. Human-induced earthquakes are suspected to be partially responsible for the increase.

Advances

Microearthquakes (that is, those with magnitudes below 2) are routinely produced as part of the hydraulic fracturing (or "fracking") process used to stimulate the production of oil, but the process as currently practiced appears to pose a low risk of inducing destructive earthquakes. More than 100,000 wells have been subjected to fracking in recent years, and the largest induced earthquake was magnitude 3.6, which is too small to pose a serious risk. Yet, wastewater disposal by injection into deep wells poses a higher risk, because this practice can induce larger earthquakes. For example, several of the largest earthquakes in the U.S. midcontinent in 2011 and 2012 may have been triggered by nearby disposal wells. The largest of these was a magnitude 5.6 event in central Oklahoma that destroyed 14 homes and injured two people. The mechanism responsible for inducing these events appears to be the well-understood process of weakening a preexisting fault by elevating the fluid pressure. However, only a small fraction of the more than 30,000 wastewater disposal wells appears to be problematic—typically those that dispose of very large volumes of water and/or communicate pressure perturbations directly into basement faults.

Outlook

Injection-induced earthquakes, such as those that struck in 2011, clearly contribute to the seismic hazard. Quantifying their contribution presents difficult challenges that will require new research into the physics of induced earthquakes and the potential for inducing large-magnitude events. The petroleum industry needs clear requirements for operation, regulators must have a solid scientific basis for those requirements, and the public needs assurance that the regulations are sufficient and are being followed. The current regulatory frameworks for wastewater disposal wells were designed to protect potable water sources from contamination and do not address seismic safety. One consequence is that both the quantity and timeliness of information on injection volumes and pressures reported to regulatory agencies are far from ideal for managing earthquake risk from injection activities. In addition, seismic monitoring capabilities in many of the areas in which wastewater injection activities have increased are not capable of detecting small earthquake activity that may presage larger seismic events.

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A number of implications

Yes, Virginia, There Is Induced Seismicity

By DAVID BROWN, EXPLORER Correspondent

Maybe it will catch on as a new saying:

Induced seismicity happens.

Science is still working to understand how and why earthquakes can be induced by human activity. But scientists studying the phenomenon have no doubt that induced seismicity occurs.

This has a number of implications for the energy industry, including oil and gas exploration.

"Before 1950, induced earthquakes were like extra-sensory perception and little green men. Nobody believed they existed," said Cliff Frohlich, senior research scientist and associate director of the Institute for Geophysics at the University of Texas at Austin.

"Although that's not entirely true," he added, "because when they built the hydroelectric dam by the Grand Canyon, they induced some earthquakes."

Induced seismicity began drawing more attention in the early 1960s. The U.S. Army drilled a 12,000-foot disposal well at its Rocky Mountain Arsenal near Denver and began injecting fluid in 1962.

In the following years, almost 1,500 earthquakes occurred in the area. Most were small, many not even noticeable by the local population, but the largest was a magnitude 5.0 on the Richter scale. It shook both Denver and Boulder.

"By the late 1960s to early 1970s in my business," Frohlich recalled, "it was established that this kind of thing can happen."

Pressure Points

Scientists have recorded numerous surface seismic events related to water injection for geothermal energy projects.

For example, repeated quakes have occurred around The Geysers, the world's largest complex of geothermal plants in an earthquake-prone area north of San Francisco.

Injections at the Hot-Dry-Rock (HDR) enhanced geothermal project at Basel, Switzerland, caused a series of small quakes in late 2006 and early 2007. After a three-year study, the Basel HDR project was cancelled.

"There's been renewed interest in induced earthquakes over the past few years, for practical reasons," Frohlich observed.

He identified three areas of concern:

♦ Geothermal energy. Enhanced geothermal systems incorporate high-pressure water injection.

♦ Unconventional gas. Shale gas development in particular relies on hydraulic fracturing and requires wastewater disposal.

♦ Carbon sequestration. Plans for carbon sequestration include pumping and storing supercritical – liquid – carbon dioxide deep underground.

Most induced seismicity appears to result from activities that alter pore pressure in areas with faults already under stress.

"If you force fluids into it, that 'unlocks' the fault. These fluids can be water or wastewater, or other stuff, but the most common is water," Frohlich said.

"Studies show that most crustal rock is under stress, and if there are little faults there, they can sometimes shift if fluids reach them," he noted.

Other activities can alter the subsurface and lead to measurable quakes. That includes production activity.

"There have been fields where very shallow earthquakes occurred within or near the fields, where people were pumping out liquids instead of injecting them," Frohlich said.

Getting the Fracs Right

The Earth Sciences Division of the U.S. Department of Energy's Lawrence Berkeley National Laboratory has conducted studies into and held workshops about induced seismicity.

Most of the existing research centers on geothermal operations, although Lawrence Berkeley noted "induced seismicity in oil and gas production has been observed since the 1930s."

To date, hydraulic fracturing by the oil and gas industry hasn't resulted in reported surface earthquake events.

Induced seismicity includes shear and tensile seismicity. When induced events have been significant, they've been related to shear failure.

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What's Shaking? Maybe More Than You'd Guess

Besides the recent attention that has been focused on oil and gas, geothermal and potential CO_2 sequestration sites, there are other areas prone to produce induced seismicity.

They include:

♦ Reservoir impoundment (water behind dams).

"Almost all of the significant (recorded activity and in some cases felt activity) is associated with shear failure. These types of earthquakes can be very small or large depending on the geologic environment and available forces to cause an earthquake," according to the DOE's Lawrence Berkeley National Laboratory.

♦ Mining (creating cavities in the subsurface) also cause shear failure along planes of weakness – but that is usually due to relieving stress or subsidence, according to the laboratory.

♦ Tall Buildings.

According to a National Taiwan Normal University study published in the Geophysical Research Letters, the stress from the 508-meter Taipei 101 skyscraper may have reopened an ancient earthquake fault and caused tremors in a previously stable area.

On the other hand, it also has been described as a "pinprick" on the Earth and insignificant on its effect.

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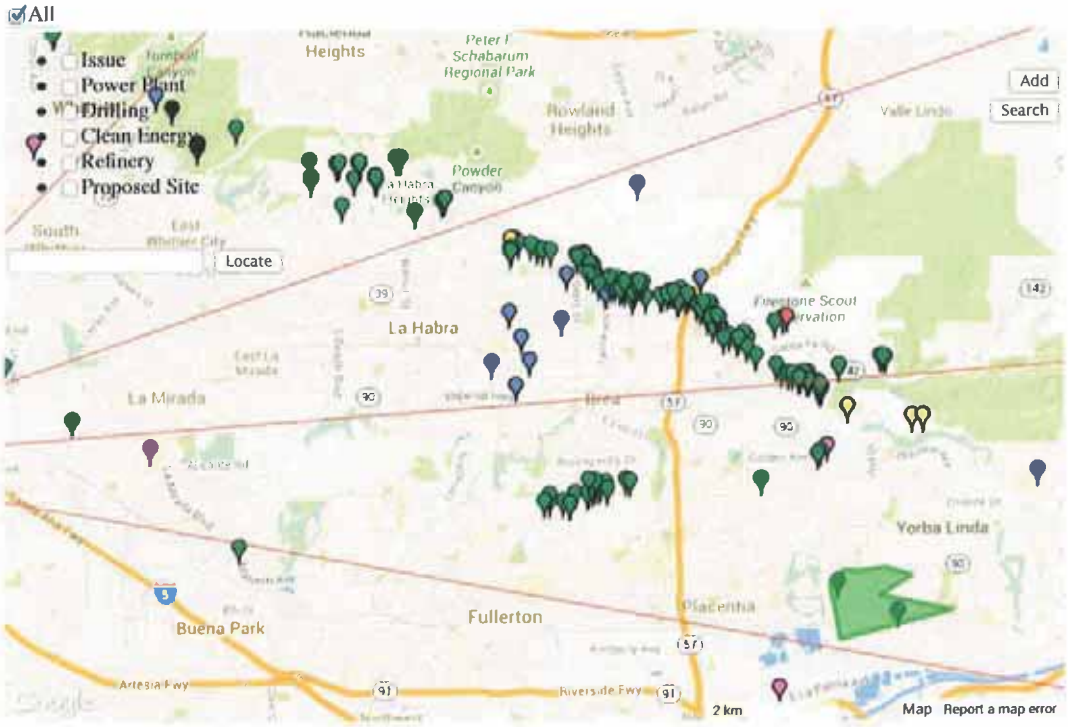

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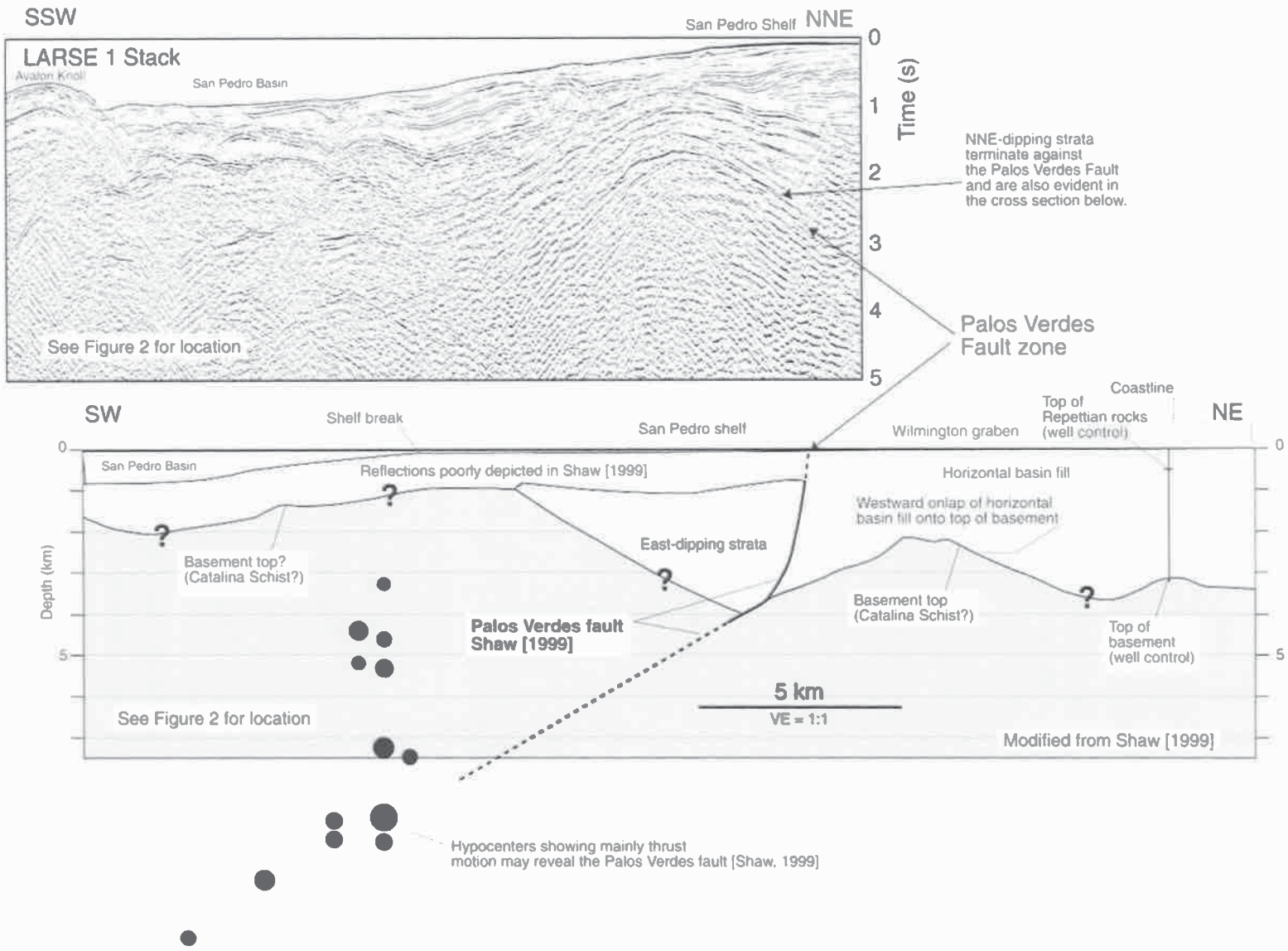

Figure 6. (Top) Stack of LARSE line 1, deep-crustal, seismic-reflection (Brocher *et al.*, 1995) data obtained across the San Pedro shelf and the Palos Verdes fault zone (seismic line location shown in Fig. 2). These data show that the fault zone dips west at large travel times. (Bottom) A simplified view of the composite cross section by Shaw (1999) (location shown in Fig. 3 top), which shows one interpretation of the deep-crustal structure of the Palos Verdes fault zone.

Bulletin of the Seismological Society of America, Vol. 93, No. 5, pp. 1955–1983, October 2003

Geology of the Continental Margin beneath Santa Monica Bay, Southern California, from Seismic-Reflection Data

by Michael A. Fisher, William R. Normark, Robert G. Bohannon, Ray W. Sliter, and Andrew J. Calvert

Abstract We interpret seismic-reflection data, which were collected in Santa Monica Bay using a 70-in^3 generator-injector air gun, to show the geologic structure of the continental shelf and slope and of the deep-water, Santa Monica and San Pedro Basins. The goal of this research is to investigate the earthquake hazard posed to urban areas by offshore faults. These data reveal that northwest of the Palos Verdes Peninsula, the Palos Verdes Fault neither offsets the seafloor nor cuts through an undeformed sediment apron that postdates the last sea level rise. Other evidence indicates that this fault extends northwest beneath the shelf in the deep subsurface. However, other major faults in the study area, such as the Dume and San Pedro Basin Faults, were active recently, as indicated by an arched seafloor and offset shallow sediment. Rocks under the lower continental slope are deformed to differing degrees on opposite sides of Santa Monica Canyon. Northwest of this canyon, the continental slope is underlain by a little-deformed sediment apron; the main structures that deform this apron are two lower-slope anticlines that extend toward Point Dume and are cored by faults showing reverse or thrust separation. Southeast of Santa Monica Canyon, lower-slope rocks are deformed by a complex arrangement of strike-slip, normal, and reverse faults. The San Pedro Escarpment rises abruptly along the southeast side of Santa Monica Canyon. Reverse faults and folds underpinning this escarpment steepen progressively southeastward. Locally they form flower structures and cut downward into basement rocks. These faults merge downward with the San Pedro Basin fault zone, which is nearly vertical and strike slip. The escarpment and its attendant structures diverge from this strike-slip fault zone and extend for 60 km along the margin, separating the continental shelf from the deep-water basins. The deep-water Santa Monica Basin has large extent but is filled with only a thin (less than 1.5-km) section of what are probably post-Miocene rocks and sediment. Extrapolating ages obtained from Ocean Drilling Program site 1015 indicates that this sedimentary cover is Quaternary, possibly no older than 600 ka. Folds and faults along the base of the San Pedro Escarpment began to form during 8–13 ka ago. Refraction-velocity data show that high-velocity rocks, probably the Catalina Schist or Miocene volcanic rocks, underlie the sedimentary section. The San Pedro Basin developed along a strike-slip fault, widens to the southeast, and is deformed by faults having apparent reverse separation and by folds near Redondo Canyon and the Palos Verdes Peninsula.

Introduction

The high population density and active tectonics of the urban Los Angeles region combine to heighten the risk of significant loss from major earthquakes. Recent quakes, notably those at Whittier Narrows (1987, M_L 5.9) and at Northridge (1994, M_W 6.7), underscored the hazard and the economic threat posed by the numerous faults known to crosscut this region. Of late, much research has focused on the location and displacement history of onshore faults (e.g., Legg, 1987; Greene and Kennedy, 1987; Shaw and Suppe, 1996; Shaw and Shearer, 1999; Dolan *et al.*, 2000; Weaver and Dolan, 2000; Tsutsumi *et al.*, 2001). Offshore faults, however, are difficult and expensive to study, so in general, our understanding of them lags greatly. Even so, compilations of southern California seismicity (e.g., Hauksson and Sal-

vidar, 1989; Ziony and Jones, 1989; Goter, 1992; Jennings, 1994; Petersen and Wesnousky, 1994) show that offshore earthquakes can have at least moderate magnitude. Two earthquakes named after the coastal town of Malibu occurred in 1979 (M_L 5.2) and 1989 (M_L 5.0), about 12 km beneath Santa Monica Bay, west of Los Angeles (Fig. 1). The largest earthquake known to have struck the coastal area was the 1933 Long Beach event (M_L 6.4), which occurred along the Newport–Inglewood strike-slip fault. These earthquakes provide some impetus to better understand the hazard posed by offshore faults.

In this report we use marine seismic-reflection data to investigate the offshore geologic structure with the ultimate goals of locating active faults and estimating their displacement histories. Toward these goals, during the years 1998–2000 the U.S. Geological Survey conducted three marine

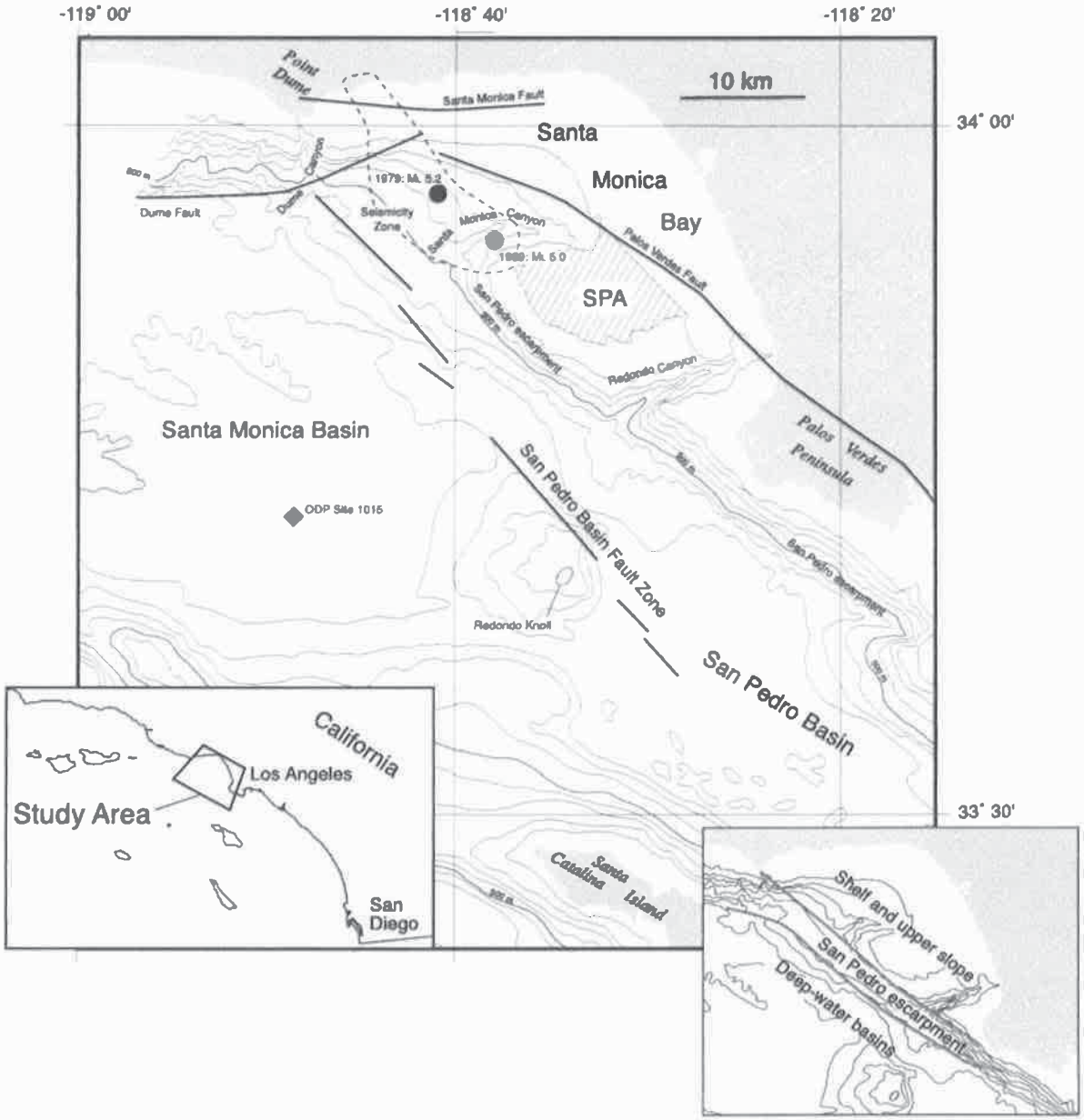

Figure 1. Index map of the study area, showing the main geographic features, the zone of active seismicity under northwestern Santa Monica Bay (dashed outline), epicenters of the Malibu earthquakes, and offshore faults. The cross-hatched area labeled "SPA" shows where sedimentary rocks below shallow flat-lying sediment are folded tightly, making up the shelf projection anticlinorium. Faults adapted from Junger and Wagner (1977), Greene and Kennedy (1987), Wright (1991), and Dolan *et al.* (2000). The left inset figure shows the regional location of the study area. The right inset figure shows how the study area is divided into three belts for discussion.

seismic surveys to collect high- and medium-resolution, seismic-reflection data along parts of the coast between Los Angeles and San Diego. These surveys are a preamble to a more complete effort to study offshore faults, which involves merging findings from seismic-reflection data with age dates from sediment collected during coring operations to characterize shallow deformation along the continental shelf and upper slope.

The study area for this report encompasses the continental shelf under Santa Monica Bay as well as the eastern part of the deep-water Santa Monica and San Pedro Basins to the southwest (Fig. 1). This area is bounded on the north by the Santa Monica Mountains and the active Santa Monica, Dume, and Malibu Coast Faults; on the east by the deep and petroliferous Los Angeles Basin; and on the southeast by the active structural culmination that underlies the Palos Verdes Peninsula.

Geophysical Data

In this report, we use a variety of marine seismic-reflection data to decipher the offshore structure. We rely primarily on medium-resolution, multichannel seismic (MCS) data that were obtained using a 70-in^3 air gun, but also we use high-resolution seismic data collected with small electrical sources. Sparse, deep-crustal seismic-reflection data provide local windows into deep rocks, a complex realm that the lower-powered seismic-reflection systems were unable to penetrate.

Small-air-gun, MCS reflection data were collected during three cruises. Detailed operational reports for the cruises are available online (Normark *et al.*, 1999a,b; Gutmacher *et al.*, 2000). The main MCS streamer was 240 m long and had 24 channels, with 10-m groups and three hydrophones per group. The primary sound source was a dual-chambered (both 35 in^3), generator-injector air gun. In operation, the second chamber fires about 15 msec after the first to minimize bubble oscillations. This air gun was suspended from a float to maintain a constant depth of 1 m, and it was fired every 12 sec with an air pressure of 3000 psi. A backup seismic-reflection system, only occasionally used, included a streamer that was 100 m long and had 24 channels with 6.25-m groups and one phone per group. The alternate sound source was a 40-in^3 Bolt air gun, with a wave-shape kit to reduce bubble oscillations, which was towed at a depth of about 4 m and fired every 6 sec. The nominal air pressure was 2000 psi. All seismic-reflection data are 24-fold and were migrated after stack. Tracklines for data used in this report are shown in Figure 2.

Some high-resolution seismic reflection data were collected with a Huntec deep tow system, which is a boomer on a platform that is towed between 6 and 160 m below the sea surface, depending upon the overall water depth. This seismic system was used to image the upper few tens of milliseconds of strata with a resolution of better than 0.5 msec (<0.4 m assuming water acoustic velocity). The frequency spectrum of the emitted sound peaks between 1.5 and 5 kHz. A surface-towed, Geopulse boomer system was used in the shallow-water, particularly the inshore, parts of the survey area, in water depths from 20 to 300 m. The sound source consists of two Geopulse boomer plates mounted on a catamaran. The effective bandwidth of the Geopulse system is about 750–3500 Hz.

Before each of the three annual surveys, permits had to be obtained to operate seismic sources near the abundant marine-mammal populations off southern California. This approval entailed gaining separate permits from each of the National Marine Fisheries Service, the California Coastal Commission, and the California State Lands Commission. An online report describes the procedures followed (Childs *et al.*, 1999). These permits constrained three aspects of the seismic survey: (1) the size of the acoustic source (it had to be small, less than about 100 in^3), (2) where the source could be used (e.g., farther than 3 miles from shore), and (3) when it could be used (e.g., only during daylight). The prohibition against inshore surveys meant that we could investigate only with low-powered seismic systems some active faults that are of particular concern because of their proximity to urban areas. The restriction to small sound sources greatly limited the maximum depth from which we obtained information, so earthquake source regions that are deeper than about 2 km in the Earth cannot be studied or mapped. We lost much survey time because of the restriction to daylight-only operations, with the result that seismic-reflection data were obtained along only a few of the planned east–west cross lines in the seismic grid (Fig. 2).

In 1994, deep-crustal seismic-reflection data were collected off southern California for the Los Angeles Regional Seismic Experiment (LARSE) (Brocher *et al.*, 1995) (tracklines shown in Fig. 2). These data were the last to be collected by academia off California with a powerful air-gun array before the imposition of strict regulations designed to protect marine mammals. These 40-fold data were collected aboard the R/V *Maurice Ewing* using a source array of 20 air guns with a total chamber volume of 137.7 L (8470 in^3). The digital streamer was 4200 m long and had 160 data channels. Previous reports show data from the LARSE experiment (ten Brink *et al.*, 2000; Fuis *et al.*, 2001).

We present tomographic refraction velocities, from an area of the continental shelf that was determined from data collected along the MCS streamer during the LARSE experiment. When calculating these velocities, we edited seismic data to remove low-quality recording channels and bad shots, and the first arrivals were picked for every shot to within 8 msec. First-arrival travel times for direct, subseafloor-turning, and diffracted waves numbered nearly 167,000, and all were input to an iterative, two-dimensional tomographic inversion algorithm that is based on a finite-difference solution to the eikonal equation (Aldridge and Oldenburg, 1993). The vertical and horizontal spacing of the grid of velocity values was 12.5 m.

Other public-domain, MCS data were obtained by the

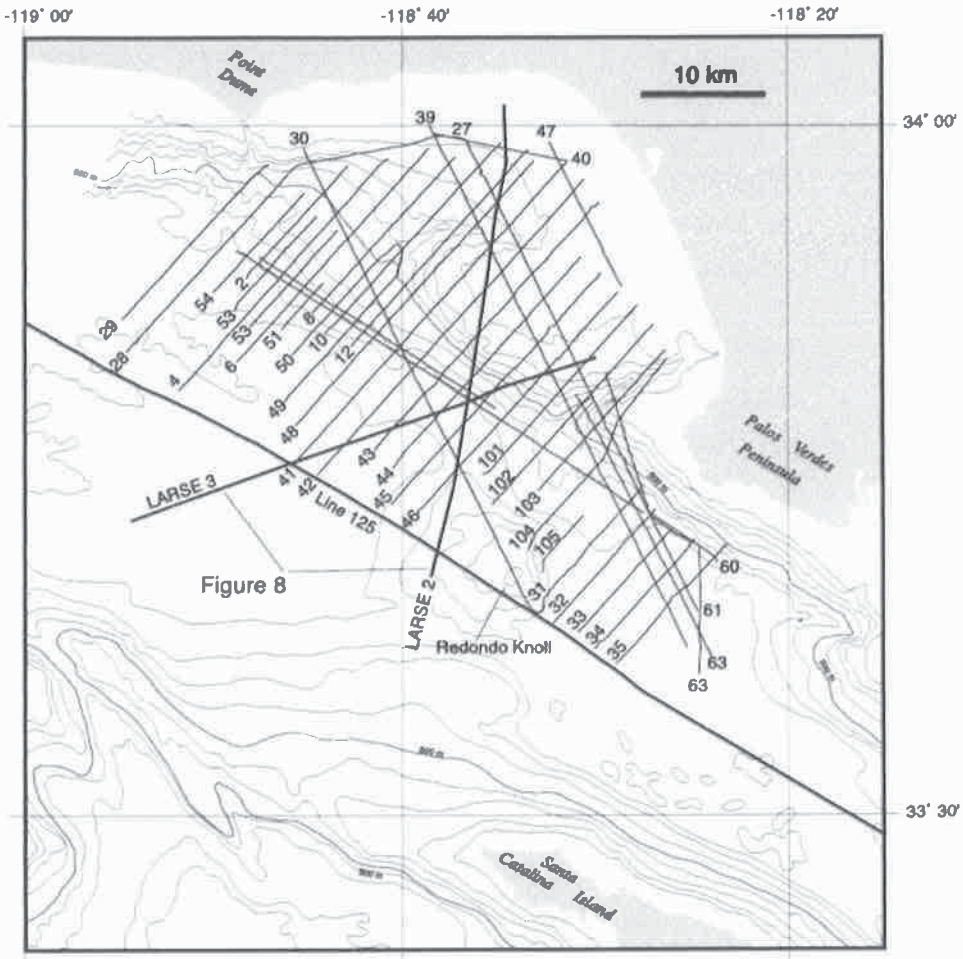

Figure 2. Grid of small-air-gun multichannel seismic (MCS) data (lightweight lines), the main basis for this report, and locations of large-air-gun MCS data collected during the LARSE (lines 2 and 3) and U.S. Geological Survey (line 125) surveys. See text for distinction between small- and large-air-gun data.

U.S. Geological Survey in 1990 (Bohannon *et al.*, 1990). These data are critical to study of the regional geologic framework, and some of these data have been described and interpreted elsewhere (Bohannon and Geist, 1998). Seismic line 125 from this survey transits the deep-water part of our study area (Fig. 2). These data are 22-fold and were collected with a 39.7 L (2424 in^3) air-gun array and a 2600-m-long streamer.

Offshore Stratigraphy and Structure

Early and Middle Miocene Geology

The California Continental Borderland developed during two main phases of late Cenozoic deformation (e.g., Vedder, 1987; Wright, 1991; Crouch and Suppe, 1993; Bohannon and Geist, 1998; ten Brink *et al.*, 2000). The older phase, spanning early and middle Miocene time, involved regional, oblique extension of the borderland region. The second, middle Pliocene and more recent phase involved the north part of the borderland in transpressive deformation. This two-phase deformation produced a complex distribution of compressive, strike-slip, and extensional structures.

Paleomagnetic data have been interpreted to suggest that early and middle Miocene extension occurred in conjunction with the clockwise, vertical-axis rotation of the western Transverse Ranges (Kamerling and Luyendyk, 1979; Luyendyk *et al.*, 1980, 1985; Hornafius *et al.*, 1986). The main geologic structures within these mountains strike west, in contrast to the northwest strike of major geologic structures south of the mountains, within this report's offshore study area. The crust within the study area was greatly attenuated during extension, in the wake of the rotating western Transverse Ranges. Extension progressed to the point that blueschist and amphibolite facies metamorphic rocks, assigned to the Catalina Schist, made up the footwall of the detachment and were uplifted from great depth and exposed at the surface. Evidence from drilling offshore and within the Los Angeles Basin and seismic-reflection data indicate that the Catalina Schist occurs within a wide belt below the

inner part of the borderland, where it directly underlies Miocene and younger, sedimentary, volcaniclastic and volcanic rocks. This schist constitutes the basement complex beneath the study area (e.g., Vedder, 1987; Wright, 1991; Bohannon and Geist, 1998; ten Brink *et al.*, 2000).

Widespread volcanism associated with the crustal extension commenced during the early Miocene and culminated during the middle Miocene (Weigand *et al.*, 1998). Rapid uplift and erosion resulted in clasts of Catalina Schist being deposited in the Miocene San Onofre breccia (Stuart, 1979). As the heat-flow anomaly caused by the crustal extension dissipated, the region subsided. The volcanic rocks and breccia are succeeded stratigraphically by widespread, middle and late Miocene chert and shale that make up the Monterey Formation (e.g., Woodring *et al.*, 1946; Barron and Isaacs, 2001).

Early Pliocene and Quaternary Geology

The present, transpressional tectonic regime of the Southern California Borderland dates back to the early or middle Pliocene, about 6 Ma ago (Atwater, 1970, 1998; Wright, 1991; Crouch and Suppe, 1993). The transition from extension to transpression, of fundamental importance to the development of the northern part of the borderland, was caused by a shift in plate-boundary motion from offshore eastward to the southern San Andreas Fault. This transition in stress regime activated pre-existing, favorably oriented structures so that a northwest–southeast, compressional and strike-slip structural grain developed within margin rocks (Wright, 1991; Dolan *et al.*, 1995; Shaw and Suppe, 1996; Schneider *et al.*, 1996; Walls *et al.*, 1998; Shaw and Shearer, 1999). A possible consequence of the shift in direction of regional compression is that some middle Miocene extensional faults were reactivated as thrust and strike-slip faults. Also blind thrust faults and fault-propagation folds may have formed beneath the densely populated Los Angeles region to constitute one of the chief earthquake threats (e.g., Davis *et al.*, 1989; Davis and Namson, 1994a,b; Shaw and Suppe, 1996).

The north boundary of the study area lies along the Santa Monica, Dume, and Malibu Coast Faults as well as the deep and blind Santa Monica Mountains thrust fault (Fig. 1). These faults and structures share the west strike of the western Transverse Ranges. Collectively these faults border the offshore area where the Catalina Schist belt is at relatively shallow depth beneath Neogene rocks. The blind, Santa Monica Mountains thrust fault (originally called the Elysian Park thrust [Davis and Namson, 1994a]) is interpreted to lie at depth below the Malibu Coastal and Dume Faults (Davis *et al.*, 1989; Davis and Namson, 1994a,b; Dolan *et al.*, 1995; Sorlien, 1999; Dolan *et al.*, 2000). This blind thrust fault probably developed originally as an extensional detachment that accommodated the Miocene, clockwise rotation of the western Transverse Ranges (Crouch and Suppe, 1993; Dolan *et al.*, 1995; Sorlien, 1999). During the Miocene extension, this fault appears to have been among the most tectonically active features in the region (Crouch and Suppe, 1993; Bohannon and Geist, 1998).

Northeast of the study area near the city of Los Angeles, the Santa Monica Fault strikes parallel to and crops out 3–4 km southeast of the range front of the Santa Monica Mountains (Dolan *et al.*, 2000). This fault crosses the shoreline and continues through rocks beneath northern Santa Monica Bay (Fig. 1). Dolan *et al.* (2000) summarized the offshore position of this fault from previous work based on marine seismic-reflection data. In an alternative view of offshore faulting, Junger and Wagner (1977) proposed that beneath Santa Monica Bay, the Santa Monica Fault forks into the partly onshore Malibu Coast Fault and the more southeasterly and entirely offshore Dume Fault. Both of these faults extend far to the west, to beneath the Santa Barbara Channel and through the northern Channel Islands (Sorlien, 1999).

Along the eastern boundary of the study area, the Palos Verdes Hills stand prominently above the otherwise low-lying coastal plain. The Palos Verdes Fault passes northwest of these hills, sharing the regional northwest strike of most major structures south of the Transverse Ranges (Woodring *et al.*, 1946; Yerkes *et al.*, 1965; Greene and Kennedy, 1987; Wright, 1991).

The fundamental structural style of major faults in the Los Angeles region is currently being debated. Some researchers, for example, hypothesize that only limited strike-slip offset occurs along major faults; instead the structural style is thought to be controlled by thrust or reverse movement along blind faults (e.g., Davis *et al.*, 1989; Davis and Namson, 1994a,b; Shaw and Suppe, 1996). Other geologists, however, emphasize the importance of strike- or oblique-slip offset (e.g., Nardin and Henyey, 1978; Wright, 1991; McNeilan *et al.*, 1996; Francis *et al.*, 1996; Legg *et al.*, 2001). According to this view, the main offshore geologic structures formed while convergent dextral shear occurred along the important faults; some deformation resulted from movement within restraining and releasing bends along strike-slip faults.

The Palos Verdes Fault apparently extends for more than 100 km southwestward from the northern part of Santa Monica Bay (Greene and Kennedy, 1987). This fault passes below the northwest part of the Palos Verdes Peninsula and beneath San Pedro Harbor (Woodring *et al.*, 1946; Yerkes *et al.*, 1965; Clarke *et al.*, 1983, 1985; Stephenson *et al.*, 1995; McNeilan *et al.*, 1996). Wave-cut terraces show that the peninsula has undergone rapid Quaternary and Holocene uplift. The vertical strain rate appears to be around 3 mm/yr, based on analysis of wave-cut terraces and offset stream courses (Ward and Velensisie, 1994). Multibeam bathymetric data collected southeast of the Palos Verdes Peninsula have been interpreted to show the Palos Verdes Fault extending for about 60 km below the shelf, slope, and deep-water areas (Marlow *et al.*, 2000).

The geometry of the Palos Verdes Fault at depth has been variously interpreted from oil industry seismic-reflection data. For example, Davis and Namson (2002) de-

picted this fault zone with a steep southwest dip (about 60°) in the upper 5 km of the crust. Similarly, Shaw (1999) indicated that the Palos Verdes fault zone is steep to vertical in the upper 5 km of the crust, but below this depth, this fault is indicated with a dip of about 30° southwest. Shaw and Suppe (1996) tied movement along the Palos Verdes fault zone to deeper movement along the Compton thrust fault, which is proposed as a blind, northeast-dipping fault. In contrast to these interpretations that involve mainly thrust movement along the Palos Verdes Fault, Wright (1991) indicated that movement along this fault is mainly strike slip, and this fault is vertical or steeply east dipping (Junger and Wagner, 1977; Nardin and Henyey, 1978), at least for depths shallower than about 9 km.

Nardin and Henyey (1978) proposed that deformation of strata below the coast and outer shelf is concentrated in five main zones that they referred to as anticlinoria. The shelf projection anticlinorium (cross-hatched area labeled "SPA" in Fig. 1) deforms rocks south of Santa Monica Canyon. Formation of anticlinoria is attributed to convergent dextral shear along the Palos Verdes Fault.

Present Setting

The shallow Santa Monica shelf and adjacent continental slope are deeply incised by three submarine canyons, which are, from northwest to southeast, the Dume, Santa Monica, and Redondo Canyons (Fig. 1). Underlying geologic structures may control the courses these canyons follow; some authors, for example, have suggested that Redondo Canyon marks the location of Redondo Canyon thrust fault (Nardin and Henyey, 1978; Wright, 1991).

A narrow continental shelf extends eastward from Point Dume around Santa Monica Bay to near the head of Santa Monica Canyon. In addition, a lobate area of shallow water over a nearly horizontal seafloor (SPA in Fig. 1) borders Santa Monica Canyon on the south. Complexly deformed rocks that make up the shelf projection anticlinorium (Nardin and Henyey, 1978) underlie this part of the shelf. Together these shallow areas enclose a part of the continental slope, under northeastern Santa Monica Bay, that deepens gradually southwest. The low-angle continental slope northwest of Santa Monica Canyon gives way abruptly across the canyon to the San Pedro Escarpment, and farther southeast lie the high-relief Palos Verdes Hills (Fig. 1). The escarpment is a relatively steep section of the continental margin, having an average slope of about 10°. The escarpment continues to the southeast, outside the study area.

Seismic-reflection and wide-angle-seismic data indicate that under Santa Monica Bay, a subsurface basement ridge made up of Catalina Schist extends northwest–southeast beneath the continental shelf and slope (Wright, 1991; ten Brink *et al.*, 2000). This ridge is a fundamental feature of the offshore area because it separates the onshore Los Angeles sedimentary basin from deep-water basins of the California Continental Borderland. Thin (0.5–1 km) Neogene and Quaternary sedimentary rocks cover the basement ridge (Wright, 1991). On seismic sections these rocks appear to thicken sharply off crest, northeastward into the Los Angeles Basin and southwestward in the deep-water Santa Monica and San Pedro Basins. Under the continental shelf within the study area, the contact between sedimentary rocks and the underlying Catalina Schist forms the acoustic basement in our seismic-reflection data (e.g., Vedder, 1987). Elsewhere, the acoustic basement could include the schist and Miocene volcanic rocks and breccia.

Drilling at Ocean Drilling Program (ODP) site 1015, located in the southwestern Santa Monica Basin (Fig. 1), where the sediment cover over metamorphic basement is thin, provides the main age constraint on sedimentary rocks within the deep-water Santa Monica Basin. The drill penetrated Quaternary turbidites at 150 m depth that are no older than 60 ka (Shipboard Scientific Party, 1997; Normark *et al.*, 1998). The deep-water San Pedro and Santa Monica Basins are separated from each other by the Redondo Knoll (Fig. 1), which is underlain by Miocene volcanic and volcaniclastic rocks that are covered by a veneer of sediment (Vedder, 1990). In the San Pedro Basin, rocks of post-Miocene age are thickest (about 2 km) southwest of the Palos Verdes Peninsula (Vedder, 1987; Teng and Gorsline, 1989). Such rocks in the Santa Monica Basin are about 2.5 km thick west of the study area, between Point Dume and Santa Cruz Island. Within the study area, post-Miocene basin rocks are only about 1 km thick.

An Offshore Seismic Zone

Within the area encompassed by Figure 1, the two largest offshore earthquakes, the Malibu events ($\sim M_L$ 5), fall within a cluster of smaller-magnitude earthquakes that stretches from the northwest end of the San Pedro Escarpment northwestward to near Point Dume (dashed outline in Fig. 1) (Hauksson and Saldivar, 1986, 1989). The Malibu earthquakes nucleated at a depth of about 10 km, so this seismicity does not correlate directly with the shallow faults and folds that are evident in seismic reflection data shown here. Even so, such structures might provide clues to help understand deeper structures that do control earthquake distribution, in particular the extent and continuity of deep features.

Observations from MCS Data

Structure under the Continental Shelf and Upper Slope

For the sake of discussion, we subdivide the continental margin under and west of Santa Monica Bay into three, southeast-trending belts (see map inset on lower right of Fig. 1; the main structures in each belt are shown in Fig. 3). The first belt encompasses the continental shelf and upper slope that lies east of a line drawn along the San Pedro Escarpment and extended to Point Dume. The second belt consists of the San Pedro Escarpment and related northwest-trending structures that mark the juncture between the

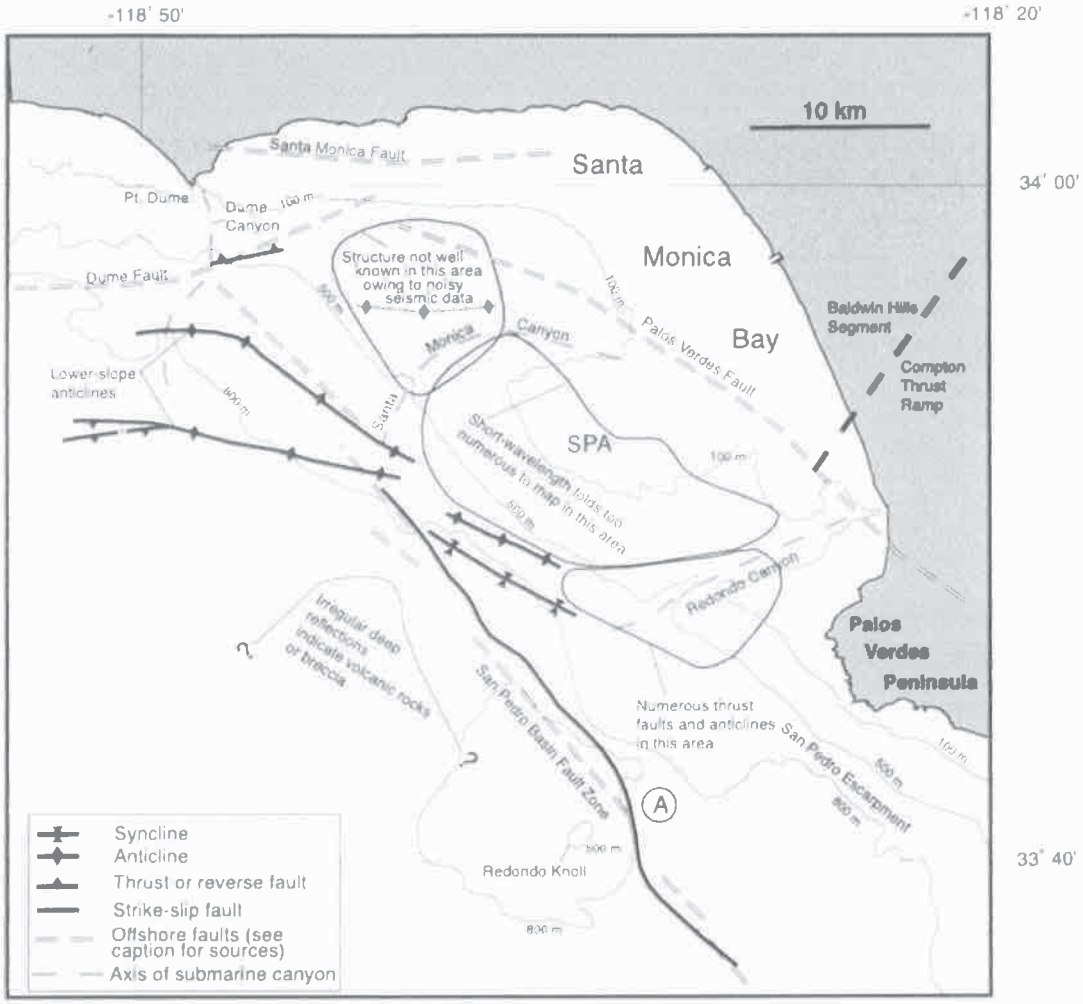

Figure 3. Main structural features interpreted from seismic-reflection data and discussed in the text. The heavy dashed line shown near the Palos Verdes Peninsula is the boundary between the most active part of the Compton thrust ramp and the less active part of the ramp, called the Baldwin Hills segment (Shaw and Suppe, 1996). Faults adapted from Junger and Wagner (1977), Greene and Kennedy (1987), Wright (1991), and Dolan *et al.* (2000). Other structures are from data in this report. SPA, shelf projection anticlinorium.

continental slope and the low-relief seafloor over the deep-water San Pedro and Santa Monica Basins. These two deep-water basins constitute the third belt.

The narrow continental shelf that rims the north side of the study area is cut by the west-striking Dume and Santa Monica Faults (Fig. 3), two major, strike-slips faults that are related to the deformation that formed the Transverse Ranges (e.g., Junger and Wagner, 1977; Wright, 1991; Dolan *et al.*, 2000). Where crossed obliquely in the offshore by seismic line 28 (Figs. 4 and 5), the Dume Fault shows reverse separation, and it deforms the overlying sedimentary section into an anticline. Unfortunately, the oblique crossing of this fault obscures the fault offset in the shallow sedimentary section. The anticline, however, deforms rocks and sediment directly under the seafloor, and the seafloor steepens over this fold (Fig. 5). At the time resolution of these seismic-reflection data, continuous reflections from the shallow sediment section span unbroken across this fault's location.

The continental shelf under Santa Monica Bay is underlain by a basement ridge made up of Catalina Schist, and this ridge is covered by sedimentary rocks possibly as old as middle Miocene (Wright, 1991). Large-air-gun, seismic-reflection data collected along LARSE line 2 (location shown in Fig. 2) show that the upper section of these cover rocks dips and thickens northeastward toward the Santa Monica Mountains (see also ten Brink *et al.*, 2000) (Fig. 6a). The most prominent reflections near the north end of LARSE line 2 are from the base of this sedimentary section, and the reflections have an apparent dip toward the mountains (Fig. 6a).

Wide-angle velocity data from along LARSE line 2 (ten Brink *et al.*, 2000) indicate that under the continental shelf

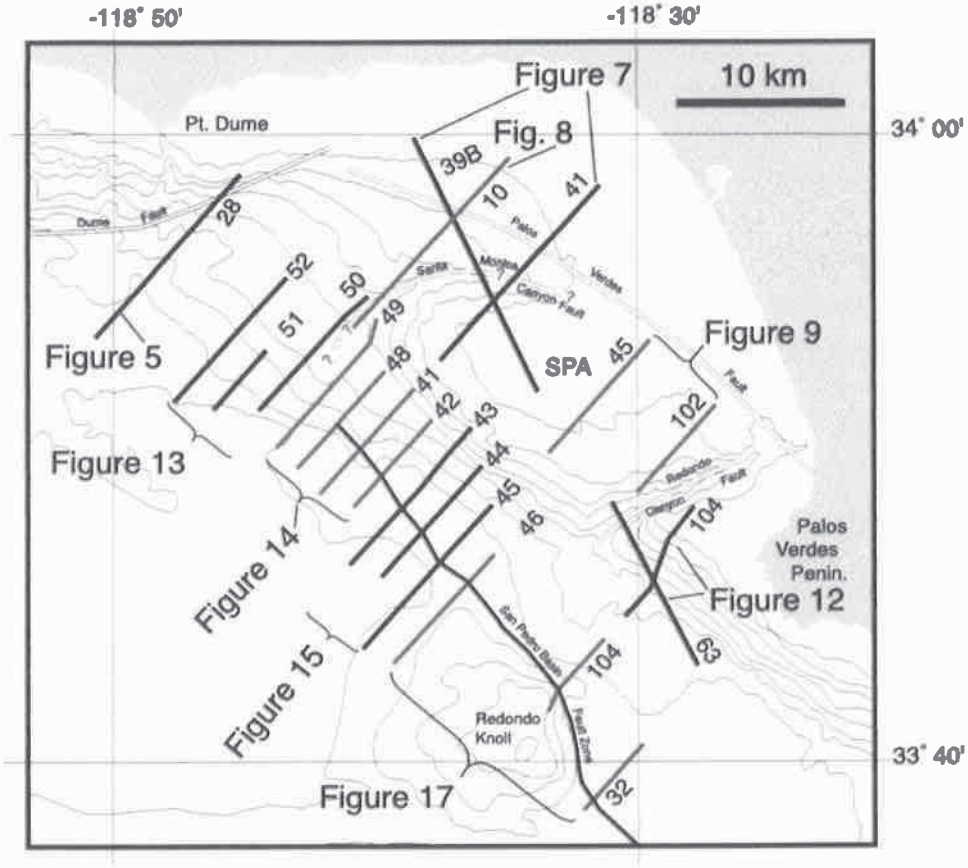

Figure 4. Locations of seismic-reflection sections shown as figures in this report. Figure 2 shows the location of large-air-gun sections in Figure 6. Black and gray lines are used to help distinguish in which figure a seismic reflection section appears. SPA, shelf projection anticlinorium.

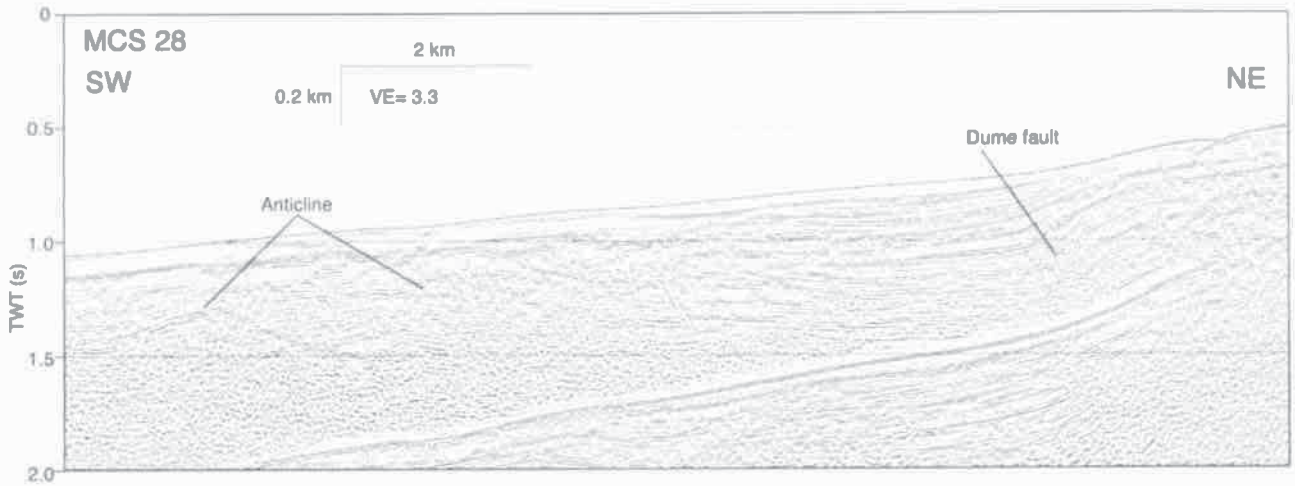

Figure 5. Poststack-migrated MCS section, location shown in Figure 4, showing the Dume Fault and one of the lower-slope anticlines. This fault arches the seafloor and shallow sediment, which attests to recent fault movement.

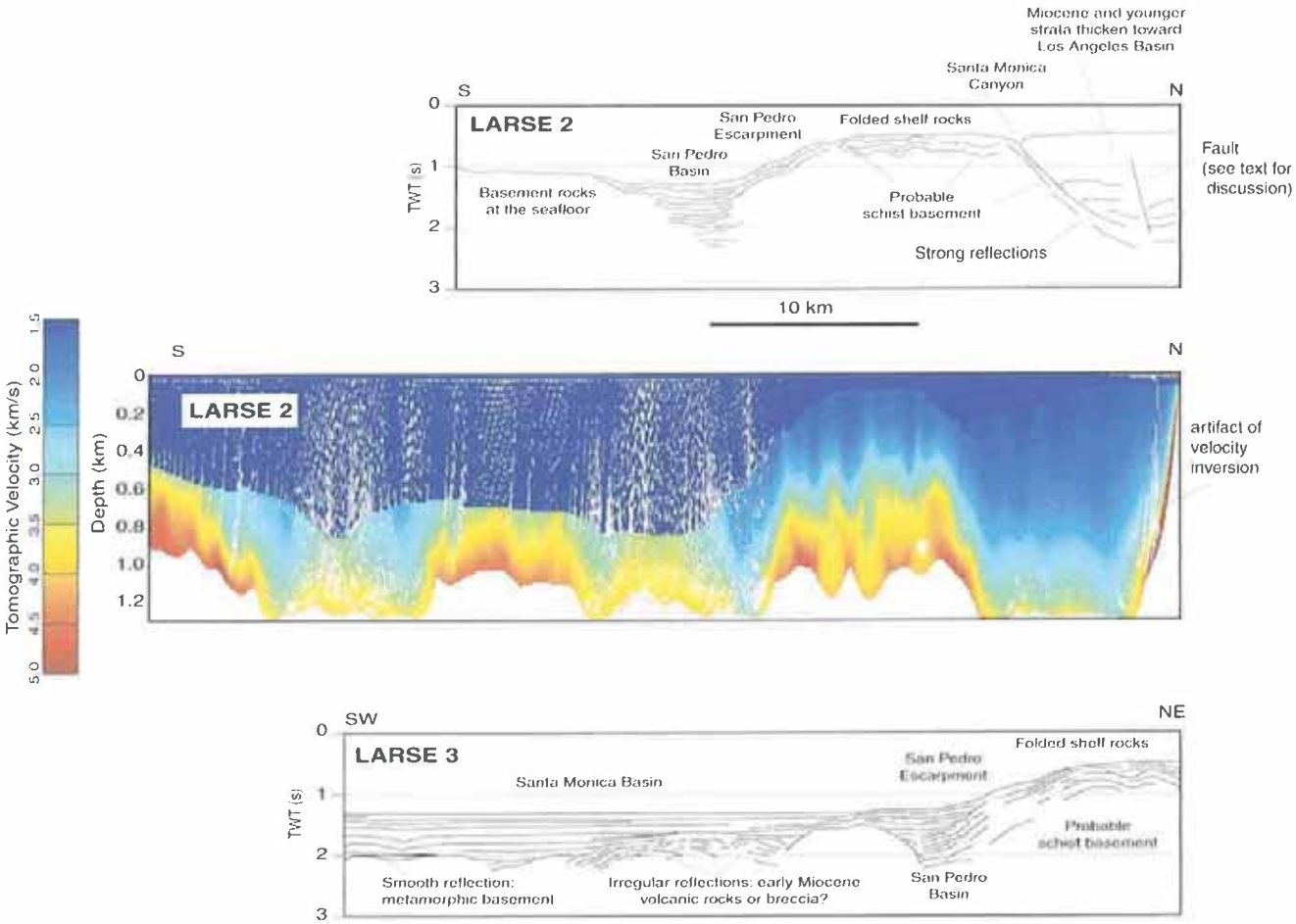

Figure 6. Line drawings of seismic-reflection data collected along LARSE lines 2 and 3. Line locations shown in Figure 2. These data show that small-air-gun data reveal the depth to volcanic rocks or metamorphic basement under the continental shelf almost as well as do the large-air-gun data. The basement contact is at shallower depth south of Santa Monica Canyon than to the north across the canyon. Tomographic velocities from section LARSE 2 show that crystalline basement is at shallow depth below the shelf.

near the north end of this line, rocks having a seismic velocity between 4 and 5 km/sec are at depths as shallow as 1 km. A similar result derives from tomographic analysis of first arrivals recorded along the seismic streamer (Fig. 6b). This analysis establishes that refraction velocities measured in rocks 900 m below the seafloor are about 4.8 km/sec. The velocities reported in ten Brink *et al.* (2000) and the accordant result shown here reveal that either volcanic rocks or schist basement rocks underlie the strongly reflective, north-dipping horizon and nearly crop out along the axis of Santa Monica Canyon. Volcanic rocks or schist is probably at shallow depth beneath the shelf area south of Santa Monica Canyon; this area includes the shelf projection anticlinorium (SPA in Fig. 1). From our velocity analysis, refraction velocities in the rock section that overlies basement vary from about 3.5 km/sec at the base to 1.9 km/sec in the upper part.

LARSE line 2 crosses the extrapolated offshore location of the Palos Verdes Fault just northeast of Santa Monica Canyon, and this seismic section does show a fault that cuts rocks close to shore. This fault might correlate with the Palos Verdes Fault, as proposed by ten Brink *et al.* (2000), but the fault revealed by the seismic section lies within the zone of west-striking faults that are related to the development of the Transverse Ranges. This fault might instead be the Santa Monica or a related fault (Fig. 1).

Two small-air-gun sections (numbered 39B and 41 in Fig. 7) intersect in northeastern Santa Monica Bay and show geology that is similar to that evident on LARSE line 2. In both sections, the location of Santa Monica Canyon coincides with the seafloor outcrop of apparently north-dipping rocks that return strong, continuous reflections. These rocks could be Miocene volcanic rocks or metamorphic basement. Where rock-velocity data are absent, the north-dipping reflection might cap strongly folded sedimentary rocks.

A structure that may play an important role in the offshore geology lies just northwest of Santa Monica Canyon,

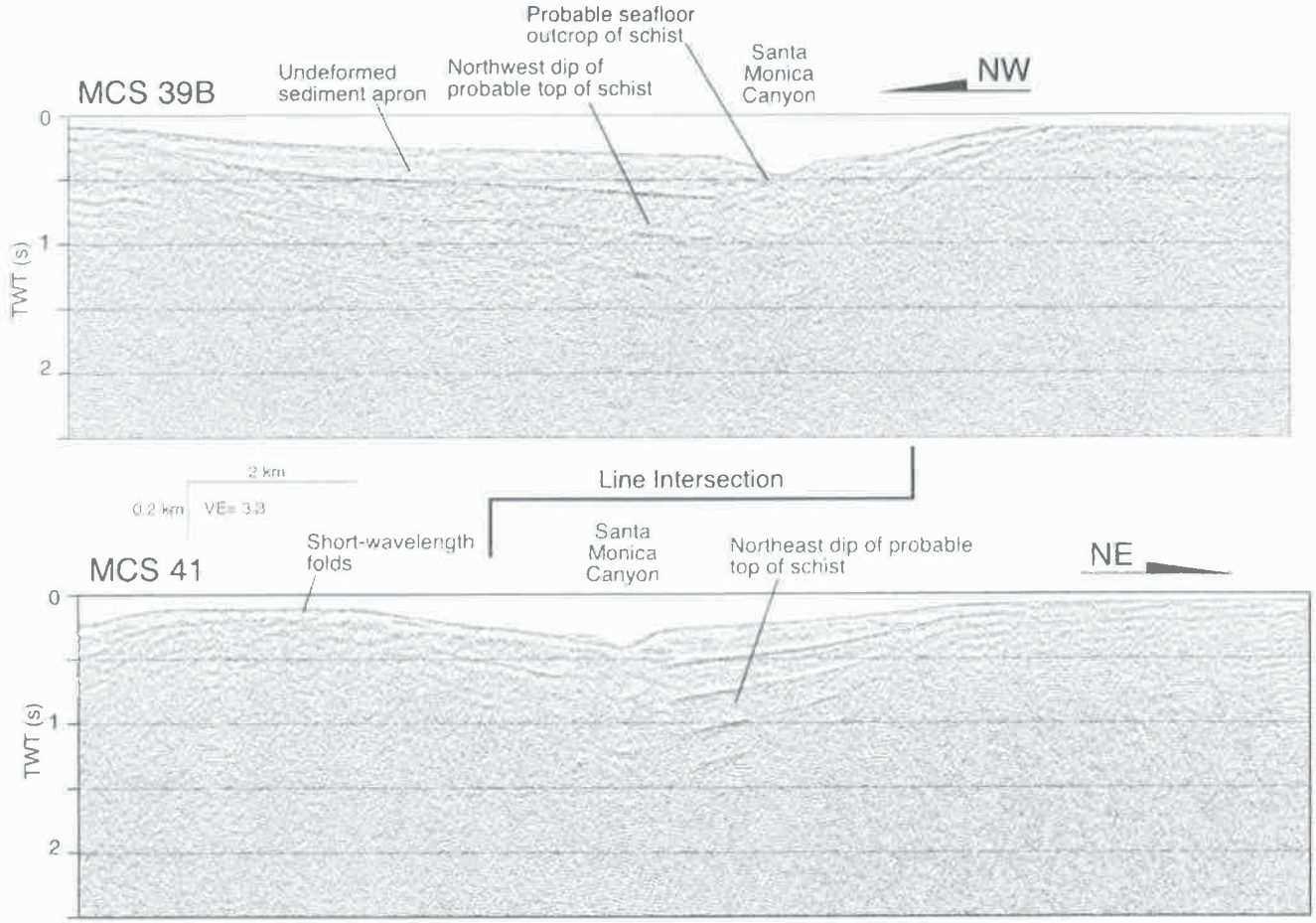

Figure 7. Poststack-migrated MCS sections collected in the northeast part of Santa Monica Bay. Section locations shown in Figure 4. Northwest and northeast-dipping reflections indicate the top of acoustic basement. Rocks that cause these reflections appear to crop out along the wall of Santa Monica Canyon. No obvious reflections or disrupted reflections indicate the location of the Palos Verdes Fault.

where an anticline (Figs. 3 and 8) has the west strike of faults that make up the Santa Monica Mountains instead of the predominant northwest strike of structures to the south. (We note that seismic-reflection line 10 [Fig. 8] is among a group of lines plagued by a high noise level that originated in the recording system. The northern gray area in Fig. 3 shows the part of the margin where the geology is difficult to discern through such noise.) This anticline folds complicated stratigraphic units associated with Santa Monica Canyon (Fig. 8), so the fold's history of development is difficult to decipher, but this fold's strike is well established, on the basis of the number and location of seismic-reflection lines available to us (Fig. 2).

The west-striking anticline (Fig. 8) underlies a sector of the continental margin where an embayment of the continental slope extends eastward and is bounded on the south-southeast by Santa Monica Canyon (see bathymetry in Fig. 1). Seismic-reflection data show that at least the upper part of the sediment apron underlying this slope has undergone little recent deformation (Fig. 8).

This low degree of deformation contrasts greatly with the tight folding of rocks under the shelf south of Santa Monica Canyon. This folding affects rocks within the shelf projection anticlinorium (Nardin and Henyey, 1978), and the folding extends eastward nearly to the location of the Palos Verdes Fault. Typically within the area outlined in Figure 3, rocks are deformed into numerous short-wavelength (>500 m) folds that are truncated at the seafloor. Individual folds cannot be correlated between seismic-reflection sections to obtain axial trends, but this folding style underlies most of the continental shelf between the Santa Monica and Redondo Canyons.

Another contrast in the geology on opposite sides of the Santa Monica Canyon involves the depth to the metamorphic basement. In general, north of this canyon, basement is below the reach of our small-air-gun system, except in the northeast corner of Santa Monica Bay, where dipping basement reflections were recorded (Fig. 7). In contrast, south of this canyon, basement is at shallow depth, less than 1 km (see also ten Brink *et al.*, 2000). Large-air-gun MCS data

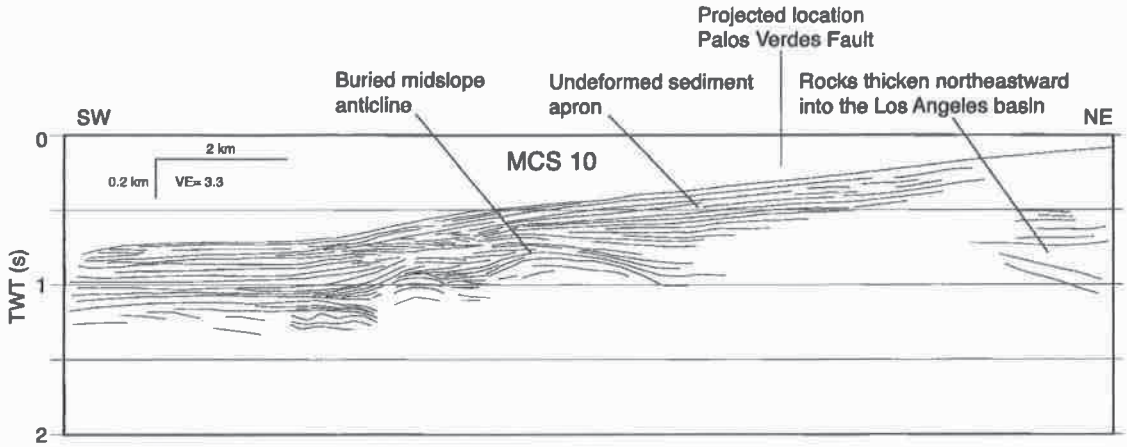

Figure 8. Line drawing interpreted from poststack-migrated MCS section 10. The location is shown in Figure 4, showing the undeformed sediment apron that extends across the projected location of the Palos Verdes fault. The indicated midslope anticline strikes nearly west and is located about 10 km northeast of the northwest-striking anticlines under the lower slope (Fig. 3).

collected for LARSE (line 2, Fig. 6a) do not show reflections from below the basement reflection that is also evident in small-air-gun data.

An important point is that none of our seismic-reflection sections, like those in Figures 6, 7, and 8, reveal features that point unequivocally to the location of the Palos Verdes Fault. Seismic-reflection section 39B (Fig. 7) reveals a shallow, undeformed sediment apron across the projected location of the Palos Verdes Fault, as does seismic line 10 (Fig. 8). This absence of near-surface fault expression in geophysical data contrasts with the situation southeast of the Palos Verdes Peninsula. Seismic and multibeam bathymetric data collected in the southeastern area have been interpreted to suggest that the Palos Verdes Fault can be followed across the shelf and slope (Fischer *et al.*, 1987; Greene and Kennedy, 1987; Marlow *et al.*, 2000).

Near the Palos Verdes Peninsula, none of the small-air-gun lines actually crosses the Palos Verdes Fault because the State of California effectively prohibits surveying with an air gun any closer than 3 miles from shore. However small-air-gun seismic lines that cross the continental shelf show that the wavelength of shallow folds increases irregularly eastward across the shelf toward the projected location of the Palos Verdes Fault. Short-wavelength folding ends in the northeast about 2 km from the fault's proposed location. Seismic-reflection section 45 (Fig. 9) reveals that within 2 km of the fault's projected location, strata are deformed into a broad, open fold. Similarly, MCS line 102 (Fig. 9) shows that the short-wavelength folding underlies but does not disturb a thick section of channel fill. Dating the oldest units of this fill would put an upper limit on the age of folding that affected an extensive area of the continental shelf. In any case, this folding ends south of the projected location of the Palos Verdes.

We collected Geopulse seismic-reflection across the projected location of the Palos Verdes Fault (Fig. 10). The Geopulse system uses high-frequency sound, so it reveals only features within the upper few meters of sediment. With these limitations, we would only be able to identify very recent fault movement. The Geopulse section located in the southeastern corner of the study area, adjacent to the Palos Verdes Peninsula (line 602, Figs. 10, 11), shows the flank of Redondo Canyon and the flat continental shelf. The high topography near this canyon head impedes the analysis of offshore structural features; even so, the seafloor is not offset near the projected location of the Palos Verdes Fault. The next Geopulse line to the northwest (line 101, Fig. 11) reveals locally complicated stratigraphy (in the middle of the section, just below 0.1 sec) that might be related to fault movement. However an unconformity overlying the complicated stratigraphy is not offset or deformed, neither is the seafloor. This unconformity is undated, but we speculate that it was cut during the last glacial maximum, and so it dates from about 12 ka ago. If the underlying, complicated stratigraphy results from movement along the Palos Verdes Fault, then an important goal of future studies will be to date the unconformity to constrain the time of youngest fault movement.

Neither Geopulse section 43 nor 45 (Fig. 11) shows any offset of the seafloor along the projected strike of the Palos Verdes Fault. Both sections include poor data and reveal only discontinuous reflections from south-dipping strata, but these data are good enough to rule out the presence of measurable, vertical separation along a fault. Geopulse section 41 (Fig. 11) reveals mainly little-disturbed strata at the projected location of the Palos Verdes Fault, which would be located under the slope that leads downward into Santa Monica Canyon.

The Redondo Canyon Fault has been proposed (e.g., Nardin and Henyey, 1978; Wright, 1991) to follow Redondo

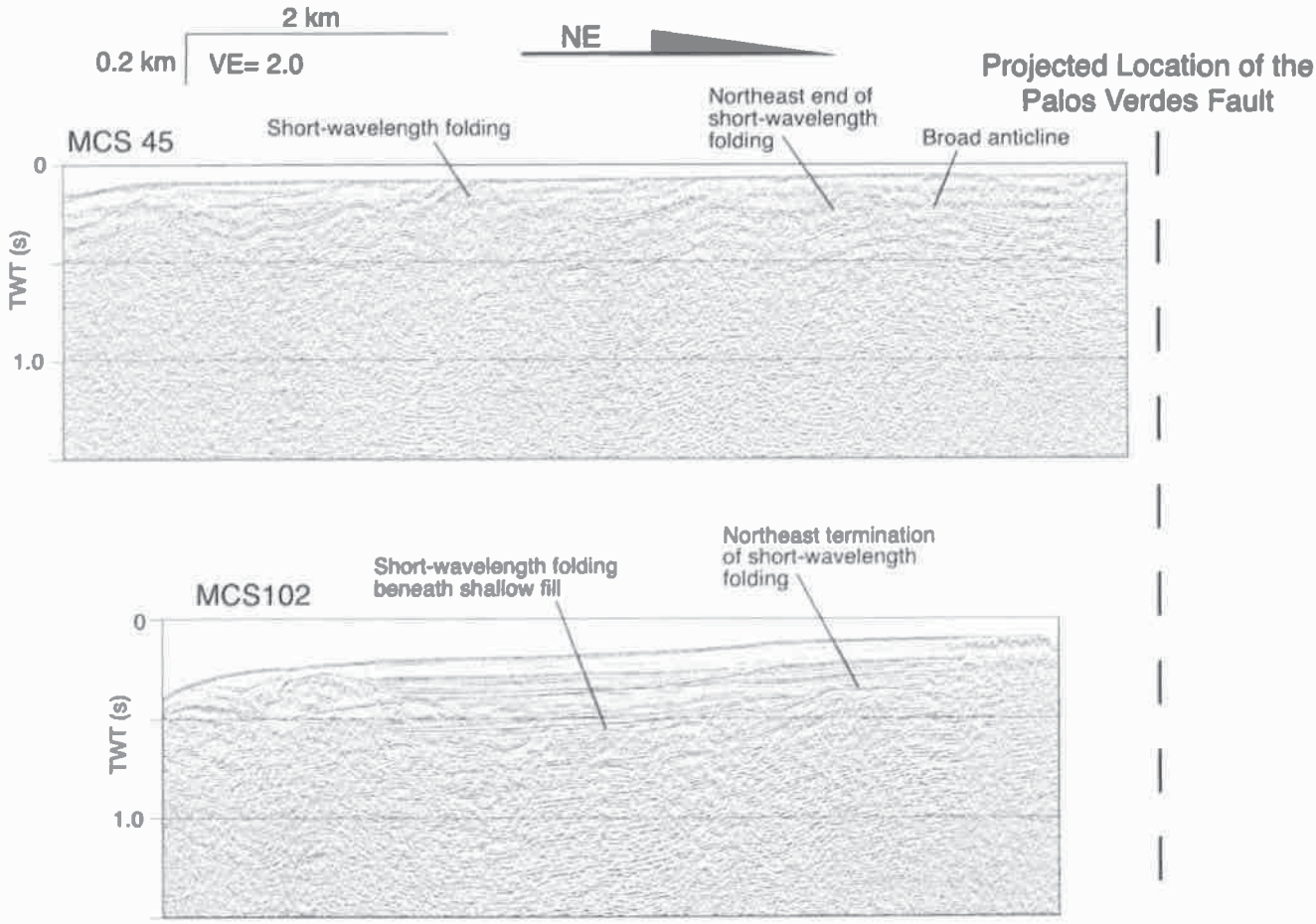

Figure 9. Poststack-migrated MCS sections collected in southeastern Santa Monica Basin. Section locations are shown in Figure 4. These two seismic sections nearly cross the Palos Verdes Fault near shore. They show the geologic structure near this fault, in particular the short-wavelength folding that affects shelf rocks over a broad area south of Santa Monica Canyon. Geopulse data collected across the projected fault location, from previous studies, are shown in Figure 11.

Canyon southwestward across the continental shelf (Fig. 3). Seismic-reflection sections across this proposed fault (Fig. 12) do not show clear reflections from a low-angle fault plane, and the short streamer used to record seismic-reflection data used here would not detect reflections from a steeply dipping fault.

Strata in what would be this fault's upper plate, along the south side of Redondo Canyon, are deformed by faults and short-wavelength folds that are similar in appearance to the folds under the shelf to the north. This complicated deformation probably masks the presence of a fault.

Structure Related to the San Pedro Escarpment

The San Pedro Escarpment marks an important geologic boundary between the basement ridge under Santa Monica Bay and the deep-water (500 m) Santa Monica and San Pedro Basins (Figs. 1 and 10). As we use the term here, the "San Pedro Escarpment" refers to the seafloor declivity that extends southeastward from Santa Monica Canyon to the area southeast of the Palos Verdes Peninsula. Thus the escarpment extends for nearly 60 km along the southern California margin and attains its sharpest expression, nearly 700 m of relief with a 10° seafloor slope, adjacent to the Palos Verdes Peninsula. Beneath the escarpment, sedimentary rocks of probable Quaternary age (Greene and Kennedy, 1987; Vedder, 1990) dip and thicken to the southwest, into the deep-water basins. Along much of the escarpment's length in the study area, active folds and faults cut the seafloor and mark the escarpment's foot (Fig. 3).

At Santa Monica Canyon, the San Pedro Escarpment hooks to the north and east and merges with the steep southeast canyon wall (Fig. 1). This abrupt turn forms a prominent bathymetric nose that marks the northwest termination of the shelf projection anticlinorium. Two lower-slope anticlines having seafloor expression continue along the escarpment's general northwest strike toward Point Dume (Fig. 3). A shaded-relief image of the seafloor derived from multibeam bathymetric data (Fig. 10) (Gardner and Dartnell, 2002)

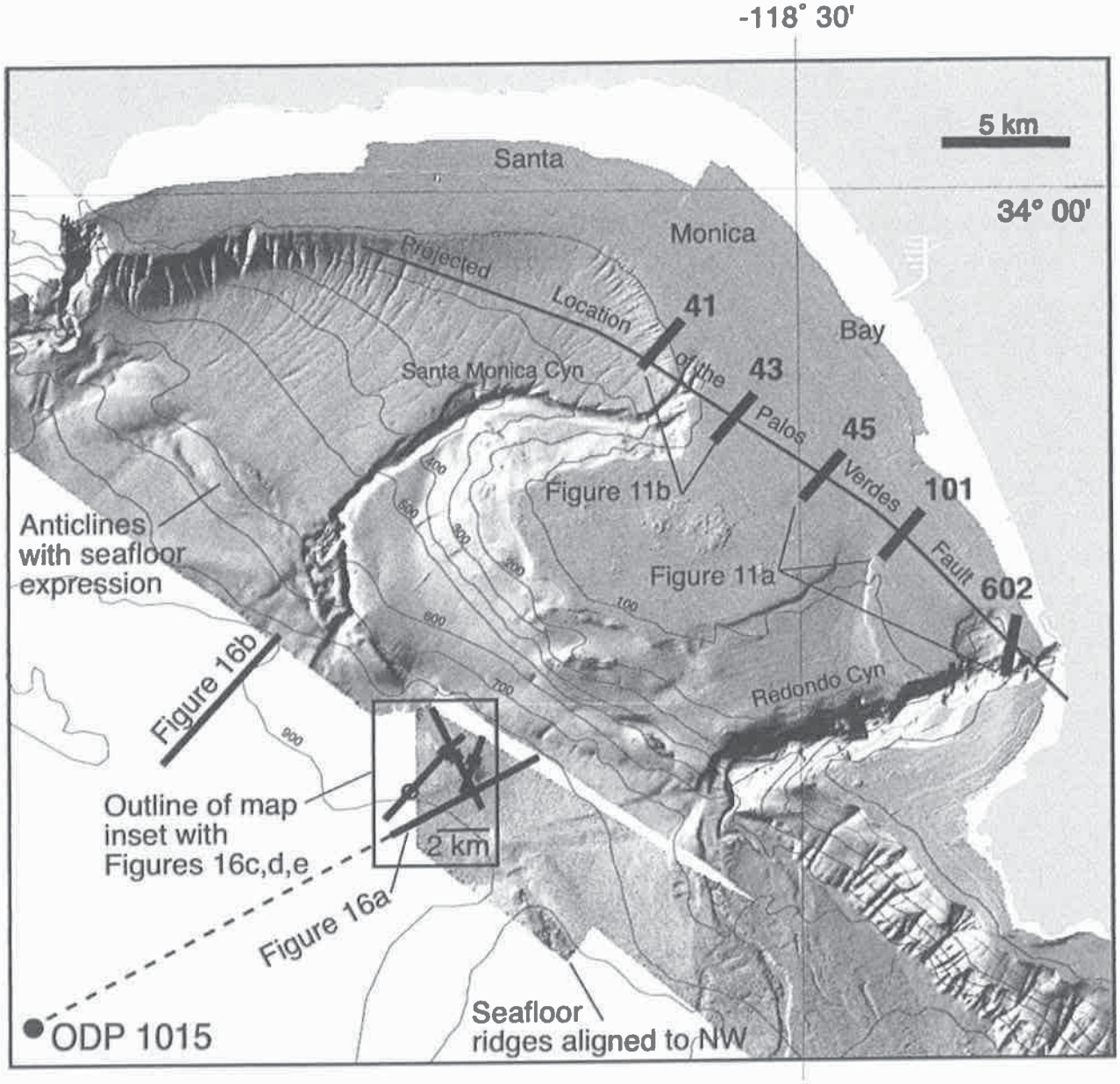

Figure 10. Location map for Geopulse and Huntec deep-tow boomer sections shown in Figures 11, 15, and 16. The dashed line shows the southwest extension of the profile segment of Figure 16a to indicate the direct tie to ODP site 1015. Shaded relief map of offshore area is made from multibeam bathymetric data that are viewed from directly overhead and illuminated from the northwest (Gardner and Dartnell, 2002). Anticlines evident in seafloor relief in the northwest part of the area are shown in cross section in seismic sections 51 and 52 (Fig. 13). Seafloor ridges cross the basin plain in the southeast part of the study area and are shown in cross section in Figure 16.

shows these anticlines and a southeastward jog in the Santa Monica Canyon that is probably structurally controlled.

Structures marking the base of the continental slope and the San Pedro Escarpment change markedly in style where Santa Monica Canyon crosses the escarpment. For this reason we divide the lower slope into two sectors: one extends southeastward from Point Dume to the canyon, and the second spans from this canyon to the Palos Verdes Peninsula.

In the first sector, seismic-reflection section 52 (Fig. 13) reveals two lower-slope anticlines that have clear seafloor expression. The northeast flank of the upslope anticline is cut by a fault showing reverse separation. These subparallel anticlines are continuous along the lower slope from near Point Dume to Santa Monica Canyon (Fig. 3).

The downslope anticline (Fig. 13, line 52) begins in the northwest as two or more thrust faults that deform shallow

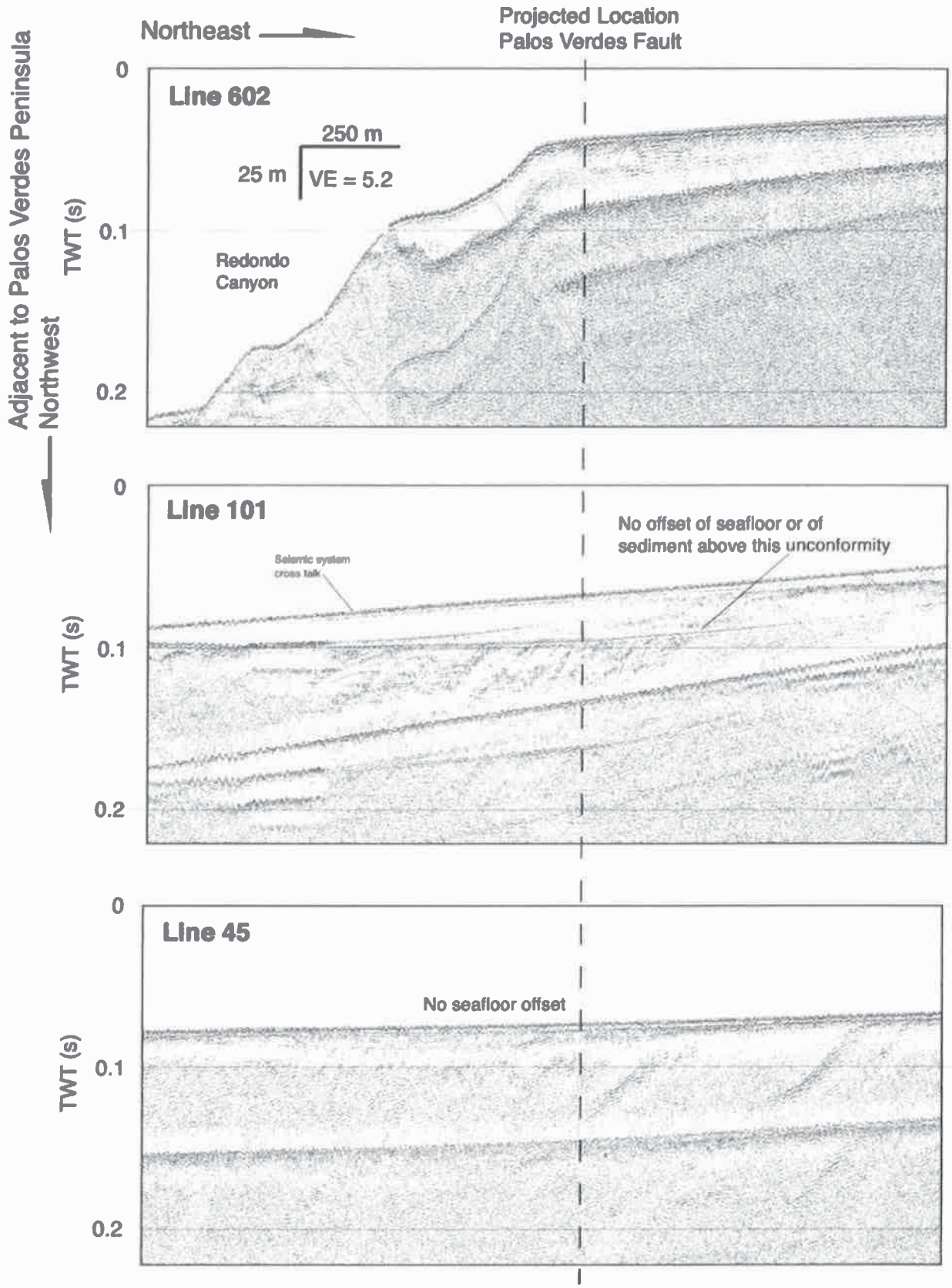

Figure 11. Caption on facing page.

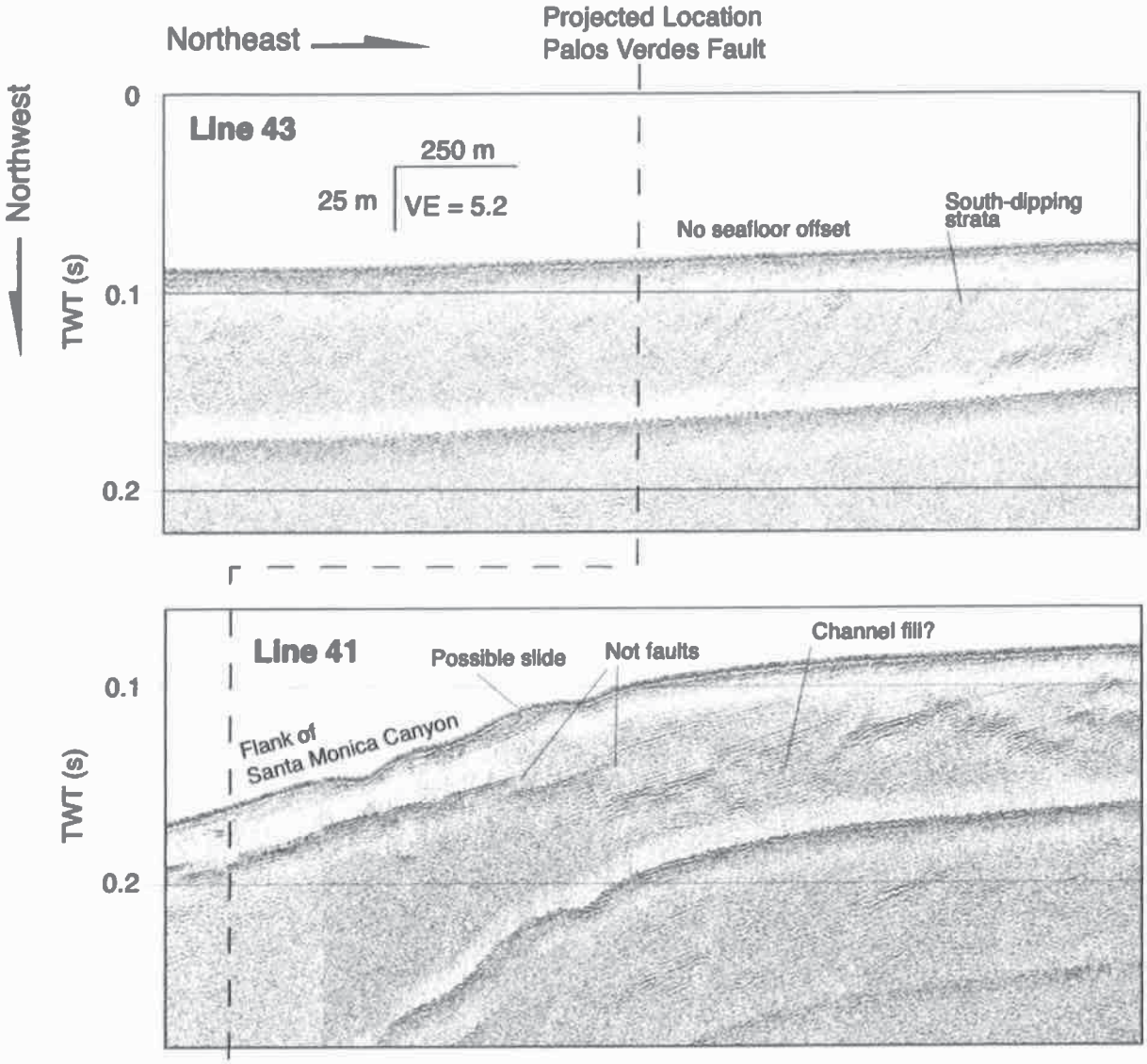

Figure 11. Geopulse seismic data collected over the projected location of the Palos Verdes Fault. Features on section 41 labeled "Not faults" instead show the effects of gain changes during seismic acquisition. Section locations are shown in Figure 10.

rocks in the Santa Monica Basin (Fig. 3). Southeastward along strike, these faults coalesce and the downslope anticline gains structural relief over a short distance. The two lower-slope anticlines are then coextensive for more than 20 km along the foot of the continental slope. The anticlines attain their greatest structural relief, about 200 m, below seismic lines 51 and 52 (Fig. 13).

The two lower-slope anticlines were active recently, as shown by their seafloor expression along almost the entire length of both folds, by the shallow basin fill that thins into the fold limbs, and by the concordant folding of all but the shallowest fill. The structural asymmetry, particularly of the northeastern fold evident in MCS line 52 (Fig. 13), reveals a northeastward structural vergence.

Rapid growth of these anticlines is suggested by the truncated reflections, near the anticlinal crest (Fig. 13, inset detail 1 of line 51), that underlie continuous reflections from arched strata. Both truncated and arched reflections are folded to nearly equal degrees. We interpret this reflection sequence to mean that during early fold growth, sediment near the fold crest became unstable and was shed into the basin, leaving the truncated reflectors, but overlying strata was deposited over the truncated reflectors and then arched without failure. Seismic-reflection section 52 (Fig. 13) shows that recent structural growth has been vigorous enough that some of the sediment has been shed from near the fold's crest.

Toward Santa Monica Canyon, the two lower-slope anticlines converge and diminish in structural relief (Figs. 3 and 13). Near the mouth of this canyon the anticlines are

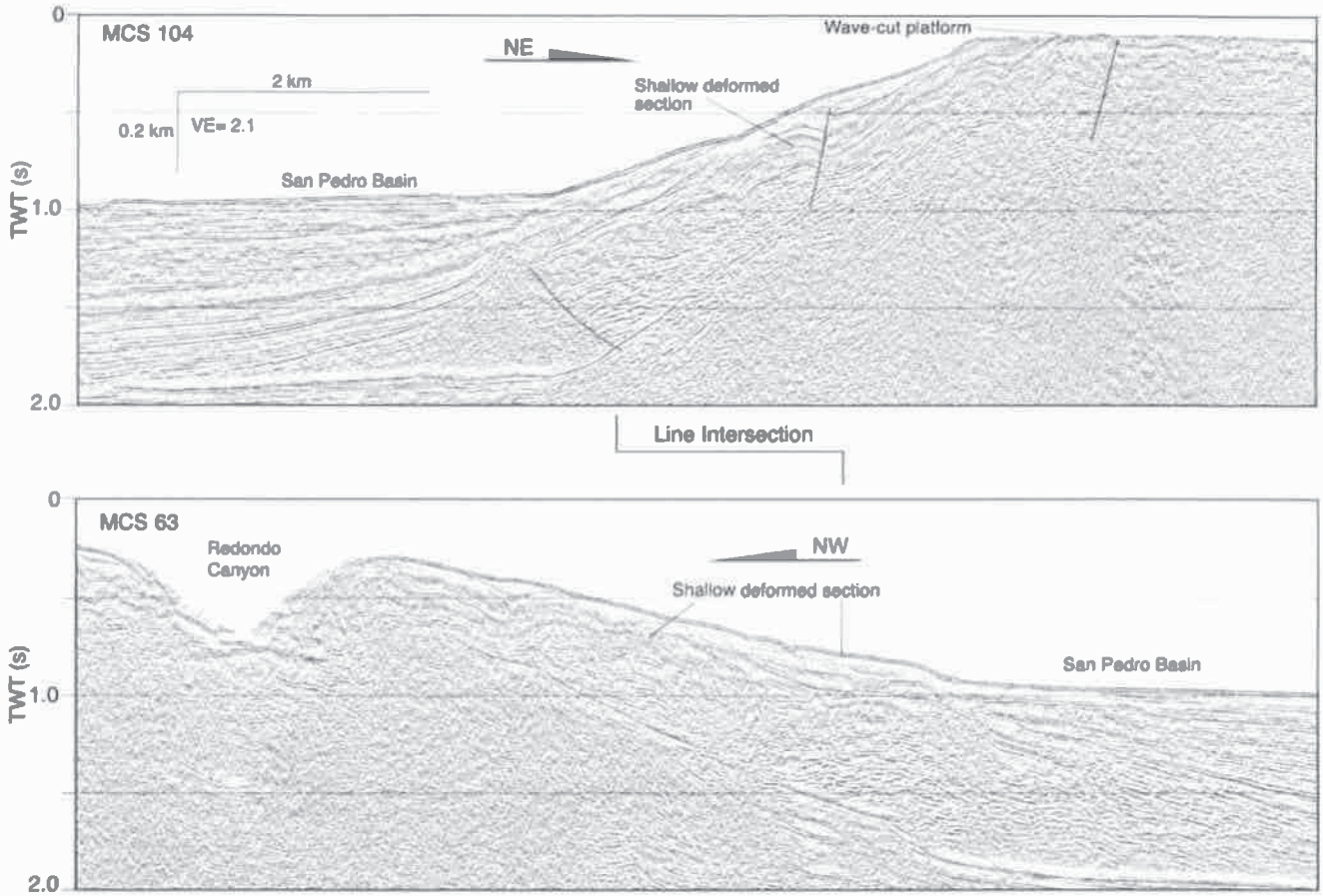

Figure 12. Poststack-migrated MCS sections, which cross the upper plate of the proposed Redondo Canyon Fault. Section locations are shown in Figure 4.

replaced to the southeast by the steep San Pedro Escarpment and its underpinning structures.

The second sector of the escarpment stretches southeastward from Santa Monica Canyon to near the Palos Verdes Peninsula. Faults and folds deform rocks under the escarpment, and some faults extend upward nearly to the seafloor, indicating recent deformation (Fig. 14). The lower-slope anticlines deform Pleistocene sediment that makes up much of the Santa Monica fan. A fault offsets the strong reflector (labeled "AB" [acoustic basement] in Fig. 14) at the base of the sedimentary section near the northeast ends of seismic-reflection sections 48 and 41. The strong reflector dips southwest under the escarpment, and because of the high refraction velocities measured along the LARSE MCS streamer, this reflector is probably the top of metamorphic basement or of Miocene volcanic rocks.

Faulting intensifies southeastward for about 10 km along the San Pedro Escarpment, as illustrated by the group of reflections labeled "a" in seismic-reflection sections on Figure 14. In section 49 (Fig. 14, top), the "a" reflections are broadly folded above a fault showing reverse separation. These reflections dip progressively steeper to the southeast (compare sections 49 and 48 in Fig. 14). In section 41, the main fault has accrued marked (about 30-m) seafloor expression (section 41; Fig. 14).

This structural relief decreases sharply southeastward. In section 42 (Fig. 14, bottom) faulting has reduced intensity, the main faults are nearly vertical and form a simple flower structure, and the seafloor expression of the fault zone has dwindled to a small high. The shaded-relief image of the seafloor derived from multibeam bathymetric data (Fig. 10) shows that small seafloor highs, like the one just described, fall along a northwest-trending lineament that marks the location of the San Pedro Basin fault zone (Fig. 3). The lineament extends northwest nearly to intersect with the Santa Monica Canyon.

The nearly vertical fault on section 42 (Fig. 14) is the San Pedro Basin fault zone, which is thought to be an oblique slip fault. We discuss this fault in more detail later, in the section concerning the Santa Monica and San Pedro Basins. We also note that the intensity of folding under the San Pedro Escarpment decreases southeastward to where seismic lines 43 and 44 (Fig. 15) cross the escarpment. In general, structures deforming lower-slope and basin rocks spread out and lose relief or were more rapidly buried to the southeast.

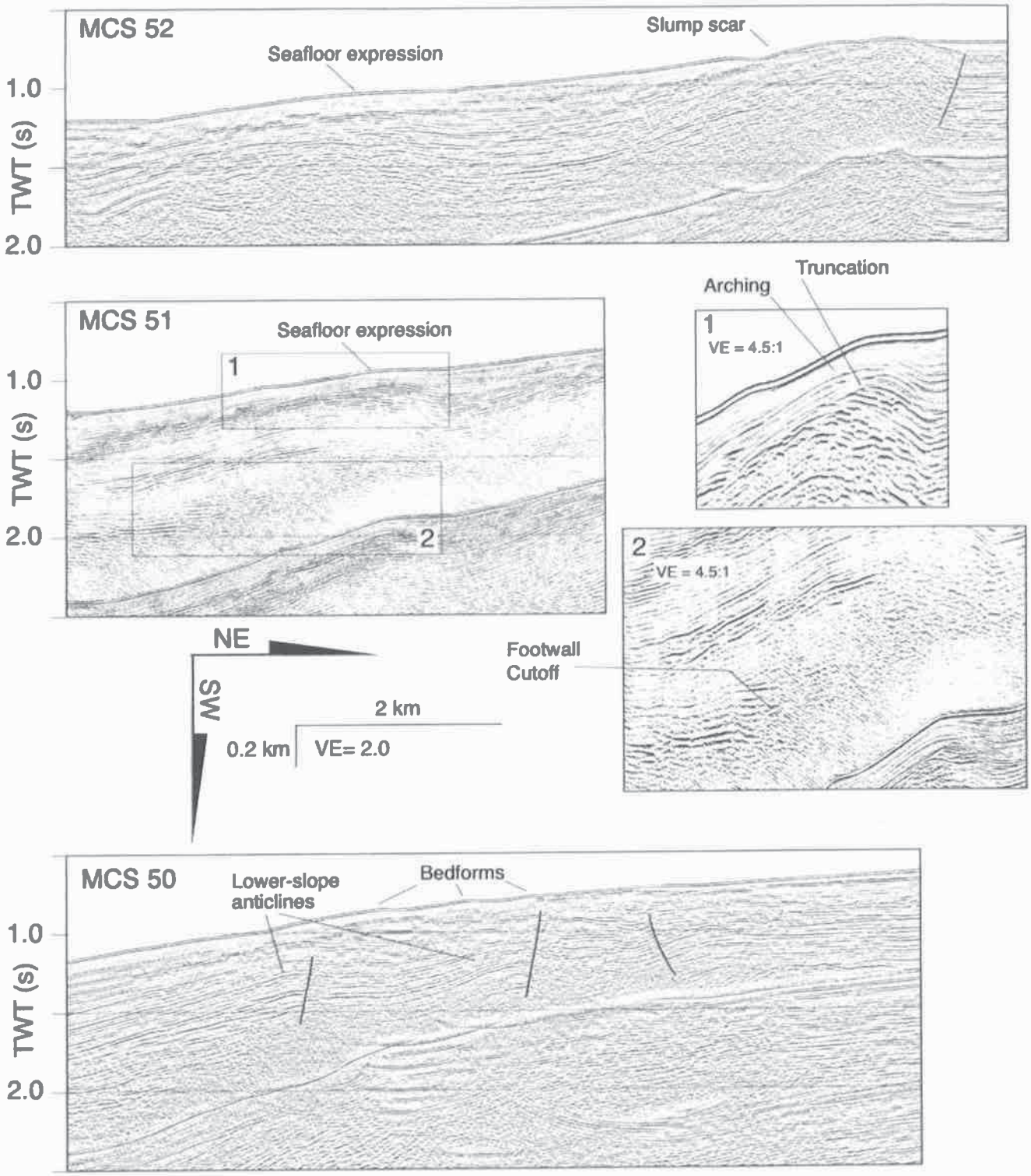

Figure 13. Poststack-migrated MCS sections over the lower-slope anticlines that extend southwest from near Point Dume to near the northwest end of the San Pedro Escarpment. Section locations are shown in Figure 4. Detailed section 1 shows strata over the crest of the northeastern anticline that were truncated, possibly by slumping or erosive turbidity currents, during early folding. Detail section 2 shows the geometry of beds in one anticline, which appear to have been deformed by a thrust fault. Section 50 shows the anticlines near Santa Monica Canyon, where they die out.

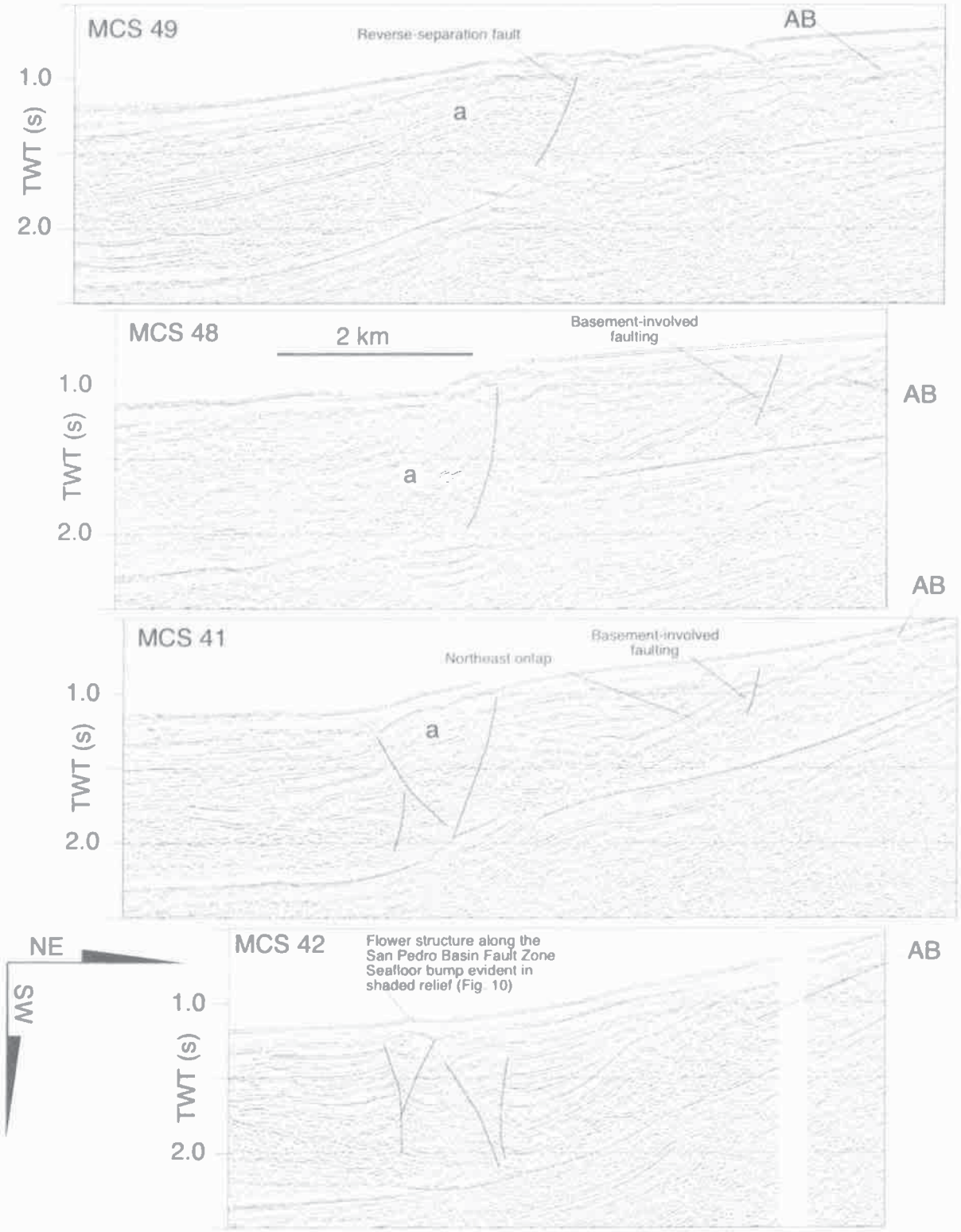

Figure 14. Poststack-migrated MCS sections, location shown in Figure 4, illustrating the geologic structure of the San Pedro Escarpment southwest of Santa Monica Canyon. Strata indicated by the "a" dip more steeply to the southwest on section 48 than elsewhere. Faults offset what is believed to be the reflection from acoustic basement (AB), which is probably made up of metamorphic rocks. The flower structure along the San Pedro Basin fault zone is distorted in part by migration noise.

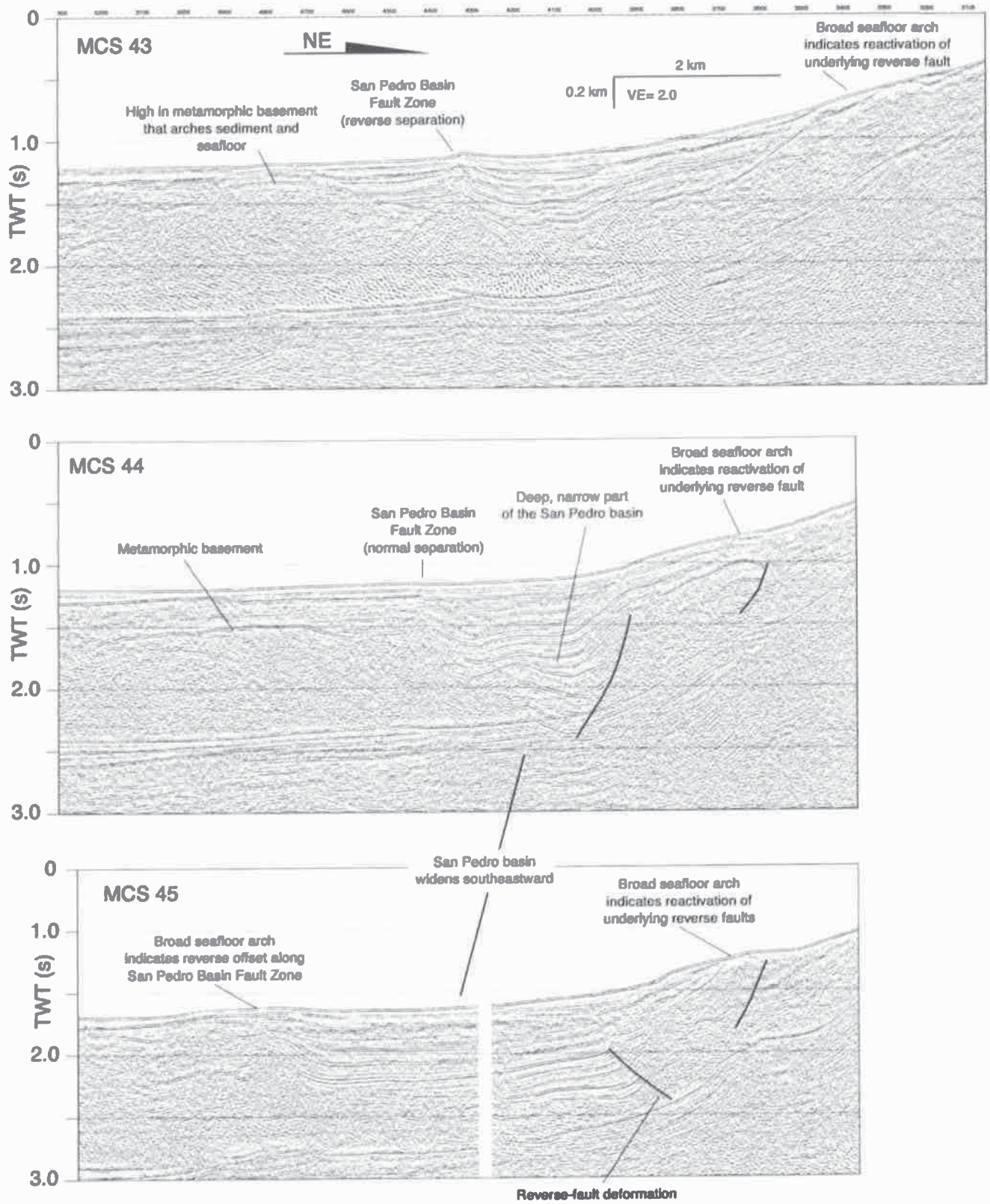

Figure 15. Three poststack-migrated MCS sections, showing the structure of the Santa Monica Basin between the San Pedro Escarpment, on the east, and acoustic-basement features that recently arched the seafloor, on the west. Locations of sections shown in Figure 4.

This evolution in structural style along the San Pedro Escarpment mirrors changes in the width and depth of the San Pedro and Santa Monica Basins. Convergent or transpressive structures evident in the northwest, on section 48 (Fig. 14), are located where the Santa Monica Basin is wide and deep (Fig. 1). These structures evolve southeastward into a flower structure, as on section 42 (Fig. 14). Farther southeastward, as shown by seismic section 44 (Fig. 15), the San Pedro Basin is narrow and deep, and nearby convergent structures have low relief. LARSE seismic sections 2 and 3 (Fig. 6) cross over the San Pedro Basin (Fig. 2) and show that this narrow basin lies between shallow basement rocks on the south and the escarpment on the north. Section 45 (Fig. 15) reveals that the San Pedro Basin is wider and deeper than it is to the northwest, and most nearby structures have low relief. Section 45 also shows that the northeast side of the San Pedro Basin is deformed by faults showing reverse separation.

Along the San Pedro Escarpment, then, compressive and extensional structures are commingled and have a complex distribution that, in some aspects, is difficult to envision even from the relatively close-spaced seismic sections we used. This commingling and the flower structure on seismic section 42 (Fig. 14) underscore the importance of strike-slip faulting on the development of structures along the escarpment and within the San Pedro Basin.

Age of Structural Development

Dating the development of the complex structures along the San Pedro Escarpment is important for the evaluation of the regional earthquake hazard. Constraints on timing come from correlating seismic-reflection data, collected with a high-resolution deep-towed boomer system, with the stratigraphic record obtained from ODP site 1015 (Shipboard Scientific Party, 1997; Normark *et al.*, 1998). The seismic section shown in Figure 16a is part of a larger section that extends southwest from the San Pedro Escarpment, across the Santa Monica Basin, and through the ODP drill site (dashed line in the lower-left corner of Fig. 10). Coring at this site recovered 150 m of dominantly turbidite sediment fill; the rate of deposition during the Holocene averaged about 2.5 m/10^3 yr (Piper and Normark, 2001). Much of the sediment section cored at site 1015 is part of the Hueneme Fan, which is fed from the Santa Clara River at the western end of Santa Monica Basin (Normark *et al.*, 1998; Piper *et al.*, 1999). The dated reflectors J to O shown on Figure 16 are from the latest Pleistocene and Holocene; reflector J, for example, marks the last glacial low stand of sea level at the close of the Pleistocene (Piper and Normark, 2001). Dated horizons can be mapped across the entire eastern half of Santa Monica Basin.

Along the base of the continental slope, the flat-lying turbidites of the Hueneme Fan onlap and wedge against the lower slope (Fig. 16b). Sandy turbidite beds below reflector N wedge against the lower slope, and a condensed section that blankets the slope itself represents the upper, muddy parts of these turbidite deposits. Above reflector N, the section is less muddy, and this latest Holocene section thins onto the lower slope without pronounced wedging. These dated reflectors have been correlated to folds that deform rocks at the base of the San Pedro Escarpment (Fig. 16a). Reflector J (13 ka old) (Fig. 16a) lies within the condensed section uplifted on the flank of the fold. Strata just a few meters below reflector J are deformed concordantly within the fold. Hence, the lower-slope folding began around the Pleistocene/Holocene boundary. Figure 16b shows that the sediment section between horizons L and J wedges against the lower slope. Reflector J (13.5 ka) onlaps a small, isolated, submarine-slide deposit that overlies a more extensive mass-wasting deposit with an irregular upper surface. The relief of this surface has been preserved by deposition of the latest Holocene sediment in hemipelagic drape (above horizon L). The date of these slides, just before 13 ka ago, is nearly the same as the age of the folding described earlier, suggesting that the two, outwardly independent processes of folding and sediment transport down a submarine canyon are linked and that with future work, they can be used to sharpen the timing of deformation.

Near the south limit of the shaded-relief map of the seafloor (Fig. 10), small ridges and knobs protrude above that seafloor and are aligned along a northwest trend. These seafloor features mark the location of the San Pedro Basin fault zone. They appear to be most evident west of the mouth of Redondo Canyon. Deep-tow boomer profiles that cross several of these features show when they formed. For example, the thickness of the turbidite section between J and M remains constant through the southwestern of the two folds (Fig. 16c; see also the detailed location and shaded relief map to the right of Fig. 16e). The section above reflector M thins northeastward, indicating that this fold began forming along the base of the slope more recently than 8 ka. Farther upslope, another fold appears to be faulted on its seaward flank. Our correlation of reflections through this fold suggests that folding began at about the time of reflector J (13 ka), about 5 ka earlier than the lower fold. The turbidite section between J and M wedges only slightly, suggesting that the early folding resulted in a low-amplitude structure. The seismic section profile in Figure 16b follows the crest of this northwest-trending fold; slight wedging of the section between reflectors J and L is observed along the margins of this feature.

A diapir punched upward through shallow basin fill (Fig. 16e), and the diapir is clearly evident as a bright, circular, seafloor projection in the shaded-relief map that is shown to the right of Figure 16e. The diapir is young, as indicated by the near absence of wedging in the sediment section above reflection J on the basinward flank of the diapir. Also the reflection character and spacing is similar on both sides of the diapir. The diapir indicates high-pressure fluids locally within the San Pedro Basin fault zone.

Structure of the Santa Monica and Northern San Pedro Basins

The deep-water Santa Monica Basin extends westward from the San Pedro Escarpment to the Santa Catalina Ridge, but small-air-gun seismic-reflection sections were collected only over the far eastern sector of this basin (Fig. 1). Small-air-gun MCS data do not show a reflection from basement because of masking by a strong, water bottom multiple. However large-air-gun MCS data from the U.S. Geological Survey 1990 and the LARSE 1994 surveys were obtained with sufficiently powerful acoustic sources to reveal the depth to basement. These data show that the Santa Monica Basin is extensive but shallow, being only about 1.5 km deep, and the basin overlies a strongly reflective, low-relief basement. This basement could include volcanic rocks but most likely comprises metamorphic rocks, the Catalina Schist, on the basis of wide-angle velocity data in ten Brink *et al.* (2000) and tomographic velocities in Figure 6b. Both velocity data sets reveal that beneath a sedimentary section about 1 km thick lie rocks having a seismic velocity of about 5 km/sec. The large-air-gun reflection data indicate that over wide areas southwestward from the Dume Fault, acoustic basement maintains a nearly constant depth below the seafloor. The basin pinches out to the southeast against the Redondo Knoll (Fig. 1), from which Miocene volcanic and volcaniclastic rocks have been dredged (Vedder, 1990).

Within the San Pedro Basin, the San Pedro Basin fault zone lies along or near the contact between basement rocks on the west and the basin's sedimentary fill to the east, and the separation across the fault varies considerably. For example, MCS section 46 (Fig. 17) shows reverse-fault separation, whereas the fault has normal separation in section 104. Folding along this fault is most pronounced deeper in the section; the horizon labeled "e" (section 104; Fig. 17) marks the top of the obviously folded basin fill. Folding above this horizon is subtle but affects rocks up to the seafloor, suggesting ongoing fault movement. The seafloor inflection indicated on section 46 is consistent with ongoing movement.

Discussion

The offshore geologic structure described falls within the tectonic crossroads below Santa Monica Bay, wherein northwest-trending faults, common southeast of this bay, somehow commingle with or are overprinted by west-striking faults associated with the western Transverse Ranges. In general, our seismic-reflection data reveal too little of the deep subsurface to delineate this structural convergence. Nonetheless, these data, together with regional geologic and seismological analyses presented elsewhere (e.g., Nardin and Henyey, 1978; Hauksson and Saldivar, 1986, 1989; Wright, 1991; McNeilan *et al.*, 1996; Dolan *et al.*, 2000), reveal that the Palos Verdes, Dume, and San Pedro Basin Faults should be included in analyses of regional earthquake hazards, because within and near the study area, all of these faults show evidence for Quaternary movement.

Analyzing the earthquake hazard associated with the Palos Verdes Fault has been one of our primary research goals. An important question raised by this study is, What becomes of the Palos Verdes Fault northwest of the Palos Verdes Peninsula? Successive marine terraces show that near this peninsula, the fault has a high strain rate and is a likely source for earthquakes (Ward and Valensise, 1994). In addition, high-resolution seismic-reflection data collected onshore near this peninsula show what are interpreted to be strands of the Palos Verdes Fault at shallow depth (Stephenson *et al.*, 1995). However, marine Geopulse records obtained near Redondo Canyon (e.g., Fig. 11) reveal that this fault offsets neither the seafloor nor shallow sediment. This sediment probably was deposited since the last rise in sea level, beginning at about 12 ka. In part, the inability to chart the fault's location results from the repeated episodes of subaerial exposure and erosion of the shelf during the Pleistocene. One result of this erosion is that Quaternary sediment is not widely preserved on the shelf; thus the apparent absence of shallow faulted sediment may point to reduced Holocene faulting. Nardin and Henyey (1978) also mentioned that the offshore location of the Palos Verdes Fault is not evident in high-resolution seismic-reflection data they interpreted.

The Palos Verdes Fault may be associated with some structural and bathymetric features developed around the Santa Monica shelf, but with only limited success we tried to map the location and structure of the Palos Verdes Fault based on secondary features this fault may have caused. One possibility in this regard is that the Palos Verdes Fault forms the northeastern boundary of the shelf area that is underlain by rocks involved in the short-wavelength folding. As described earlier, these folds are part of the shelf projection anticlinorium (SPA in Fig. 1). They have wavelengths of about 500 m, they extend shoreward from the San Pedro Escarpment, and both the amplitude and wavelength of the folds tend to decrease northward and eastward away from the escarpment. Shelf rocks are folded primarily beneath the part of the shelf between the Santa Monica and Redondo Canyons (outlined in Fig. 3). The folding ends 5–10 km southwest of the offshore location of the Palos Verdes Fault that was proposed by other researchers (e.g., Yerkes *et al.*, 1965; Wright, 1992). The difference in position is most pronounced near Santa Monica Canyon, where the limit of folded rocks diverges from the fault's proposed location to follow approximately the canyon's south wall (Fig. 3). Seismic-reflection section 41 (Fig. 7), for example, shows that shelf rocks under the south canyon wall are folded, but under the opposite wall and northeastward away from the canyon, shelf rocks make up an undeformed sediment apron. Both seismic-reflection sections in Figure 7 show what are probably reflections from metamorphic basement. These basement rocks are not folded in the style evident across the canyon. Also basement rocks dip away from the canyon

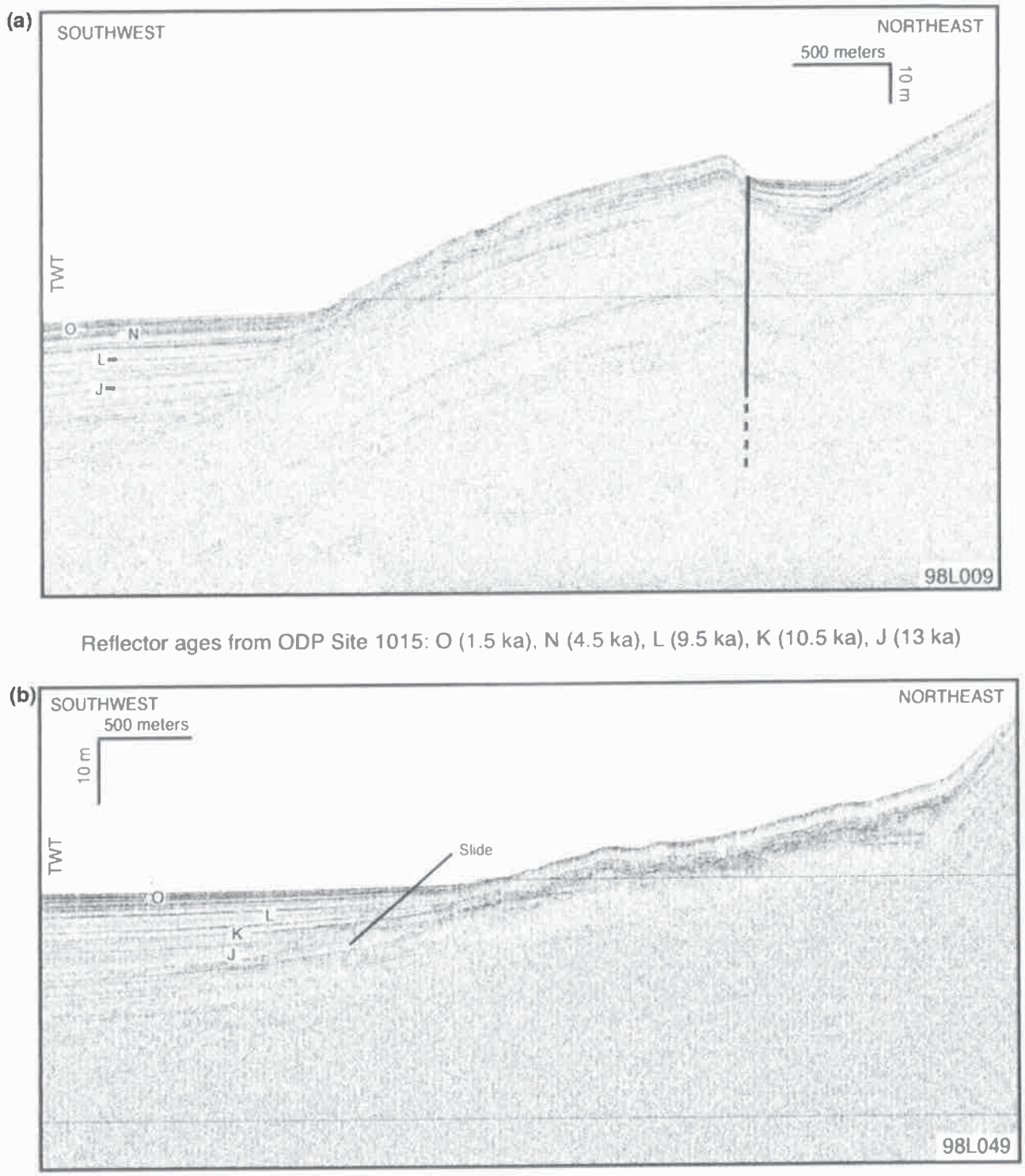

Figure 16. (a, b) Deep-tow boomer sections across the lower basin slope for which approximate ages can be derived from drilling results at ODP site 1015 (Normark *et al.*, 1998; Piper and Normark, 2001). Folding evident in Figure 15 (top) and sliding in Figure 15 (middle) seem to have begun before horizon J, which has been dated at 13 ka. Section locations are in Figure 10. (c–e) Deep-tow boomer sections across uplifted basin plain turbidites near the base of the Santa Monica slope. Key reflector stratigraphy from Piper and Normark (2001). Location of inset map shown in Figure 10. Diapir evident in the seismic section shown in Figure 16e is also evident as a narrow peak in shaded relief.

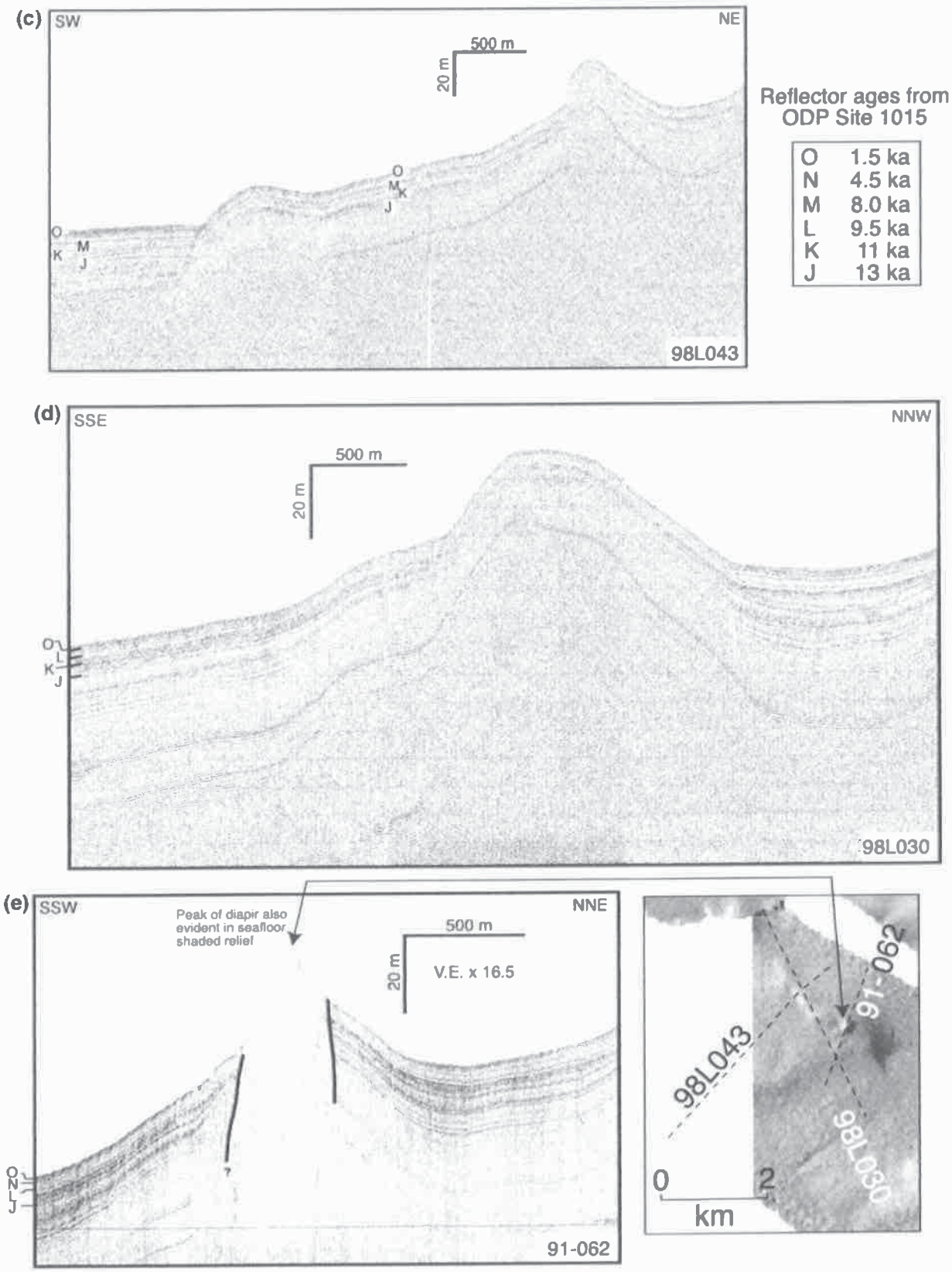

Figure 16. (*Continued*)

without evident structural interruption near the supposed location of the Palos Verdes Fault.

Despite the difficulty in locating the Palos Verdes Fault using marine seismic-reflection data presented here, some previous reports (e.g., Yerkes *et al.*, 1965; Wright 1992) indicate that this fault extends several tens of kilometers northwest of the peninsula beneath the shelf. This fault is interpreted to have a vertical separation on crystalline basement that is down to the northeast and amounts to about 1 km, as estimated from inferred depth contours (Yerkes *et al.*, 1965). Evidence for this deep fault derives from depths below the level of penetration of our seismic-reflection data. On the basis of data presented here, we interpret that no strand of the Palos Verdes Fault offsets Holocene sediment north of the Palos Verdes Peninsula.

Regional structural and tectonic models may provide clues to how the Palos Verdes Fault should appear in seismic-reflection data; however, significant interpretive difficulty arises from the uncertainty about whether the predominant style of movement along the Palos Verdes Fault is reverse or strike slip. One model that purports to show the structural underpinnings of the area east of Santa Monica Bay (Shaw and Suppe, 1996) indicates that the Palos Verdes Fault splays upward from the blind Compton thrust fault, which is proposed to offset rocks at considerable depth (5–10 km). The Compton thrust fault deforms rocks to a lesser degree in the northwest, the part of the fault Shaw and Suppe (1996) called the Baldwin Hills segment (Figs. 3 and 18), than in the main part of the thrust ramp, which lies to the southeast across a segment boundary. One possibility, then, is that diminished movement to the northwest along the Compton thrust fault may be expressed at shallow depth by the Palos Verdes Fault as it dies out to the northwest beneath Santa Monica Bay.

In another view of the Palos Verdes Fault (Shaw, 1999), it may be a reverse fault that has an apparent southwestern dip and transects much of the upper crust, down to depths as great as 10 km. Hypocenters about 10 km deep, all of which show reverse fault movement, as well as oil-industry seismic reflection data obtained about 10 km southeast of the Palos Verdes Peninsula are interpreted to indicate that for depths shallower than 5 km, the Palos Verdes Fault is vertical or dips steeply west (Shaw, 1999). The hypocenters showing reverse movement are interpreted to mean that between 5 and 10 km, this fault has an apparent southwestern dip at 30°. Ambiguity in this interpretation stems from the distribution of hypocenters, which are aligned almost vertically and not along the indicated fault plane.

If under Santa Monica Bay the Palos Verdes Fault dips west, as proposed in Shaw (1999) for the area southeast of the Palos Verdes Peninsula, then this fault's tip, the eastern limit of its upper plate, could outcrop along the curving course of the Santa Monica Canyon. This possibility is supported by three observations. First, the canyon forms the north and northwest limit of the topographically high-standing part of the shelf (Fig. 10), which may have been uplifted along the supposed, west-dipping reverse fault. A closely related point is that the canyon lies along the northwest limit of the short-wavelength folding of shelf rocks within the shelf projection anticlinorium. In contrast, across the canyon to the north of the anticlinorium, a weakly deformed sediment wedge underlies the upper slope. Second, north of this canyon metamorphic basement lies mainly deeper than about 2 km, whereas south of the canyon, basement is at shallow depth, less than about 1 km. Third, where the Santa Monica Canyon crosses the San Pedro Escarpment, the escarpment ends abruptly and a low-relief continental slope extends farther north and northwest. This crossing of canyon and escarpment coincides with a significant change in the structure of the San Pedro Basin fault zone. In our view, these differences across the Santa Monica Canyon indicate the presence of a fault, which might be the Palos Verdes Fault.

In contrast to tectonic models that highlight supposed reverse movement along the Palos Verdes Fault, other regional models indicate mainly strike-slip offset along this fault (Nardin and Henyey, 1978; Wright, 1991; McNeilan *et al.*, 1996; Francis *et al.*, 1996; Legg *et al.*, 2001). Evidence in support of the idea that the Palos Verdes Fault and some other offshore faults are strike slip includes that (1) flower structures are evident along some fault segments, as shown by seismic-reflection data presented here (e.g.,Fig. 14) and elsewhere (Francis *et al.*, 1996); (2) fault traces are straight, even where they cross significant seafloor relief; (3) the offshore faults parallel the northwest strike of other strike-slip faults associated with the Peninsular Ranges; and (4) secondary structures occur at fault bends, including pull-apart basins and pop-up structures, that are common along strike-slip faults.

The types of structures that develop where strike-slip faults bend are indicated by analog sandbox experiments (McClay and Bonora, 2001), which may be a guide to the types of structures that underlie the study area. Analog models indicate that structures below Santa Monica Bay might include a complex network of folds and faults that are transverse to the main strike-slip fault as well as shallow, high-angle reverse faults that terminate downward at nearly horizontal detachments. Compressively deformed zones where strike-slip faults bend are bounded laterally by subsidiary faults that show combined reverse and strike-slip offset and connect downward with the main strike-slip faults.

These analog models can be used as a guide to the complex rock structure that underlies the Palos Verdes Hills and the shelf projection anticlinorium. That these rocks are deformed by dextral shear, where strike-slip faults bend or end, is explained elsewhere (Narding and Henyey, 1978; Francis *et al.*, 1996; Legg *et al.*, 2001). If the Palos Verdes Fault is strike slip and ends to the northwest under Santa Monica Bay, then the fault may terminate within a complex convergence zone because its motion must be transferred to other faults or otherwise be accommodated within deforming crustal rocks. For example, Legg *et al.* (2001) proposed that the Palos Verdes Fault terminates below Santa Monica Bay,

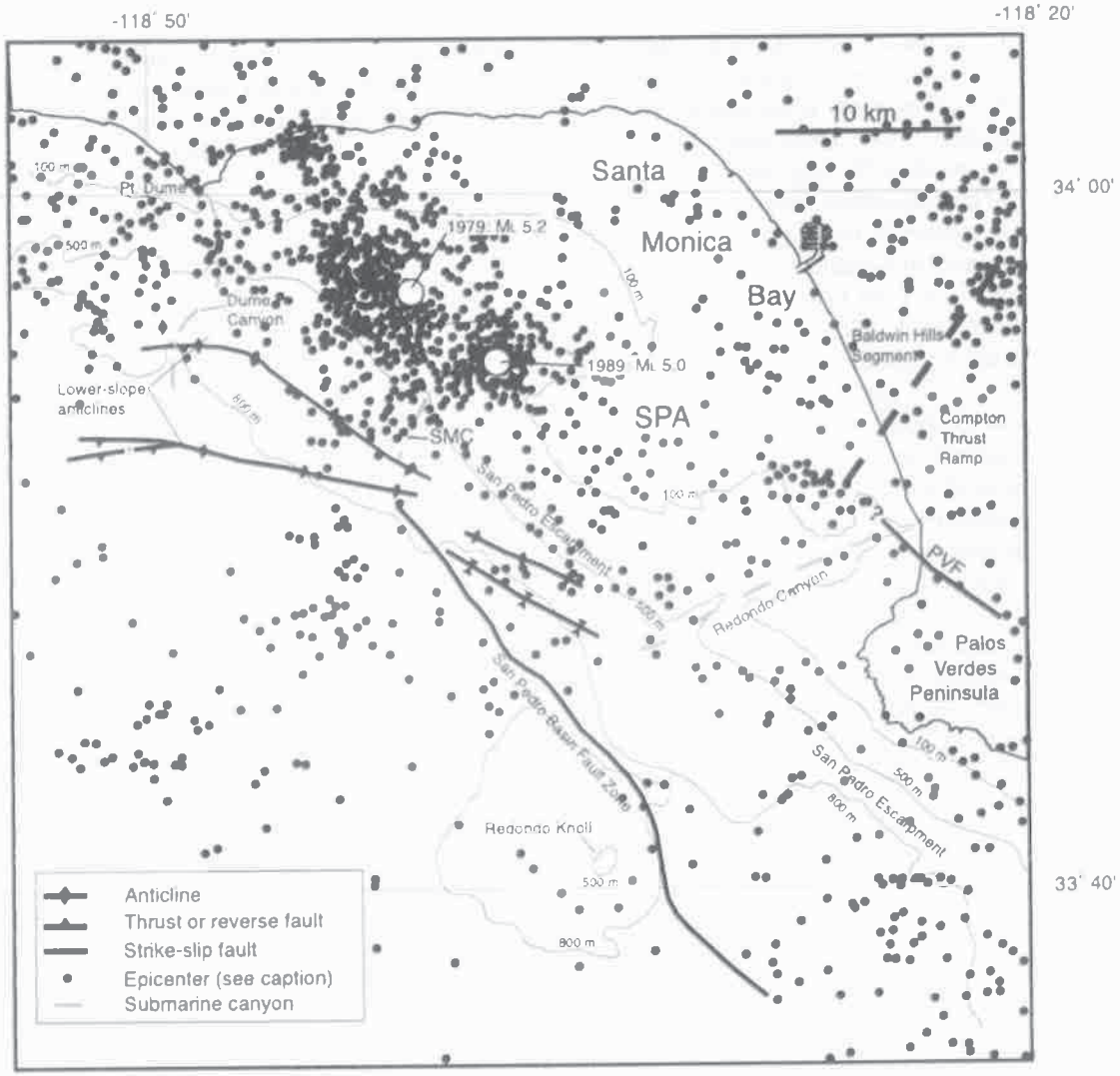

Figure 18. Summary structural findings from this report and earthquake epicenters (from Goter, 1992). The heavy dashed line that extends southwestward just north of the Palos Verdes Peninsula marks the approximate boundary between the Compton thrust ramp and the Baldwin Hills thrust-fault segment (Shaw and Suppe, 1996). PVF, Palos Verdes Fault; SMC, Santa Monica Canyon; SPA, shelf projection anticlinorium.

possibly causing the short-wavelength folding within the shelf projection anticlinorium.

A successful tectonic model for the study area needs to reconcile the observed hypocenters, 5–10 km deep, nearly all of which reveal thrust or reverse movement, with seismic-reflection data that reveal shallow (less than 2 km) rocks deformed by strike-slip and reverse faults. A two-level model that incorporates both observations might involve deep movement along low-angle detachments and reverse faults and an upper-crustal level, similarly deformed, but with the added complication of strike-slip faults. The observed scarcity of hypocenters showing strike-slip movement could mean that these faults are aseismic or that they do not extend downward to the seismogenic zone.

Other faults in the study area that might cause earthquakes include the San Pedro Basin fault zone and the fault zone that underlies the San Pedro Escarpment. Both of these fault zones strike northwest, like the Palos Verdes Fault and other faults associated with the Peninsular Ranges. The San Pedro Basin fault zone dips steeply and is probably strike slip, as indicated by the flower structures developed along it. Southeast of the Palos Verdes Peninsula, this fault coincides with the western limit of a dense distribution of small- to moderate-magnitude (M_W 3–5) earthquakes (Bohannon and Geist, 1998). Where this fault and the San Pedro Escarpment converge near the mouth of Santa Monica Canyon, the escarpment ends abruptly and a low-relief continental slope extends farther north and northwest. The lower-slope anticlines that deform rock below this slope show that the fault continues northwest nearly to intersect with the Dume Fault.

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From: r²m [mailto:rsquaredm@gmail.com]
Sent: Sunday, April 13, 2014 6:06 PM
To: Oil Project
Subject: cost-benefit analysis

To Ken Robertson April 13, 2014

From Roberta Moore
930 9th st.

RE: draft cost-benefit analysis.

1. I am very disturbed that Tidelands money is assumed to be usable as if it were Uplands income.

The city yard is Uplands and is where proposed wells will be located, but income will be from well under the sea and not legal to use for municipal or school purposes.

The draft report suggests that some common law may be applicable and could affect understanding of existing law. But common law is usually based on cases where existing written law is not clear, or not specific, or is lacking in some way.
Since the Tidelands Trust is quite clear and quite specific, I doubt that any decisions can rest on undermining it. MOOR-1

2. I believe that E&B should be required to pay for leasing the city land from the day that the city is forced to vacate that land.

I know no justification for paying no rent until 4 years after creating a producing well. Most probably the definition of a producing well should be addressed in every detail. It could take an unknown number of years of disturbing the peace, digging 30 wells, and keeping our land unavailable to us before achieving one productive well. MOOR-2

3. If an average barrel of oil sells for $100, why should the schools receive such a small share of that money? E&B expresses a concern that the state may reduce its support of our schools if the schools have too much income. This is nonsense. If our schools have too much income, we can surely give up the state share. (My personal opinion is that we should not be giving our property taxes to the state at all-but that is another issue) MOOR-3

4. Pages 118 thru 124 are simply unbelievable. Except for a vague faded drilling tower, appearing to be 2 miles away, the before and after pictures are identical to each other. E&B apparently chooses to be deceptive and that makes them unacceptable as a business partner. MOOR-4

5. We know that the oil is there; it is not unknown. It seeps up and covers our boats and ships at sea, it gathers on our beaches in the form of tar. Sometimes there is so much floating on the ocean that it can be seen from my house. No agreements should be made which are conditional upon 'discovering' oil and natural gas. MOOR-5

5. It is invalid to make any comparisons to Wilmington. Wilmington was developed as an oil field well before being developed as a lowest price community. Hermosa was developed almost one house at a time because it was and is a nice place to live. MOOR-6

From: **buyer** <1buyer2u@gmail.com>
Date: Wed, Mar 5, 2014 at 1:16 PM
Subject: 03/05/2014 Written Communication for Planning Commission
To: oilproejct@hermosabch.org, Pamela Townsend <ptownsend@hermosabch.org>, Ken Robertson <Krobertson@hermosabch.org>
Cc: "buyer ." <1buyer2u@gmail.com>

Please confirm that this email string is entered into the Oil Project Administrative Record, as a Written Communication, for the 3/5/14 Planning Commission meeting. MORT-1

Please delete or redact my phone number from public disclosure.

Hi Pam,
I was wondering why the Oil Code is not on the index of Municipal Codes, see link http://www.hermosabch.org/index.aspx?page=471

My public records search and the City's response indicates that the old Oil CUP is null and void. Could you please check for me if the Oil Code requires the creation and implementation of a CUP.

feel free to call,
Thanks, Tom Morley

MORT-2

Tom,

It is not codified. The intricacies of that I do not know. It is my understanding it is still in effect as it has not been revoked. What evidence do you have that it has been? The Oil Code would not require a CUP; the Zoning Code would have allowed the use subject to a CUP.

Pam

Hi Pam, good questions.

1. the City could not find any proof that section 15 (1 and 2) of the CUP were complied with and therefore, by it's own terms, the CUP was never effective. It did not need to be revoked

2. **17.70. 020 Expiration.**
http://www.hermosabch.org/index.aspx?page=471
Any permit or variance granted by the planning commission or city council becomes null and void if not established within the date specified in such permit or variance, or if no date is specified, within two (2) years from the date of approval of such permit or variance. An approved permit or variance shall be deemed to have been established if the approved activity or actual construction has commenced and has been diligently pursued in accordance with all requirements and laws. Notice of permit expiration need not be provided by the city.

3.
http://www.hermosabch.org/modules/showdocument.aspx?documentid=460

The Conditional Use Permit is NOT EFFECTIVE until all the conditions listed in the approved resolution are met. No building permits or alcohol licenses shall be issued for the project until all conditions are met, unless unfeasible, and the California Coastal Commission has approved the plans for all projects that are within the coastal boundaries as applicable.

MORT-2 continued

4. http://www.hermosabch.org/modules/ShowDocument.aspx?documentID=1678

The CUP was based on a different EIR, statement of overriding considerations and public hearings.

and more.

I found the Oil code elsewhere.
http://www.hermosabch.org/modules/showdocument.aspx?documentid=2079

see section 21a-2.4
Can you provide the document that shows E&B formally complied with the written notification to the director that the CUP was transferred?
see section 21a-20
Can you provide the document that shows E&B formally complied with the written notification to the director within 30 days related to the assignment of the project.

Tom

Thanks Pam,
CC Ken R

Let me explain why I am pursuing this issue.

I don't believe the City can declare a CUP valid in a Settlement Agreement due to the fact that a City can not contract away it's reserved powers or police powers. Thirteen years ago the State of California made that exact point when the CA Attorney General submitted an Amicus Curiae Brief supporting HB Citizens' Measure E in HBSOC v HB (CA App Court B137557) The PC and CC retain their right and responsibility to review and decide upon activities which may harm citizens and a previous unvested agreement cannot bind their hands. Nonetheless, an action to revive a CUP would require public hearings.

If the CUP is deemed effective by the City in spite of the issues brought up herein then I maintain that Section 16 of the CUP must be complied with because there is a change of operator and the CUP must be reviewed annually by the PC. (It has been more than two years from the 03/02/2012 SA)
Section 16
The Planning Commission may review this Conditional Use permit and may amend the subject conditions or impose any new conditions if deemed necessary to mitigate detrimental effects on the neighborhood resulting from the subject project.

The Planning Commission SHALL review, and if necessary, modify the conditions as set forth in this Conditional Use Permit on an annual basis or upon change in the operator of the project.

MORT-2 continued

Additionally I need to clarify the Municipal Code as it relates to the Planning Commissions role in Development Agreements. It seems that the PC must process the DA the same as a CUP i.e. throught the zoning process.

http://www.hermosabch.org/index.aspx?page=468
CHAPTER 17.64 DEVELOPMENT AGREEMENT
17.64. 010 Processing proposed development agreements.
A development agreement which may be proposed by the city or any person having a legal or equitable interest in real property shall be processed in the manner of a zone change as provided in Article 15 and shall conform to the requirements of Article 2.5 (commencing with Section 65864) Division 1, of the Government Code entitled "Development Agreements." (Prior code Appx. A, § 15.5-1)

17.64. 020 Periodic review of development agreements.
Any approved development agreement shall be reviewed by the planning commission (whose decision may be appealed to the city council in writing within ten days after the planning commission decision on review) at least every twelve (12) months after the approval of the agreement. The review shall be preceded by reasonable notice to the other party of the time of review and of any evidence that the agreement is not being complied with. (Prior code Appx. A, § 15.5-2)

17.64. 030 Action to determine validity.
An action to determine the validity of a development agreement entered into by the city, or any amendment or modification to it, may be brought pursuant to Chapter 9 (commencing with Section 860) of Title 10 of Part 2 of the Code of Civil Procedure. (Prior code Appx. A, § 15.5-3)

Can I use the same rules outlined in 17.64.030 to determine the validity of an old CUP?

Last, What is the appropriate way for these issues to be presented and discussed with the Planning Commission tomorrow 3/5/14 as they relate to the role of the PC as presented in the staff report.?

Best Regards,
Tom Morley

MORT-2 continued

Tom,

We will get back to you on this.

Pam

12:31 PM (41 minutes ago)

to Pamela, Ken

Hi Pam and Ken,

Please let me know the latest time which I can submit a Written Communication for tonight's special Planning Commission meeting. I intend to speak to such letter in the time allotted, schedule permitting.

I would hope that I could incorporate in such letter your departments response to my emails of 3/4/14 related to the compliance to the Municipal Code in the matters of the CUP and Development Agreement (DA) for the Oil project.

MORT-3

Best Regards,
Tom Morley

Tom,

Noon is the cutoff. If we receive something later, whether it is provided will depend on workload. You can always bring copies. The Commission is not taking any action.

We have referred your emails to the City Attorney and a response will likely not be made before this evening.

Pam

Hi Pam and Ken,
Thank you for the quick reply,

Let's just use all of our email communications from yesterday and today as my written communication right now. As you advise, I may bring other documents tonight.

Please confirm that the email string is entered into the Oil Project Administrative Record, as a Written Communication, for the 3/5/14 Planning Commission meeting.

MORT-4

Please delete or redact my phone number from public disclosure.

Regards, Tom Morley

Comments on the Draft EIR
RE; Fire Code, setbacks and more compliance to existing laws, codes and regulations.

The DEIR should discuss Section 5706.3 of the California Fire Code related to Oil Well setbacks.

MORT-5

See fire chief communication below.

Hi Chief Lantzer,

Thank you for our conversation last week on the application of the intent of the Fire Code as related to surface wellheads.

I just thought I would touch base with you to see if you have an update and/or if you have agreed to join me in the State code interpretation request.

I am checking now because we are half way through the 60 day comment period of the Draft EIR.

Best regards,
Tom Morley

On Sat, Mar 22, 2014 at 5:13 PM, David Lantzer <Dlantzer@hermosabch.org> wrote:
Mr. Morley,
After considering it for some time, I have decided that I will not be joining you in your request for a code interpretation request.

Sincerely,
David Lantzer

Sent from my iPad

I am worried that this vital setback and safety protection may be waived. The DEIR suggests the applicant request a modification to the Fire Code based on 'thermal radiation' only. I think there is sufficient surface area to accommodate the Code requirements of 5706.3. (and DOGGR requirements PRC 3600 - 3606) by redesigning the project to meet the requirements. (see attached picture)

As I read California Fire Code section '[A]104.8 Modifications' , our Fire Chief may grant a modification if the circumstances are such that the project can meet the "intent and purpose" of the original code.

I would like to have the DEIR specify the official position on the "intent and purpose" of Section 5706.3. through 5706.3.1.3.1

MORT-6

It would be helpful if the DEIR could determine when the most recent changes to the rule may have occurred and if the current rule is stronger than the old version. Are there any California code changes being considered?

MORT-6 continued

This section 5706.3 specifies oil wells must comply with 75 foot setbacks from streets, 100 foot setbacks from existing buildings and 300 foot setbacks from Group A occupations (in our case a local church/school). The DEIR should require a site plan modification to accommodate compliance to the code rather than suggesting a mitigation to modify the code per CEQA. If no site plan modification is demanded then the DEIR should explain why a site plan redesign is not being performed.

I think there must be a reason why the distances of 75, 100 and 300 feet were established as the minimum distance from surface oil wells and hope the DEIR would inform us of the list of activities or potentialities which were included in the consideration in the establishment of the rule. Are there records of the deliberations on this determination?

MORT-7

The DEIR only mentions a variance for 'thermal radiation' would be required and may be justified by a more robust block fire wall. Beyond the obvious fire danger of oil drilling, The DEIR should mitigate the other reasons that the Fire Code was written with minimum setbacks and the DEIR should take into consideration all of the other hazards and risks of Oil and Gas development such as;
a. Hydrogen Sulfide and other toxic releases,
b. Percussive damage from blowouts and explosions,
c. Hazmat concerns of gas dispersal and liquid leak exposure.
d. Hazmat remediation activities. post-incident
e. Noise, odors and light health impacts.
f. Rig structure failure and collapse.
h. Combined event Hazard footprint.
I. First Responder access to emergency events.
j. Earthquake related rig collapse.

MORT-8

I expect that the height of the OIl Drilling rigs and the Workover rigs, and cranes (85 ft. to 210 ft.) were also considered as a risk of collapse when the Fire Code setback codes were developed. We think the Fire Code would have considered equipment and personnel access to all sides of the wells. (in this case 30 wells). Was there any consideration for our dense urban situation where the proposed project would be considered a 'critical well' under DOGGR definitions. The DEIR should mitigate these situations. These are 'critical wells' located within 300 feet of occupied structures.

I am concerned, in our local instance, that the proposed 33 foot setback to buildings which is approx. only one third the height of the drilling rig (5 years with redrills) and one fourth the height of the workover rigs (30 years) would not provide sufficient safety protection from the failure and falling of either rig. This should be of concern to the building occupants and the firefighters as well. The DEIR should mitigate these situations.

MORT-9

TheDraft EIR should also consider State *Article 2.1.* Well Spacing Patterns-New Pools starting with Section 1721. The DEIR should mitigate these wellhead spacing or require site plan redesign per CEQA.

MORT-9 continued

The proposed project on the 1.3 acre site (240 ft by 250 ft lot dimensions) is designed for more than the one well per acre and the wellhead surface locations are closer than 100 feet from buildings and roads. The DEIR should require a site plan redesign before suggesting a mitigation to waive or modify the DOGGR code requirement and Fire Code. The City Oil Code requires compliance to DOGGR regulations at a minimum. The City CUP requires compliance to the Fire Code. If these two documents are considered 'entitlements' in the Draft EIR then the documents must be complied with.

MORT-10

It appears the applicant is going to be looking for a Local Fire Chief exemption and a DOGGR waiver or exception from these distance and density requirements for surface wells. As I understand waivers from the Fire Code, for example, the design elements must substantially meet the intent and purpose of the original code by some other means. The DEIR must provide DOGGR's specific rule for considering exceptions to the PRC code? The DEIR shold specify the intent and purpose of PRC 3600 to 3606.1 well setbacks and site density?

If I read the code correctly, the DOGGR rule is for a density of one wellhead per surface acre (or two wells in some cases by exception) and specifies a 150 foot distance between wellheads on the surface. The DEIR should specify the intent and purpose of the original code and advise us on the specific protections to people or property that are provided by these densities. What is the policy and criteria for DOGGR to approve exemptions from the surface well location and density codes? Could the DEIR provide any examples where DOGGR has approved surface wellheads for new projects denser than one well per acre? Is each wellhead counted separately or would two well cellars of a dozen wells each be counted differently as applied to the 150 foot surface well separation code requirement?

MORT-11

The DEIR should provide an explanation of the decision criteria guidelines for PRC 3609 related to determination of surface and subsurface well spacing plans.

MORT-12

The DEIR should specify if the DOGGR related code will be strictly applied or how it is determined if it may be waived or modified as defined by DOGGR (PRC 3600-3609) and the 2013 California Fire Code (5706.3).

MORT-13

The DEIR should consider the following linked information and explain how these conditions will be mitigated for the noncompliant site Plan. CEQA recommends site redesign to avoid impacts.
http://www.conservation.ca.gov/dog/faqs/Pages/Index.aspx#how_close

MORT-14

17. How close can someone drill to my house?

Land-use issues such as how close can someone drill to your house, business, or school are handled by the local agency such as the city or county where you live. Each local agency will have different set-back rules that depend on your type of structure. Check with your city or county planning department to find out how close a well can be drilled to your house.

The Division has well-spacing regulations that can be found in Section 3600 of the Public Resources Code. Also, the Division defines a critical well as a well that is located:

MORT-14 continued

- Within 300 feet of a residence or airport runway or
- Within 100 feet of a dedicated public street, highway, or operating railway; any navigable body of water; any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or any officially recognized wildlife preserve.

Critical wells are required to have safety devices installed on them that automatically close the well down in case of an emergency.

The DEIR must verify the proposed project complies with all laws as identified on the following link.
ftp://ftp.consrv.ca.gov/pub/oil/laws/PRC01.pdf

CA laws for Oil and Gas Jan 2014 133 pages.
page 79 3600

CHAPTER 3. SPACING OF WELLS AND COMMUNITY LEASES

Page 82 (86/133) Pools discovered after January 1, 1974; wellspacing plan 3609

Page 124 3609 added by stats 1973. c. 864

pg 76

MORT-15

3600 wells within 100 ft from outer boundary of land, (or street) or within 150 feet of a well being drilled or producing (or capable of) **is a public nuisance.**

3600. Certain wells declared public nuisances (Derivation: Former Section 3600, enacted by Stats.1939, c. 93. Stats.1931, c. 586)(Added by Stats.1947, c. 1559.)

3601 does not apply

3602 (this is true for HB 240 ft wide) Where a parcel of land contains one acre or more, but is less than 250 feet in width, there may be drilled on the parcel of land **not more than one well to each acre of the area** if the surface location of any well or wells is so

placed as to be as far from the lateral boundary lines of the parcel of land as the configuration of the surface and **the existing improvements thereon will permit.**

Note; there will not be any existing improvements after City Yard removal.

3602. Spacing of wells on certain parcels(Derivation: Former Section 3602, enacted by Stats.1939, c. 93. Stats.1931, c. 586)(Added Stats.1947, c. 1559. Amended by Stats.1955, c. 1218.)

3602.1 does not apply (not too viscous)

3602.2 does not apply

3603 does not apply

3604 Each day in which the drilling of any well is carried on, or on which it is permitted to produce oil or gas in violation of this chapter is a separate nuisance.

3605 does not apply

MORT-15 continued

3606 Notwithstanding any other provisions of this chapter, where a parcel of land contains one acre or more **and where all or substantially all of the surface of such parcel of land is unavailable for the surface location of oil or gas wells**,

Note this is not true in HB, all land is available on site. so 3606 does not apply.

3606. Wells on certain parcels permitted; conditions; determination of surface location of well; determination of producing interval of well; requirement of plat of subsurface directional survey(Derivation: Former Section 3606, enacted by Stats.1945, c. 139.)(Added by Stats.1947, c. 1559.Amended by Stats.1957, c. 405; Stats.1959, c. 1514.)

3606.1 The 150-foot restriction in Sections 3600 and elsewhere in this chapter shall apply only to wells drilled and producing from the same zone or pool; provided, however, that the well density shall not exceed one well per acre **unless the supervisor shall determine that more than one zone or pool underlies the property**

Note; not true for HB

and that it is not practical to produce from all of such zones or pools from a single well per acre

and **that such other zones or pools are being drained by offset wells.**

Note; not true for HB

In such cases only, a maximum density of two wells per acre may be approved. These exceptions to the general spacing rule shall apply also to properties qualifying under Sections 3602 and 3606.

Note: all three criteria are not met for 3606.1 to apply.

3601.1. Exceptions to 150-foot general spacing rule (Added by Stats.1955, c. 925.)

3607 does not apply

3608 does not apply because this is not less than one acre in HB. "Where land aggregating less than one acre is surrounded by other lands,..."

3608.1 does not apply

3609 does not apply because of report PRC01 column note "Pools discovered after January 1, 1974; wellspacing plan"

Note: the field was discovered in 1956 or earlier when Redondo Beach first drilled into the Tidelands.

MORT-15 continued

3609 **Notwithstanding any other provisions of this chapter, if the supervisor determines, pursuant to rules and regulations**

Note: which rules and regulations'?

and after a public hearing,

Note: which section defines the 'public hearing'?

that the development of a pool discovered after the effective date of this section for the production of oil and gas,

Note; the Hermosa Beach section of the Wilmington/Torrance field was not discovered after January 1, 1974.

or either,

requires the adoption of a well-spacing pattern other than that specified in Sections 3600 to 3608.1, inclusive, in order to prevent waste and to increase the ultimate economic recovery of oil or gas,

3609. Well-spacing plan; mandatory pooling agreements (Added by Stats.1973, c. 864.)

Note; This is the key. What does either mean here?

Where does the mandate to protect health and safety come to play? page 6

page 101 health and safety code.

What criteria determines if this situation 'requires' 'other than that specified in' 3600 and 3602 ? Can the Supervisor determine this spacing plan is not a public nuisance?

Is this the only reason to override 3600 and 3602 " in order to prevent waste and to increase the ultimate economic recovery of oil or gas"?

Does 3609 apply to old projects or also to new projects?

Does it matter if this is a critical well?

he may adopt a well-spacing plan to apply to the surface and subsurface of a designated pool. Such plan shall be applicable to all wells thereafter drilled or redrilled into such pool.

Such plan may include a requirement that, as a prerequisite to approval to drill or redrill a well, all or certain specified parcels of land shall be included in a pooling or unit agreement. The supervisor may provide in the rules and regulations for mandatory pooling agreements in connection with the well-spacing order.

MORT-15 continued

Article 2.

Administration

3106. (a) The supervisor shall so supervise the drilling, operation, maintenance, and abandonment of wells and the operation, maintenance, and removal or abandonment of tanks and facilities attendant to oil and gas production, including pipelines not subject to regulation pursuant to Chapter 5.5 (commencing with Section 51010) of Part 1 of Division 1 of Title 5 of the Government Code that are within an oil and gas fi eld, **so as to prevent, as far as possible, damage to life, health, property**, and natural resources; damage to underground oil and gas deposits from infi ltrating water and other causes; loss of oil, gas, or reservoir energy, and damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of, detrimental substances.

pg 9 I need to check these codes

3112. Notwithstanding any other provision of this code or of law and except as provided in the State Building Standards Law, Part 2.5 (commencing with Section 18901) of Division 13 of the Health and Safety Code, on and after January 1, 1980, the supervisor or the Division of Oil and Gas shall not adopt nor publish a building standard as defi ned in Section 18909 of the Health and Safety Code unless the provisions of Sections 18930, 18933, 18938, 18940, 18943, 18944, and 18945 of the Health and Safety Code are

expressly excepted in the statute under which the authority to adopt rules, regulations, or orders is delegated. Any building standard adopted in violation of this section shall have no force or effect.

page 39

3252. As used in this article, **"natural resources"** includes land, water, air, minerals, vegetation, wildlife, historical or aesthetic sites, or any other natural resource which, irrespective of ownership, contributes to the health, safety, welfare, or enjoyment of a substantial number of persons, or to the substantial balance of an ecological community.

page 92 Note; setbacks and site density should not be relaxed because of the methane threat.

CHAPTER 7. METHANE GAS HAZARDS REDUCTION

Article 1. **General Provisions**

3850. This chapter shall be known and may be cited as the Methane Gas Hazards Reduction Act. **3851**. The Legislature fi nds and declares that methane gas hazards, as identified in the study conducted pursuant to Chapter 4.1 (commencing with Section 3240) of Chapter 1, are a clear and present threat to public health and safety.

Note: 3862 should be required before 3609 setback waivers.

MORT-15 continued

3862. Prior to receiving any grants pursuant to this chapter, an eligible jurisdiction shall do all of the following: (a) Implement a zoning ordinance for areas containing methane gas hazards that establishes a methane gas hazard overlay and provides mandatory studies and mitigations for new construction within the overlay zones. (b) Revise the safety element of the city or county general plan to illustrate the methane gas hazard areas and establish mitigative policies. (c) Prepare a methane gas hazard mitigation plan, which provides strategies and mitigations for reducing existing methane gas hazards and for avoiding further hazards due to new construction. The plans shall be consistent with the grant report, the zoning ordinance, and the general plan safety element.

3013

3013. This division shall be liberally construed to meet its purposes, and the director and the supervisor, acting with the approval of the director, shall have all powers, including the authority to adopt rules and regulations, which may be necessary to carry out the purposes of this division.

3106 3112

3152

3152. “Hydraulic fracturing” means a well stimulation treatment that, in whole or in part, includes the pressurized injection of hydraulic fracturing fluid or fluids into an underground geologic formation in order to fracture or with the intent to fracture the formation, thereby causing or enhancing, for the purposes of this division, the production of oil or gas from a well.

3156 3203

3234

3234. (a) (1) Except as otherwise provided in this section, all the well records, including production reports, of any owner or operator which are fi led pursuant to this chapter are public records for purposes of the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code).

3235

3254

MORT-15 continued

3254. This article shall be liberally construed and applied to promote its purposes.

3257 3270

3331 3332 3333

3331. Any order issued by the supervisor pursuant to this article, from its effective date, shall be binding upon each person owning or claiming any legal or equitable interest in the area which is the subject of such order or in the oil and gas produced or to be produced therefrom or a right to participate in a share of the proceeds thereof. From the effective date of such an order it shall be unlawful for a person to drill, redrill, operate, work on or produce any well within such area otherwise than in conformity with the order.

3332. Within 30 days after the written notice of the entry of a fi nal order of the supervisor, or within such further time as the supervisor may grant for good cause shown, but in no event shall such time be extended more than 60 days from the written notice of entry of such final order, any person affected thereby may fi le with the supervisor an application for a rehearing in respect to any matter determined by such order, setting forth the particulars in which such order is considered to be objectionable. The supervisor shall grant or deny any such application in whole or in part within 30 days from the date of the filing thereof, and failure to act thereon within such period shall constitute a denial of such application. In the event that a rehearing is granted, notice to such effect shall be given to all persons affected by such order, advising them of the date of such rehearing and of their right to appear and be heard thereon. The date set for any such rehearing shall be not less than 30 days nor more than 60 days from the date the application for rehearing is granted, unless, upon good cause shown, the time is extended by the supervisor, but in

no event shall such time be extended more than 90 days from the date such application for rehearing is granted. The supervisor may enter an amended order or a new order after the rehearing as may be required under the circumstances. The provision of Article 6 (commencing with Section 3350) of Chapter 1 of Division 3 relating to appeals and review shall not apply to this article.

3333. (a) A final order of the supervisor shall be subject to judicial review by fi ling a petition for a writ of mandate in accordance with the provisions of Chapter 2 (commencing at Section 1084) of Title 1 of Part 3 of the Code of Civil Procedure in the superior court of any county in which all or any part of the area affected is located, except that any such proceedings shall be instituted within 30 days from the date that a certified copy of the transcript of the proceedings before the supervisor has been delivered to the applicant; otherwise, the findings and determination of the supervisor shall be deemed fi nal and conclusive. Any action so filed shall incorporate therein a certified copy of the transcript of the proceedings before the supervisor.

(b) Notice of intention to petition the superior court for judicial review shall be fi led

by the applicant or applicants with the supervisor within 60 days after the entry of the final order complained of or within 60 days following the final disposition of any application for rehearing. The notice must identify the order and state the grounds of objection thereto.

MORT-15 continued

Immediately upon the filing of such notice the supervisor shall certify to the applicant or applicants the estimated cost of preparing the transcript of the proceedings before the supervisor.

The amount of the estimated cost shall be deposited with the supervisor within 10 days after the mailing of the certification of such cost to the applicant or applicants. Upon the deposit of the cost the supervisor shall order the preparation of the transcript. A certified copy of the transcript shall be delivered to the applicant or applicants within 60 days from

the date of the fi ling of said notice of intention unless such time is extended for good cause by the supervisor, but in no event later than 90 days from the date of fi ling of such notice.

3334. The pendency of actions before the superior court or proceedings for review before any other court of competent jurisdiction of itself shall not stay or suspend the operation of any order; however, the superior court or such other court in its discretion, upon its own motion or upon proper application of any party thereto, may, for good cause, stay or suspend, in whole or in part, the operation of any order pending consideration or review thereof.

3335. If an action for judicial review has not been commenced within the time prescribed for such action, or, if filed, the time within which to process an appeal by the petitioner from any judgment or order rendered therein has expired, or if such an appeal has been

timely perfected and there has been an affi rmance of such judgment or order, the supervisor may order that the production by noncomplying owners or operators of oil or gas from any pool or pools or portions thereof cease or be curtailed until such noncomplying owners or operators comply with said unit order.

MORT-15 continued

Tom Morley
end

Brittney

From: Greg Chittick [greg.chittick@mrsenv.com]
Sent: Tuesday, April 15, 2014 1:53 PM
To: Brittney Stephens
Subject: FW: Draft EIR submission

Greg Chittick
Senior Engineer and Scientist
3140 Telegraph Rd Suite 2A
Ventura, CA 93003
805-289-3924
greg.chittick@mrsenv.com

From: Pamela Townsend [mailto:ptownsend@hermosabch.org]
Sent: Tuesday, April 15, 2014 12:02 PM
To: Mary McDaniel (mmcdaniel@intrinsik.com); 'Edward Almanza (superpark@igc.org)'; Luis Perez; Greg Chittick
Subject: FW: Draft EIR submission

Pamela Townsend, Senior Planner
City of Hermosa Beach
Community Development Department
1315 Valley Drive, Hermosa Beach, CA 90254
Phone: (310) 318-0242 Fax: (310) 937-6235
Email: ptownsend@hermosabch.org
Hours: Monday-Thursday, 7:00 a.m.–6:00 p.m.
Website: http://www.hermosabch.org
Municipal Code:http://www.hermosabch.org/departments/cityclerk/code/

From: Ken Robertson
Sent: Tuesday, April 15, 2014 7:42 AM
To: Oil Project
Subject: FW: Draft EIR submission

Ken Robertson
Director, Community Development Department
City of Hermosa Beach
(310) 318-0242

From: buyer [mailto:1buyer2u@gmail.com]
Sent: Monday, April 14, 2014 10:20 PM
To: Ken Robertson
Subject: Draft EIR submission

Hi Ken,
Please do not publish my email or phone number on the City website or any other method.

Thank you for the opportunity to participate in the Hermosa Beach EIR and CBA process.
Please enter all of my submissions into the administrative record and consider any reference to a Notice of Preparation (NOP) to be equally applied to the Draft EIR.

Please find attached link expressing my concerns, opinions and alternative submissions. MORT-16
This item , previously submitted for the Health Impact Assessment is now being submitted for the Draft EIR.
http://www.hermosabch.org/modules/showdocument.aspx?documentid=3446

Please consider all of my past concerns as new concerns for the purpose of the DEIR consideration.

I look forward to further involvement in the process.

Respectfully, Tom Morley

From: Dency Nelson [mailto:dln52@verizon.net]
Sent: Sunday, April 13, 2014 11:00 PM
To: Oil Project
Subject: COMMENTS for Draft EIR - Proposed Oil Drilling & Production Project

April 13, 2014

Mr. Ken Robertson

Community Development Department

1315 Valley Drive

Hermosa Beach, CA 90254

Mr. Robertson,

As the deadline approaches for comments to be included in the Draft EIR for the Proposed Hermosa Beach Drilling & Production Project, I want to take this opportunity to go on record with just this.

As I stated back in 2008 when I relinquished my role as Chairman of the Hermosa Beach Green Building Committee, and chose not to become a part of the new Hermosa Beach Green Task Force, I was waiting and hoping for members of the community with real expertise and training in any and all matters of Climate Change Mitigation to step forward to offer facts and scientific knowledge to contribute to what I already know to be true, that this project is "not safe, not healthy and a bad deal" for the Hermosa Beach community and the planet. They have done that, and in spades! I chose to be available at the two public opportunities on April 2 &10, not to speak myself, but to yield my time to those experts, and I did and they did! NELD-1

But, as I know that it is important for each and every one of us in this community who has strong feelings about this project to go on record, but also to use the opportunity for exactly what is requested during this period, that is, to add things that are not already examined in the Draft EIR as it currently crafted, I offer the following.

As Joe Galliani of the South Bay 350 Climate Action Group stated Thursday night, the Draft EIR does not mention anything whatsoever about the Carbon Budget and the very expensive payment that the City of Hermosa Beach will have to make for all of the Carbon that will be pulled out of the Torrance Oil Field should this project go forward. It is a debt to the planet that we will have to pay, in a very real way, and should be addressed in this EIR. Please see the following two items and include their findings in the report: NELD-2

www.globalcarbonproject.org/carbonbudget

http://www.nytimes.com/2014/04/14/science/earth/un-climate-panel-warns-speedier-action-is-needed-to-avert-disaster.html?smid=tw-share&_r=0

Thank you for your attention to this matter, and for including my very specific concerns regarding this omission in the report as it currently exists. Let me also add that I find everything that already exists in all three reports offered to us on February 13, and illustrated and explained on February 24 & 26, to be of more than enough concern for this project to ever be considered for the City of Hermosa Beach.

Addendum to NelD-1

Sincerely,

Dency L. Nelson

2415 Silverstrand Avenue

Hermosa Beach, CA 90254

.erri Dinubilo

From: Rollie Nichols <r.nichols4343@gmail.com>
Sent: Monday, March 17, 2014 10:57 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Hermosa Beach Drilling Project

1813 6th Street
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I am a student at Mira Costa High School and a resident of Manhattan Beach. I have lived in the south bay for roughly eight years throughout Hermosa, Redondo, and Manhattan. I am writing you this letter to inform you on my view of the pending drilling project in Hermosa.

In my opinion, I think that the drilling is a bad idea and is going to more negatively affect the community than it does positively. NICR-1 The oil that will be being drilled is a danger in many ways. One of them is the possibility of a spill. I am aware that there is proof of safety precautions that will not allow that but it is still always possible. NICR-2 The oil spill could influence the wildlife horribly and ruin the beaches.

Another big reason that I think the oil drilling is a bad idea is that it will require huge trucks and machines all over the south bay to suck up the oil and transport it wherever it may need to go. This machinery is going to look hideous in the city and also could cause traffic because of the blocked roadways. NICR-3

The machinery that is going to be used is also going to produce pollution which is extremely unwanted in the south bay. Not only will the drilling produce smog and unwanted chemicals in the air, it will also cause lots of noise pollution too. These different versions of pollution are going to make the city much less beautiful than it is now and is going to greatly take away from the experience of coming to the south bay. NICR-4

The city of Hermosa Beach has had many varied responses when it comes to the drilling and it is easy to see both sides of the story. One one hand, the oil will bring tons of money to the south bay and will reduce the cost of the oil that we import. However, the drilling is also going to cause many problems as stated above. Therefore, even though there are some good sides to the drilling, the bad ones outweigh them. NICR-5

All in all, the oil drilling is clearly not an ideal thing for the city of Hermosa Beach. It is going to cause tons of discontent within the city. The oil may be a profitable business, but Hermosa Beach is not the spot to drill for it. We need to leave the south bay as it is, and "Keep Hermosa Hermosa".

Yours sincerely,

Rollie Nichols

Terri Dinubilo

From: Matt Padilla <mp4d@hotmail.com>
Sent: Monday, March 17, 2014 11:22 PM
To: City Clerk
Cc: tnielsen@mbusd.com
Subject: Input on Drilling in Hermosa

3005, Walnut Avenue
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hello. My name is Matt Padilla. I am a Sophmore at Mira Costa High School and a resident of Manhattan Beach. I am one of the many who oppose the oil drilling in Hermosa. In this letter, I'd like to assess the problems with oil drilling in Hermosa Beach.

One reason why I am opposed to this because of how it will affect the community. 50% of Hermosa's population lives within a 0.5 mile radius of the proposed drilling site. They will be critically affected by the noises and toxic odor of the drilling site. This also makes Hermosa Beach and the surrounding cities less desirable for tourists, as well as lower property values. PADM-1

Another reason is that the drilling of oil will not be environmentally friendly. Without a doubt, drilling for oil will cause pollution. Toxic odors and smog will definitely make the south less desirable to visitors. If there is a single oil spill in our beautiful ocean, there will be a huge crisis. All our beautiful wildlife here will be at risk.

My final reason is that it is a bad deal for Hermosa Beach, The presence of an oil and gas drilling operation and pipeline will lower property values. Which, in turn, will decrease taxes and revenues to the city. The last thing that most people want is more taxes

Other people who don't oppose the drilling might say that there are some advantages to the drilling like, it might give people more jobs. However, the increase in jobs might lead to more traffic on main streets like PCH or Sepulveda. PADM-2

This is why I oppose the drilling of oil in Hermosa Beach. Thank you so much for listening to my discussion.

Yours sincerely,

Matt Padilla

From: Marci Palla [mailto:marcipalla@yahoo.com]
Sent: Monday, April 14, 2014 9:02 AM
To: Oil Project; Cheryl Cross
Subject: EIR review

Hello,

After reading the executive summary of the EIR report, I was quite impressed with the thoroughness of the mitigations. My only comment is that I really think we should use the alternative where the permanent Proposed City Maintenance Yard is constructed prior to Phase 1, and the temporary maintenance yard is not constructed. This would save the community money and also decrease the amount of disturbance caused by construction. PALM-1

Thank you for your hard work,
Marci Palla
219 1/2 30th Street

Subject: Oil & Gas Storing and Loading Operations in Hermosa Beach

June 14, 2014

Please reply to Robert E. Payne
532 The Strand
Hermosa Beach, CA 90254
310-376-1488

RECEIVED
APR 14 2014
COMMUNITY DEV.

To: Hermosa Beach City Council Room 103

Dear Sirs & Madams to whom this may conern:

PAYR-1

I am a PhD Physicist with a major in Physics and also happen to have extensive experience in chemistry and in oil & gas refining operations. I worked summers at the Laboratory Testing Facility for Continental Oil Company when I was going to college. The laboratory was at their refinery in Artesia, New Mexico.

One of my responsibilities at the refinery was to remove the covers from the tank cars to confirm that they had been properly steam cleaned to remove any residual fuel before they could be reloaded. I was required to take special instructions on removing the covers of the tank cars (including electrically grounding them before trying to remove them since there was a danger of creating sparks that could cause an explosion of the vapor in the tank.) While releasing this vapor into the atmosphere in Artesia presented no problem, doing this in Hermosa Beach would create a very serious problem in contaminating the atmosphere. At the very least the vapor in the empty tank cars must be passed through a suitable scrubber (probably liquid) that will remove the vapor and not allow its release into the atmosphere in Hermosa Beach; otherwise the atmosphere in Hermosa Beach will become seriously contaminated. This must be done in a closed loop system! The liquid in the scrubber must also be disposed of properly.

Very truly yours, Robert E. Payne

From: Sam Perrotti [mailto:sperrotti1@verizon.net]
Sent: Monday, April 14, 2014 4:11 PM
To: Ken Robertson
Subject: Comments on DEIR

Ken,

I am not sure if my comments apply to the DEIR or the development agreement.

If the oil drilling proposal is approved by the residents and the project proceeds forward, I would like the gas pipeline constructed with a vinyl sleeve. That would provide additional protection against ground movement especially during an earthquake. PERS-1

Take care.

Sam

1315 Corona Street
Hermosa Beach, CA 90254
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I am contacting you concerning the oil drilling that is being debated in Hermosa. I understand that you must get a lot of these, and that this whole thing has caused quite a headache. I am a student of Mira Costa, and I am writing this letter for a school assignment. I hope that this fact will not detract from my opinion of the matter, although I am only a Junior in High school. I live and have grown up in Hermosa Beach, and I believe that this decision will impact my peers and I; we are the future of this city. I do not share the same views as the rest of this community. I believe that Hermosa Beach should allow the proposed oil drilling and that our city will benefit from it. Consenting to drilling will help our community financially, as well keep our city from being hassled by other drilling companies. It will also contribute to the well-being of our country. PERL-1

Nobody wants to be in debt, or have to deal with financial trouble. America is already dealing with a recession, and I along with anyone in Hermosa would not want to see the city struggle with that. This project is an amazing opportunity to have a nice cushion to keep us from that. E&B's president says we could be getting 15 percent from oil and gas revenue. This can help us to break away from having to rely so heavily on the bar business, and clear up all the problems that come along with that. 5 percent of royalties goes to Macpherson, which should get them off our backs. 20 cents of each barrel sold will go to our school district, which is another benefit to Hermosa beach locals, especially those who have children in the district. PERL-2

Once we allow E&B to start drilling and they are established in our city other drilling companies would be kept away from Hermosa. I'm sure E&B would not want any competitors drilling as well and will do a good job of keeping them away. As I mentioned above this will also help to erase the conflict with Macpherson. Although E&B is going to be here for a while, that will ironically benefit us as well. By the time they leave, and have drilled out everything there will be nothing else for other companies to go for. If we give them permission now, eventually oil drilling in Hermosa will no longer be an issue. If we keep fighting this there will be more and more companies every year, which is only going to cause more tension in the community. PERL-3

Hermosa Beach has a rare opportunity to help out our country by drilling. Our oil will go to American pumps, or exported to other countries, both would help to boost the U.S. economy. Even if this only raises the economy in a minor way, it shall encourage other communities similar to us to do what we have done. It's all part of a domino effect. For too long Americans have foolishly refused things that are common sense and have paid for it later. Oil drilling is one of those things. Why are we so scared to be patriots? Why do Americans fear being brave? I don't understand it, but we are allowing ourselves to walk farther and farther down a path of destruction. We have let the majority hush our voices and sweep away good and morals. Specifically in our community this majority has taken the form of the party and bar scene. We are known for it too, shipping in people in from the valley area on party buses so they can get wasted and desecrate our beloved town. This is only because we made it this way, because we backed down, we crumbled, and we were weak. Its time to make a change, and hopefully we can stop indulging ourselves in irrational political beliefs. PERL-4

Of course with oil drilling there must be great caution taken considering that oil drilling has gone wrong before. Those against oil drilling argue that drilling here could result in an oil spill, something that would be damaging in many ways. Fortunately E&B it taking every precaution, and will slant drill, underground instead of setting up oil rigs out in the ocean which would be both a worry and an eye sore. There is no possibility that the oil will leak and pollute the ocean. E&B is well aware of our query concerning that and have taken every precaution to ensure that our land stays unsoiled. PERL-5

I am willing to take a step forward. I unlike the majority am ready to do something that is unpopular, but can yield great rewards. The people of Hermosa need to stop and realize that there is great gain from this project. The power resides with them, and I am one of them. I think forward, I think towards my future, and my peers future, and maybe even our childrens' future. I am for drilling in Hermosa. I am for doing things that will strengthen our country. PERL-6

Yours sincerely,

Lincoln Personius

-----Original Message-----
From: Lauren Pizer mains [mailto:laurenjeanne@sbcglobal.net]
Sent: Monday, April 14, 2014 1:10 PM
To: Oil Project
Subject: Lauren Pizer Mains DEIR PUBLIC COMMENTS

Photos and images sent in separate email.

April 14, 2014

City of Hermosa Beach/
Community Resources
1315 Valley Drive
Hermosa Beach, CA 90254

ATTN: Ed Almanza/Proposed Oil Project
RE: SUBMISSION OF PUBLIC COMMENTS to DEIR

Dear Ed,

Please find my comments below. Thank you for the countless hours that you and the rest of Community Development have put into this proposed impactful project. I appreciate the amount of information that is being processed under tight time constraints.

Sincerely,

Lauren Pizer Mains
518 The Strand
Hermosa Beach, CA 90254

BIOLOGICAL "RESOURCES" &
RISK OF CONTAMINATION/STORM DRAINS:

Relating to environmental contamination from accidents, pipe failures, spills, chemical processing and waste:

- DEIR indicated that impacts were most likely to happen on Herondo. However, There are two (2) water runoff/storm drains leading to beach and ocean directly adjacent to the proposed oil drilling and production project. These drains are located at 6th Street and Cypress and should be clearly noted as hazard and concern. Additional drains are located just down the block at Valley and 8th (2 large drains). One large drain is located directly in line with the project at the bottom of 6th Street (west side of Hermosa Avenue. This property is on a rise-contaminents could flow in several directions down hill and thru neighborhood streets as well and then into the sea. (REF: BIOLOGICAL RESOURCES, SECTION 4.3, PAGE 21) PML-1

CORRECTION:

- Correct the blocks/distance from seashore. This project is four, at best five, blocks away. An alley is not a street and our street to street blocks are smaller than most.

- Distance a spill would need to travel to reach the ocean is 0.40 miles; to the beach environment (biological site) distance is 0.31 miles. The closest drain is 0.01 miles. (REF: BIOLOGICAL RESOURCES, SECTION 4.3, PAGE 21)

DESCRIPTION OF NEIGHBORHOOD BUSINESSES IS MISLEADING:

- Revise descriptions of businesses in neighborhood, Descriptions of existing and planned uses which are already very modest uses of an M1 district. Include the Buddhist Meditation Center-directly across street; include the designer furniture showroom; include NUWORK, the collaborative creative co-work office space-which is just feet away from the proposed project; include the recording studio which is close by; the t-shirt design shop and include the new exercise studio on Cypress. Also, It is also not possible for vibrations from drilling not to negatively impact the businesses which share a wall, basically, with this property on the north side. (PROJECT DESCRIPTION; SECTION 2; 2.7) PML-2

CLARIFICATION/REAL IMAGES/PLEASE CORRECT and ADD the FOLLOWING:

The photos used in the report should note that they **are "Simulated" photos**, many provided in coordination with the project applicant. I also noticed that the applicant has removed the word "simulated" from their photos as well. Please add in the word simulated.

Please also replace some of the photos used with real examples of what the tanks, equipment and walls will look like. What will a 32' high wall look like if you are walking in the neighborhood? What will site look like with the existing trees along Valley removed? What does a drilling rig actually look like? What do the large tanks look like? Mandated barbed wire? Warning signs? Use actual photos. These items would be visible above the permanent wall. PML-3

The trees depicted are not "minimum 24 boxed trees". Please use visual of 24" trees. To shield "sound wall" 3 story high trees would need to be planted.

It is unlikely that the simulated trees and other landscaping depicted in the photos would survive. It is too close to a very compact site. H2S and other odors destroy plants. This should be noted.
(REFERENCE: Numerous photos throughout.)

REQUEST TO REMOVE A MITIGATION ITEM:

Request that the "odorant masking" (odor suppressant sprays, etc.) items be removed from mitigation measures for odors. The gas company ADDS an odorants to natural gas as a warning to residents and businesses that a dangerous situation is occurring. I would rather be warned of any chemicals in the air and other fumes. Children with asthma and their parents need to know when they would need to avoid these neighborhoods and/or when to stay indoors with windows closed.
(REFERENCE: SECTION 4.2 AIR QUALITY IMPACTS, 4.2-52)

PML-4

BIOLOGICAL IMPACTS:

This is how the DEIR describes the presence of Sea gulls: Abundant along coastal areas. Nests on coastal islands. **Likely to be occasionally present in small numbers on Beach habitat.**
Our beach is less impacted than many other beaches along the bay. We have large numbers of birds and other sea animals that populated our beach and local waters.

Monarch butterflies are "not in project" but are in area. They are severely threatened. They were given no ranking or special notation.

Grunions are not noted. The Hermosa Beach shoreline is a well-known and important spawning ground. They are not an abundant species.

Please add Gray Whales to Endangered Species chart. Also, compared to their overall number, it is a significant number (not low percentage of total population) of whales that visit our coast.

Observed many loons in local waters. Overall, Biological Resource section needs enhancing regarding impacts.

PML-5

WHAT IS A Light Manufacturing Zone?

In the Draft EIR, where suggested “threshold levels” are categorized (I believe regarding sound levels), thresholds are not noted for an M1 zone. Therefore the M1 is swept into a broader “M” zone which would include heavy industrial. Why? In order to offer clarification, here are descriptions or distinctins between types of manufacturing zones. PLEASE INCLUDE CLARIFICATION AND INCLUDE THE FOLLOWING-or EQUIVALENT DESCRIPTIONS:

"light" industry (M1):

The industries locating in this district are characterized as lower in intensity, cleaner, and generally more compatible when located adjacent to commercial areas than are heavy manufacturing uses. Restricted industrial districts are intended to permit only those light industrial and other uses that will not generate excessive noise, particulate matter, vibration, smoke, dust, gas, fumes, odors, radiation and other nuisance characteristics. Restricted industry is capable of operation in such a manner as to control the external effects of the manufacturing process, such as odors, vibrations, emissions, or other nuisance characteristics through prevention or mitigation devices and conduct of operations within the confines of buildings. PML-6

And here's a purpose and intent statement for a **heavy industrial district**:

Heavy industrial districts are intended to provide suitable areas for manufacturing, assembling, fabrication and processing, bulk handling, storage, warehousing and trucking. The uses associated with this district are likely to generate significant levels of truck traffic, noise, pollution, vibration, dust, fumes, odors, radiation, radioactivity, poisons, pesticides, herbicides, or other hazardous materials, fire or explosion hazards, or other undesirable conditions. Conditional uses permitted in this district are primarily those known to create a safety hazard or produce particulate matter, thus being subject to various state and/or federal environmental laws. Heavy industrial districts are highly unsuitable adjacent to residential districts and are generally unfit for the sustained activity of humans and animals. Therefore, uses involving human activity such as dwellings, care centers, and certain commercial uses are not permitted. Conditional uses require impact statements to determine their compatibility with adjacent and nearby uses. Activity at heavy industrial sites consists predominantly of trucks, rather than passenger vehicles, and the road system is built to support truck traffic. Provisions for pedestrians are not required.

This property is adjacent to creative businesses, to a sidewalk where children walk to school or bicycle to the park. It is close to and surrounded by recreation areas and residences. Re-zoning for heavy manufacturing of this type in this area is incompatible with existing conditions and is an unavoidable safety impact.

SAFETY:

DEIR should note that this project fails to meet the recommended safety measures suggested by the American Petroleum Association, on their website. There is not enough spacing between the 40’ wide processing tanks and the other production equipment nor the flare which will be burning off byproducts nor the driveway for the trucks to load and unload crude oil. The flare is too close to the street, to the sidewalk, to other structures. How close are the running engines to 1,000 of gallons of this unstable mix of liquids, gasses, drilling mud, hydrogen sulfide, and more. Does the applicant plan to park cars on the site as well? Where? Adjacent to the tanks, wells, drilling and processing equipment? As it is there is no room for safety equipment-or it has not been adequately included in the planning or any schematics. PML-7

Safety planning along with specific traffic plans are items that will not be addressed until after the election. I would like them to be addressed in more specifics now. There are a number of other deferred items that need addressing before vote.

LAYDOWN AREA:

Laydown area and parking structure that E&B may use on Cypress

What is the size-square footage- of the actual useable laydown area in the underground parking structure on the corner of Cypress and 6th? It is much smaller than what one would expect for a proposed project of this size. How does this compare to other laydown areas for other oil production and drilling projects? It is a narrow strip of space with some rafter areas which are currently storing the owner's construction materials-wood boards, cement, etc.

Where will the large trucks carrying the miles upon miles of pipes and the other large equipment unload? On Cypress? How often will Cypress Avenue be closed due to unloading and due to then finding ways to transport materials to the drilling site? I would anticipate that the number of truck trips is underestimated as storage capacity is limited. More trips could be needed to deliver materials.

So will we be looking at closures on Valley, 6th street and Cypress Avenue, in addition to Bard Street near City Hall? PML-8

PARKING:

The DEIR and the applicant have miscounted the number of spaces currently available for public use on evenings and weekends. The need to revise to include the missing parking space.

The parking plan is non-specific.

The applicant has entered a tentative agreement to purchase a site on Cypress for employee parking. Is this for passenger vehicles or for trucks or for a combination of the two. The proposal calls for trash containers and other items which will take up space for parking. They are indicating that 20 spaces can be created? How? How many buildings would they need to demolish to construct. Another adjacent building overlaps the property line. Will that building and business go away as well? Have the number of truck trips per day been recalculated to include hauling away materials from these buildings as well as the construction materials that would need to be cleared out from the proposed laydown area? PML-9

To be determined after the election, according to the DEIR, is whether E&B will find another location in the city for other workers or if those workers will be shuttled from a "remote" site. I'd like this to be better thought out.

Where are the trucks going to park? Where are they going to unload?

DISPLACED CITY YARD WORKERS and HB City EMPLOYEES:

Would like a specific plan addressing the exact number of public spaces on Valley Drive near Clark Stadium and in the Community Center Parking lot that the city would plan to transfer from public use to city/city yard worker spaces. The city has already converted public spaces along Valley (9), along Bard, and in the Community Center since the last General/Coastal Plan. PML-10

TRAFFIC/DAILY TRUCK TRIPS AND OTHER VEHICLES

Finding it difficult to understand how the project would be limited to a maximum of 18 truck trips per day for a project that is proposing to drill and construct 34 wells (some very long), demolish and remove buildings, excavate a very uneven hilly site, construct a pipeline and more.

I compared the number of TRUCK trips that E&B told the Department of Conservation that they anticipated for their McDonald AntiCline Project in Kern County. This project has a third of the wells – just 10 wells – is 2.27 miles from the nearest residence, flat, without buildings to demolish and clear, etc.

Table 28
Maximum Daily Vehicle Trip Generation during the Drilling Phase for EACH WELL:
Vehicle Type
One Way Trips Per Well
Crane 2
Water Truck 2
Worker Transport – Light Truck/Passenger Cars 16
Heavy Duty Trucks/Semi - Mobilization and Demobilization of Equipment 30
Heavy Duty Trucks Semi – Normal Operations 8
Total Trips 58
(E&B did offer to paint the rigs with "camouflage" colored paints so that they "blend into" scenery.)

PML-11

#2) The DEIR should note the max. weight allowed on Valley now (3 tons) and compare the weight of the trucks this proposed project would generate and how much they would be loaded with equipment (cranes, pipes, etc) and with crude oil. How much over current limit?

3#) Max width for trucks could be up to 10' (per consultant). Valley Drive is 24' wide from CURB to CURB. It is currently a Safe Route to School Street. Please clarify in report if Valley (and Ardmore) will be turned into one way streets to provide a safer distance from the large trucks. Will Valley and Ardmore remain two lanes or one? Will parking be removed from Ardmore? Or parts of Valley? Will we need to scrap plans for a Sharrow or bike lane per the South Bay Bicycle Plan? The Pedestrian Safety Assessment Study, another study that our city invested in, suggested widened sidewalks and landscaping. It looks like we will be narrowing sidewalk and making it less safe. What is the plan?

Sharing Valley with crude oil trucks and rigs with children walking, children and other skateboarding and bicyling is a recipe for disaster.

CLARIFICATION / CORRECTION REGARDING THE NUMBER OF PLANNED WELLS:

- The community has been told that they plan to drill a maximum of 34 wells – 30 for oil extraction and four (4) for waste and water injection.
- Page 4.1-27 describes 30 wells and five (5) injection wells. Please correct or revise throughout, including any maps and drawings to reflect that the applicant is seeking to drill an additional well.
  (REFERENCE: AESTHETICS AND VISUAL RESOURCES, SECTION 4.1, PAGE 27)

PML-12

CLARIFY LIKELIHOOD OF BUILDING 3.5 MILES of PIPELINE:

- Language should clearly note that this may not happen. Also, include original language from city not revised (vague language) from E&B:
  - FROM CITY (USE THIS): The offsite underground pipeline for the transport of oil to an area refinery via a connection to a valve location in the City of Torrance would be constructed for a distance of approximately 3.5 miles in one of three potential pipeline scenarios that would transverse **through the Cities of Hermosa Beach AND Redondo Beach and Torrance. The selection of the pipeline route would depend on the ROW negotiations between the Applicant and the various cities that have yet to be conducted as well as the results of this EIR analysis.**
  - E&B edits (FYI): *The selection of the pipeline route would occur after the Project approval.*
- That two other municipalities must study and approve. Much negotiation is involved.
- That this is a very costly option. For a project like this, it may be unlikely for this option to seriously move forward.
- It takes time to build and 3.5 miles is not that far away for E&B to truck the crude. They won't have to pay for expensive pipeline, won't have to share percentages with cities (easements/royalties?) and pipeline operators.
- The DEIR should readjust truck emission, truck transportation, truck trip figures to reflect this option.

PML-13

Change language: Removal of landscaping, removal of trees, removing of curbs, narrowing of sidewalks are not improvements. Change to 'PROJECT ACCOMMODATIONS":

"The Proposed Oil Project would include the construction **of improvements** to the intersection of 6th Street/Valley Drive to provide the necessary turning radius for the Project-related trucks turning southbound on Valley Drive from 6th Street. **These improvements** would result in: the removal of a portion of the landscaped area and entry driveway to the Beach City Self-Storage Facility; redesign of the sidewalk on the southwest corner of the intersection; relocation of the stop sign and striping for the northbound lanes on Valley Drive to address the redesign of the southwest corner; removal of a utility pole and underground the utilities on the southwest corner of the intersection **is not an improvement but a safety requirement to remove obvious fire hazard next to oil production** facility; removal of a utility pole and underground the utilities on 6th Street; and the removal of two on-street parking spaces on 6th Street which are part of the City's coastal Preferential Parking Program. As a part of the intersection improvements, the stop sign and striping for the southbound lanes on Valley Drive would be relocated to allow for adequate line of sight with the addition of the perimeter fencing on the Project Site. Also, removal of four large trees along Valley Drive, is not an improvement." PML-14

ADDITION TO EXECUTIVE SUMMARY:

Other residents have suggested a briefer version of DEIR be produced. I would note that the executive summary provides this. However, perhaps an addition to this would be a list noting all the items that will still be unclear and undetermined at the time of the vote to decide if we overturn our city's longstanding ban on oil drilling. Included would be Safety Plan, Whether or not a pipeline to Torrance would actually happen-and language noting that both the Cities of Redondo Beach and Torrance would have to approve it. E&B requested replacement language that is much less clear. I ask that this be clarified. PML-15

Winds:

Wind are described as moderate. Recent winds demonstrated strength of winds. Although contaminants do dissipate the farther they are from a source, H2S can impact people in extremely minute amounts. Chemical explosions have a large footprint. Note that residents in the Inglewood Oil Field are impacted 1,000 or more feet from the drilling site; the neighborhood in the Allenco Oil Field project was severly symptomatic and that the area of interest to investigate neighborhood contamination from the Excide plant (although heavy manufacturing of a different material) was as far as 4,000 or more feet away. Notably, contamination is not restrained by a wall. PML-16

[LAUREN PIZER MAINS/LAST PAGE OF PUBLIC COMMENTS]

AdChoices

Distance: 0.31 Miles

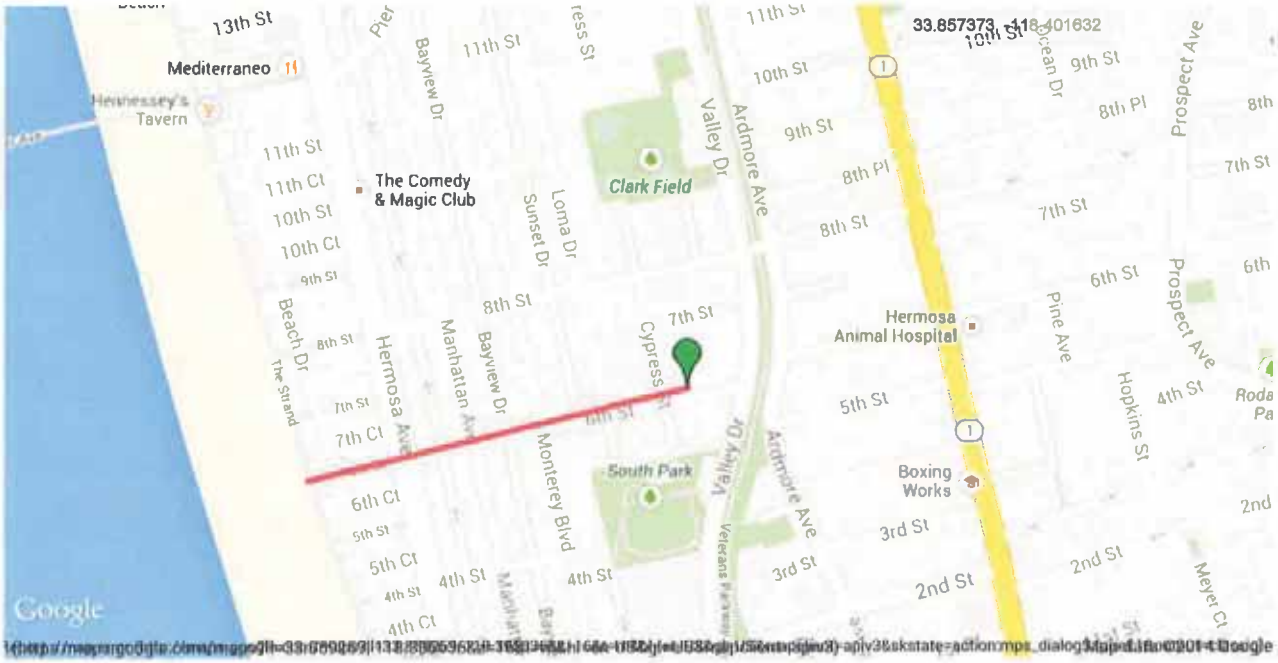
555 6th street, hermosa beach Go!

Undo Last Leg

Clear Map

Snap to Roads

Auto Center



AdChoices

Distance: 0.40 Miles

555 6th street, hermosa beach Go!

Undo Last Leg

Clear Map

Snap to Roads

Auto Center

AdChoices

▶ Distance ▶ Map Find Distance ▶ 5K Run Distance ▶ Walkin

Distance: 0.01 Miles

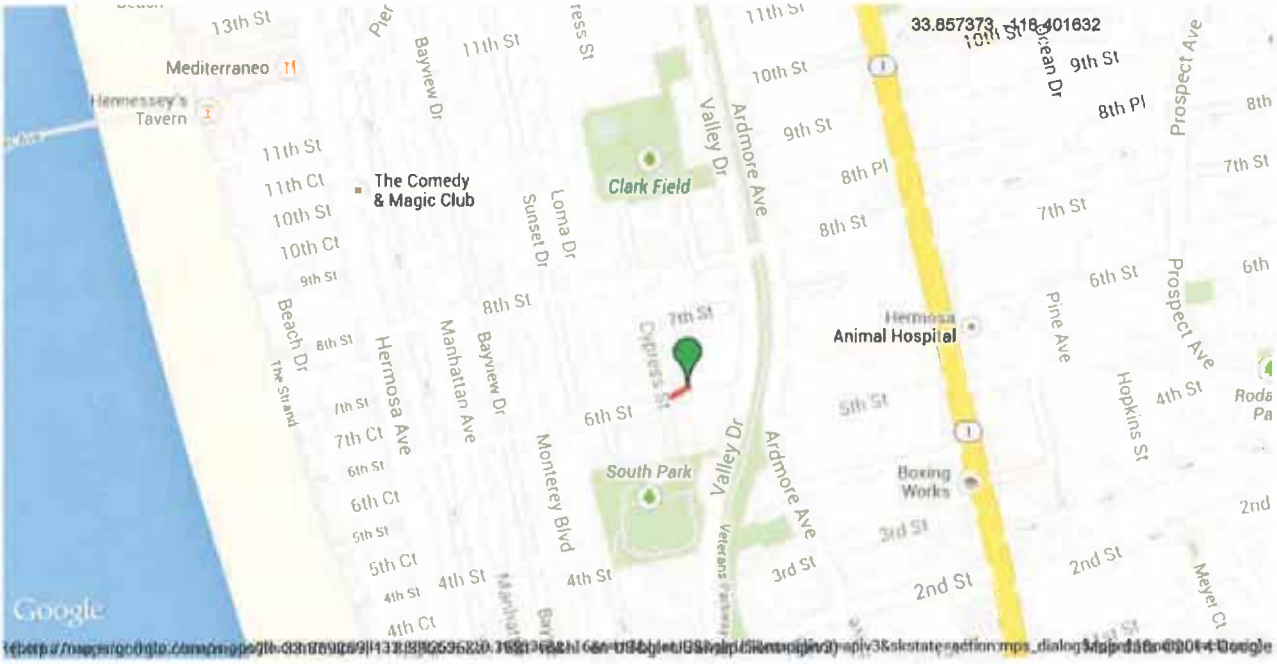
555 6th street, hermosa beach Go!

Undo Last Leg

Clear Map

Snap to Roads

Auto Center



▶ Cycling Walking ▶ Running Track

From: Jd Preletz [mailto:jdpreletz@yahoo.com]
Sent: Wednesday, April 02, 2014 10:00 AM
To: Oil Project
Subject: Health Impact Assessment - Proposed E & B Oil Project

Attn Mr Ken Robertson:

Ref. Appendix A: Summary of LA Urban Oil Drilling Sites

For each location listed, in the past 20 (or 10) years, how many hospitalizations and deaths were attributed to site operations? PREJ-1

JD Preletz
(310)372-8888

From: Richard Pruetz [mailto:Rickpruetz@outlook.com]
Sent: Friday, April 04, 2014 7:07 AM
To: Ken Robertson
Subject: Oil DEIR Comments

Hello Ken: Attached are my comments on the Oil DEIR. Ed Almanza contacted me for a copy of my draft comments but I decided to just finalize this and send it to you. I would appreciate it if you would forward a copy to Ed.

Thanks a million, Rick

Rick Pruetz, FAICP
(310) 749-5535
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April 3, 2014

Mr. Ken Robertson
Community Development Director
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, CA 90254

RE: Comments on DEIR – E&B Oil Development Project

1) The Project Description is inadequate because the applicant has submitted a project plan that cannot be adequately analyzed. Per CEQA, the description of the project shall contain information "…needed for evaluation and review of the environmental impact" (CEQA Guidelines Section 15124). As one example, the applicant has submitted a site plan for the 1.3-acre site that does not meet safety codes and guidelines and is

> "…challenged to provide sufficient spacing between equipment and between equipment and areas offsite due to the small size of the site. For example, the current design of the facility has the compressors, the low pressure separation equipment, the VRU and the flare all located within the containment areas for the crude oil tanks. If a crude oil spill were to occur, crude oil would impact this equipment and substantially increase the ignition probabilities, leading to an almost certain crude oil fire in the event of a spill" (4.6-20).

The DEIR attempts to deal with this apparently representative site plan with Mitigation Measures SR-1a and FP-2a, the later quoted as follows: PRUR-1

> "The applicant shall ensure that design and construction comply with applicable codes and standards for equipment spacing, particularly those related to flare location and distances to public areas and distances from well drilling equipment to buildings. If this cannot be achieved, additional requirements shall include the construction of thermal radiation barriers or insulation on the crude oil tanks, installation of thermal barriers/walls around the flare stack, increasing the height of the flare stack during drilling, relocation of the flare stack, providing thermal radiation modeling to estimate the impacts of equipment on the crude oil tanks and process piping and pubic areas. Fire rated barriers shall be established, as per

> LACFD requirements, to ensure that all buildings within 100 feet of well drilling would be protected from thermal radiation. The design and construction compliance status shall be verified by third party audits under the direction of the City" (8-22).

Deferring site design until after project approval, denies the decision makers, Hermosa Beach voters, of the information they need to make their decision. If in fact, the applicant is allowed alternatives to strict compliance with codes and standards, as the DEIR strongly suggests will be necessary, are the safety risks higher or lower? We won't know until after the vote. What are the aesthetic and noise as well as safety impacts of the alternatives mentioned in Mitigation Measure FP-2a: "…thermal radiation barriers or insulation on the crude oil tanks, installation of thermal barriers/walls around the flare stack, increasing the height of the flare stack during drilling, relocation of the flare stack…"? The DEIR does not discuss the impacts of these alternatives because the applicant has declined to submit a design that can be fully analyzed. According to the CEQA Guidelines:

> "If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed" (CEQA Guidelines 15126.4(a)(1)(D).

In this case, we don't know what effects the mitigation measures might have because the redesign will occur after the EIR is completed and the vote is taken.

Possibly this problematic Project Description could be fixed without a new project application, but Mitigation Measures SR-1a and FP-2a postpone the creation of mitigations measures rather than establish them. According to the CEQA Guidelines section on Mitigation Measures Proposed to Minimize Significant Effects:

> "Formulation of mitigation measures should not be deferred until some future time" (15126.4(a)(B)).

The studies and actual project design referenced in Mitigation Measures SR-1a and FP-2a should be performed now and included in the EIR so that the decision makers can read whether or not the equipment spacing codes and standards can be met, whether workarounds will be needed, whether these workarounds increase or decrease safety and whether these workarounds themselves have significant impacts that must be mitigated or, if mitigation is not possible, added to the list of significant unavoidable adverse impacts.

This problem is not limited to the 1.3-acre drilling/processing site. The applicant has also declined to submit designs for the oil field infrastructure (boreholes, wells and downhole pumps) needed to extract the oil/gas and dispose of the

project wastes. As detailed later in these comments, the DEIR contains a "representative figure not-to-scale" cross section of a hypothetical well (Figure 2.8). Rather than estimate the scale of the oil field infrastructure, the DEIR forces readers create their own estimate by saying that the wells: "…would have a measured depth of approximately 9,000 feet" (2-22). An aerial photograph, Figure 2.7 Proposed Project Oil Lease Areas (Figure 2.7), has four test wells drawn on it but Appendix A: Project Description Design Data has this graphic labeled as "Anticipated Location of Test Wells" (A-33). (Apparently, even the location of the first well will not be finalized until after the vote.) I could not find any graphic showing the location (anticipated, potential or hypothetical) of all 34 wells, forcing DEIR readers to use their imaginations to understand the scale and impact of 58 miles of oil field infrastructure beneath the City and its tidelands. (58 miles is my estimate: 9,000 feet per well times 34 wells.)

Perhaps it is common in the oil industry to prepare an actual project design after approval. But the citizens of Hermosa Beach deserve to know the full scope and impact of this project *before* being asked to vote on it not after.

2) By my calculation, the DEIR partially responds to only four of the ten comments that I submitted at the Scoping stage. Perhaps other residents are also disappointed by the amount of attention paid to the concerns that they expressed last July. This level of responsiveness may result because the City is deferring to the consultants to determine which comments will be addressed in the EIR rather than directing them to respond to all pertinent citizen questions and concerns. To begin with, CEQA clearly makes the Lead Agency, in this case the City of Hermosa Beach, responsible for the document:

> "Before using a draft [EIR] prepared by another person, the Lead Agency shall subject the draft to the agency's own review and analysis. The draft EIR which is sent out for public review must reflect the independent judgment of the Lead Agency. **The Lead Agency is responsible for the adequacy and objectivity of the draft EIR** (CEQA Guidelines 15034).

PRUR-2

I think the peculiarities of this project require heightened attention to citizen comments. Specifically, the voters will have to give a thumbs up or down to the project but the voters will not be able to decide whether or not the EIR is adequate. The City Council in its capacity as the Lead Agency will certify the EIR. Consequently the EIR preparers should defer to the voters and give them all the information that they ask for in order to make their decision.

I do *not* expect City staff to substitute their opinions for the expertise of the consultants. But someone should ensure that the EIR responds to questions posed by citizens last July during scoping. For example, I asked last July for the DEIR to reference independent studies of the effectiveness of the borehole sealing process as a way of preventing contamination of groundwater aquifers. The DEIR responds by saying DOGGR rules and oversight assure protection and

that DOGGR has been given a stamp of approval by way of a peer review by the Ground Water Protection Council. This peer review is not easy to find since the DEIR does not offer a title or date. More problematic is the fact that the DEIR does not mention a 2011 report conducted by EPA that leads me to question why the DEIR places so much faith in DOGGR rules and performance (as discussed below). The DEIR is probably right in stating that we have to rely on DOGGR. But that does not mean that the DEIR should suggest that this reliance means our groundwater will be safe. After all, the voters have the opportunity to reject this project if they ultimately decide that the risks outweigh the benefits. The decision makers have a right to know about the risks of injecting acids, chemicals and wastes below the groundwater aquifers and hoping that they will go where we want them to go and stay there. Again, it may be industry standard to say that groundwater protection is DOGGR's responsibility, but the EIR is a City document and the City should ensure that its document fully discloses what it means to rely on DOGGR.

For the reasons stated above, I also believe this particular EIR also has a higher burden to meet CEQA's standards for Evaluation of and Response to Comments:

> "In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice" (15099(c).

When the time comes to certify the Final EIR, the City Council will be asked to certify that: "3) The final EIR reflects the lead agency's independent judgment and analysis" (CEQA Guidelines 15090). It may be easy to technically comply with this certification requirement. But certification of the EIR should not become a mere technicality. Good mitigation measures provide real protections in the event that the project is approved. And an analysis that supports its conclusions will give the voters a better understanding of whether or not to approve the project. For example, I think Table ES.2 should show 13 rather than 10 categories as significant unavoidable adverse impacts in Construction/Drilling/Re-drilling and 12 categories rather than 5 as significant unavoidable adverse impacts in Operations. The EIR preparers may disagree but they should fully explain and support their conclusions so that the voters can make up their own minds.

3) On page 4.0.3, the DEIR states:

> "Measures that have been incorporated as part of an Applicant's Project design are considered design features and are not considered as mitigation measures under CEQA. If they eliminate or reduce a potentially significant impact to a level below the significance criteria, they eliminate the potential for that significant impact since the 'measure' is a component

PRUR-3

> of the action. However, if the Project is approved, the Applicant-proposed measures would be part of the conditions of approval" (4.0.3).

Some of the design features listed in the sections of Chapter 4 seem like they could be reworded as conditions of approval without too much ambiguity. However, others are too vague to be actionable and would strike the decision makers, meaning the voters, as unenforceable. In short, the decision makers should see them worded as conditions of approval so that they can decide for themselves whether or not they really provide the protections that the EIR assumes they will provide once they are actually written as conditions of approval. For example, as stated in Safety, Risk of Upset and Hazards:

> "The Applicant has proposed additional design features which would further reduce the risk levels of the facility. These include the following:
>
> - Rather than using a shutdown system utilizing cascading shutdowns, if a problem occurs, the entire facility would shut down…(4.8-56).

What is a "problem"? Is a problem a catastrophic accident? If so, the impact has already occurred. So, to be a meaningful protection, meaning something that prevents a problem before it happens, the word "problem" should be defined in a condition of approval that specifically states that the whole facility shall be shut down when indicators x, y or z occur. Admittedly this could be a long list of indicators given the number and type of gauges etc in the project. But without these details, we don't know if the design feature is actually "reducing the risk levels of the facility" or merely noting the logical fact that it would be in the best interest of the operator to shut the facility down as fast as possible after an accident. If such indicators of an impending problem have already been articulated, they should be stated in that condition of approval or cited so that readers can easily find them. If these details have not yet been put in writing, now is the best time to iron out any possible differences of opinion about what the triggers should be. This process of actually writing design features as actionable conditions of approval could result in conditions of approval that some might not find as comforting as the DEIR suggests. In contrast, if these conditions of approval are written at some point in the future, after the EIR is completed, EIR readers will not have all the information needed to arrive at their own conclusions about the extent to which these design features provide meaningful protections. To be meaningful, proposed design features should be written as conditions of approval and placed in the EIR now, not written at some future time after the voters have already formed their opinions about the risks of this project.

Perhaps the issue of fracking is another good example. I could not find the issue of fracking in the Proposed Project Design Features section of Water Resources section, but I did find the following later on:

> "The Applicant has stated in the Proposed Project Application that no high volume/high pressure fracking would occur during oil and gas productions activities; therefor, fracking is not proposed and cannot be undertaken under this Proposed Project application and the impact need not be evaluated in the EIR" (4.14-13).

Despite the fact that this does not appear in the Design feature section, it will hopefully still become a condition of approval at some point. Furthermore, I would have greater faith in the assurance of a "no impact" conclusion with a condition of approval drafted with enforceable langauage. Possibly something like: the applicant shall not use any form of fracking, defined as pressures exceeding X psi, etc. The benefit of putting a detailed condition of approval in the EIR is that it would resolve possible disagreements about what exactly the applicant is prohibited from doing.

The Water Resources section states:

> "The [produced] water can contain minor amounts of chemicals added downhole during production" (4.14-11).

Is this a reference to acids and other oil field stimulation techniques? If so, this should not be necessary since the applicant has characterized this as a free-flowing oil field, which should not need stimulation. Yet I did not find any 1993 conditions of approval, mitigation measures or proposed project design features prohibiting the use of acid or other forms of oil field stimulation. Perhaps the applicant has agreed to such a limitation but the Water Resources section does not include it because it assumes is that there will be no holes or leaks in the 58 miles of bore holes and wells and therefore it makes no difference what is put down these wells. It would relieve voter concerns to see an actionable condition of approval in the EIR that prohibits all forms of oil field stimulation including acids. If the EIR doesn't include a mitigation measure or condition of approval with this prohibition, the EIR should discuss the possible impacts of acids and other stimulation treatments on groundwater in the event that the 58 miles of pipes and boreholes leak. As the CEQA quote above states, conclusory statements will not suffice. The EIR cannot conclude that it is safe to put acids and wastes down these holes just because DOGGR is responsible for groundwater safety.

4) DEIR Cover – The three graphics on the DEIR cover, (aerial of 6th & Valley, aerial of City Yard relocation site and image of drill rig shroud) do not adequately illustrate that this project includes 34 oil/reinjection wells with miles (58+ miles?) of boreholes/pipes with downhole pumps slant-drilled under most of the city and its tidelands. This omission could cause citizens to think that the project will not affect them when in fact the project will impact the entire city. I don't think the aerial of the four test well locations (Figure 2.7) or the cross section of a single slant-drilled well (Figure 2.8) tell the whole story either, although adding either or PRUR-4

both of these graphics to the cover would be an improvement. Ideally, a graphic should be prepared for the cover showing the potential locations of all 34 wells. This graphic could be in plan view or an oblique view conveying the fact that 34 wells will be drilled under most of the city and its tidelands. If the EIR preparers report that such a graphic cannot be prepared because the applicant has not provided the necessary information, a note on the cover and every other graphic of "the project" should say in bold letters something like: "The project also includes 34 boreholes/wells slant drilled beneath most of the city and its tidelands but the applicant has not submitted plans or drawings for this oil field infrastructure."

5) ES-3 Figure ES-1, Proposed Project Location, shows the project sites as the current and relocated city yards when in fact the project location also includes the miles (58+ miles?) of boreholes/pipes and other oil field infrastructure to be drilled and operated beneath most of the city and its tidelands. As I stated in my comment on the DEIR cover, a graphic should be prepared for Figure ES1 and every other graphic of the Project Location depicting the proposed or potential locations of all 34 wells. This graphic could be in plan view or an oblique view conveying the fact that 34 wells will be drilled under most of the city and its tidelands. If the EIR preparers report that such a graphic cannot be prepared because the applicant has not provided the necessary information, a note on Figure ES-1 and every other graphic of Project Location" should say in bold letters something like: "The project location also includes 34 boreholes/wells slant drilled beneath most of the city and its tidelands but the applicant has not submitted plans or drawings for this oil field infrastructure." PRUR-5

6) ES-7: In Table ES.2, Safety and Risk of Upset receives a significant unavoidable impact score in the Construction/Drilling/Re-drilling column but is not listed as a significant unavoidable adverse impact for Operations. The accident scenarios for Operations can be just as deadly as those for Construction/Drilling/Re-drilling (See Figure 4.8-5). However, the DEIR deems Safety to be a less than significant impact in Operations because the accident scenarios in Operations are not expected to occur as often as the accident scenarios in Construction/Drilling/Re-drilling and the significance threshold, which is borrowed from Santa Barbara County, considers the frequency of a scenario as well as the number of people killed or injured by a scenario.

This would be a good opportunity for the City to use its own independent judgment and analysis as suggested by CEQA Guidelines Section 15034 quoted above. Does the City believe that the operation of a facility capable of killing people within 260 feet (which would include the greenbelt, streets and sidewalks) is not a significant unavoidable adverse impact? The fatality/injury consequences of 10 accident scenarios are shown on Figures 4.8-5, page 4.8-70. Seven of the nine fatal accident scenarios occur during Operations rather than Construction/Drilling/Re-drilling: gas plant ruptures, Scenarios 3, 4 and 5, pipeline ruptures and leaks, Scenarios 6 and 6b, crude oil fires, Scenario 8 and PRUR-6

refrigerant rupture, Scenario 10a, all occur during Operations rather than during Construction, Drilling/Re-drilling (4.8-64 and 65). Consequently, I ask the City to consider changing Safety and Risk of Upset to a significant unavoidable adverse impact for Operations either by modifying the threshold of significance as proposed below in my Comment 30 or by rerunning the Quantitative Risk Analysis (as detailed in my Comment 33) using inputs that recognize the fact that the applicant has submitted a non-code-compliant site plan that includes "…equipment arrangements that place spark-producing equipment within the containment, which could possibly be mitigated, but as the site is very small, these impacts may not be able to be completely mitigated' (4.8-78).

7) ES-7: In Table ES.2, the DEIR indicates that Fire Protection and Emergency Response is not a significant unavoidable adverse impact in either Construction/Drilling/Re-drilling or Operations. As detailed in my Comments 19, 20 and 21 below, DEIR section 4.6, Fire Protection and Emergency Response, states that a project ",,,would be considered to have a significant impact in fire protection and emergency response if…the Project equipment layout and access structure do not meet the API, NFPA, IFC and IRI or CAL FIRE recommendations for equipment spacing and clearances;" (4.6-14). The DEIR then says the project is

> "…challenged to provide sufficient spacing between equipment and between equipment and areas offsite due to the small size of the site. For example, the current design of the facility has the compressors, the low pressure separation equipment, the VRU and the flare all located within the containment areas for the crude oil tanks. If a crude oil spill were to occur, crude oil would impact this equipment and substantially increase the ignition probabilities, leading to an almost certain crude oil fire in the event of a spill" (4.6-20).

PRUR-7

Despite these code violations, the DEIR concludes that Fire Protection and Emergency Response is not a significant unavoidable adverse impact because of Mitigation Measure FP2a which requires a redesign of the facility to meet these codes (4.6-21). This redesign would occur after the November vote has been taken (8-22). The DEIR provides only examples of these code violations rather than discussing all of them. The DEIR strongly suggests that the project will not be able to comply with spacing requirements due to the small size of the site and will likely seek alternative solutions and Mitigation Measure FP2a provides some workaround examples such as thermal radiation barriers and increased flare stack height. In short, the DEIR does not provide the decision makers with the full extent of code violations, a full explanation of the workaround remedies that the applicant might seek for each violation, the extent to which these "remedies" might provide less protection than full compliance with the code or the extent to which some of these "remedies" might exacerbate impacts in other areas. As stated elsewhere, the design of this facility should occur now and the results included in the EIR.

However, even in the unlikely event that the project design concludes that all spacing requirements can be met, I believe that the Fire Protection and Emergency Response category should nevertheless be checked as significant and unavoidably adverse in both Construction/Drilling/Re-drilling and Operations. The events that could occur at this 1.3-acre site in the middle of a densely-developed city would definitely impact fire protection and emergency response regardless of the probability of these events occurring. As a reminder, the potential mishaps include flame jets, fires, vapor clouds, flammable and toxic clouds, explosions and/or boiling liquid expanding vapor explosions (4.8-3). Yet the DEIR concludes that the impact on fire fighters and emergency response would be less than significant. Again, this is an opportunity for the City as the Lead Agency to use its independent judgment per CEQA Guidelines Section 15034. In the independent judgment of the City, does it make sense to conclude that a project capable of killing people within 260 feet (which would include the greenbelt, streets and sidewalks) does not present an impact on fire protection and emergency response that is not significant and unavoidably adverse?

8) ES-7: In Table ES.2, the DEIR indicates that Geology does not pose a significant unavoidable adverse impact in the either Construction/Drilling/Re-drilling or Operations. As detailed in my Comment 22 below, the DEIR states that the proposed project would be significant if it exposes people or structures to loss, injury or death caused by earthquakes (4.7-18). The NMG geotechnical report does not address the possibility of loss, injury or death if an earthquake topples the 87-foot high drill rig or the 110-foot high workover rig. Given the small size of the 1.3-acre site, toppled drill/workover rigs could easily land on oil tanks gas processors and other oil/gas equipment.

Furthermore, the DEIR acknowledges that some oil extraction has induced earthquakes (4.7-21) but states that the DOGGR would require a step test so that: “Maximum allowable surface injection pressure would be less than the fracture pressure, thereby minimizing the potential for earthquakes and surface ground cracking” (4.7-21) “In the event that motoring indicates that Proposed Oil Project-induced seismicity is occurring, water flood operations shall be adjusted to alleviate such seismicity” (4.7-22). Subsidence is also identified as a potentially significant impact but the DEIR claims that it is reduced to less than significance by Mitigation Measure GEO4b: “In the event that the Global Position System monitoring indicates that subsidence is occurring in and/or around the Proposed Project area, wastewater or water reinjection operations shall be increased to alleviate such subsidence” (4.7-26). Despite the fact that Mitigation Measure GEO4b says that reinjection “shall be increased”, these increases may not be possible if it is determined that more pressure could cause induced seismicity (or potential contamination of the aquifers overlying the oil-bearing formation). I urge the City and its consultants to change Table ES.2 (as well as the determination in the Geology section of the DEIR) to indicate that the Geology impacts are significant and unavoidably adverse in Construction/Drilling/R-drilling and Operations unless and until the EIR PRUR-8

convincingly answers questions about how reinjection can resolve conflicting subsidence/induced seismicity goals and how well the drill rig and workover rig can withstand earthquakes.

9) ES-7: Table ES.2, does not include impacts for the Water Resources section of the DEIR, Section 4.14, possibly because the determinations of impact significance resulting from DEIR sections 4.9 Hydrology and Water Quality and 4.14 Water Resources have been combined in Table ES.2 (even though Table ES.2 includes only a title of "Hydrology" for this row). The City and its consultants should give Water Resources its own row in Table ES.2 and indicate that the impacts to Water Resources are significantly and unavoidably adverse due to groundwater threats that differ from the significant and unavoidably adverse impacts to surface waters (oil spills into the marine environment) acknowledged under "Hydrology" in Table ES.2.

As detailed in my Comment 41 below, the DEIR Section 4.14 discusses potentially significant threats to groundwater quality:

> "The injection wells would pass through these freshwater deposits creating water quality impacts as a result of well leakage and/or inadvertent migration of wastewater from the point of injection upward through the formation as a result of frak-outs, which are uncontrolled releases of produced water from the formation" (4.14-12).

The water separated from oil and gas in production, called produced water, will be forced down the injection wells and produced water ",,,can contain minor amounts of chemicals added downhole during production" (4.14-11). PRUR-9

> "Produced water can also contain high concentrations of salts, metals, hydrocarbons and organic compounds, sulfur, treatment and workover chemicals, dissolved gases (particularly carbon dioxide), bacteria and other living organisms, dispersed solid particles, scales, and other pollutants" (4.14-11.)

The DEIR states that these wastes will be disposed using Class II injection wells consistent with a program developed and overseen by DOGGR. The DEIR mentions that DOGGR's injection program was favorably peer reviewed in 2002 but does not mention a 2011 study for EPA that, in my opinion, seems critical of DOGGR's quality control (see my Comment 44 below). In short, the DEIR does not reveal what chemicals and wastes E&B will be allowed to inject into the well or the potential hazards associated with these chemicals and wastes. It places great faith in DOGGR diligence and the bottom-injected-cement sealing process designed to ensure that the chemicals and wastes go all the way down to the oil-bearing formation and stay there rather than migrating up the 34 boreholes that E&B proposes to drill through the aquifers underlying the City. The DEIR does not cite an independent study of the effectiveness of the sealing procedures other than to say that, after the cement hardens, a devise is lowered into the well designed to detect flaws in the cement jacket on the other side of the well pipe. The DEIR does not discuss what happens if this device detects flaws or gaps that might allow chemicals and wastes to access the aquifers via the boreholes.

Since the proposed mitigations do not assure protection of groundwater aquifers, the City and its consultants should add the Water Resources category to Table ES.2 and indicating that the project poses a significant unavoidable adverse impact to Water Resources during Construction/Drilling/Re-drilling as well as Operations.

10) ES-7: Table ES.2 lists noise as a significant unavoidable adverse impact during Construction/Drilling/Re-drilling but not during Operations. However, the DEIR does not discuss whether or not residents above any of the downhole pumps (possibly 30) will hear any noise or feel any vibration. The following two sentences might apply to drilling and downhole pumps which could occur anywhere beneath the City rather than at or near 6th and Valley.

> "The way that vibration is transmitted through the ground depends on the soil type, the presence of rock formations or man-made features and the topography between the vibration source and the receptor location. These factors vary considerably from site to site and make accurate prediction of vibration levels at receptors distant from the source extremely difficult (often impossible) in practice" (4.11-5 and 6).

The lack of certainty in those two sentences leads me to question whether or not we will hear/feel downhole pumps. In addition, I could find no discussion of the noise impacts from workovers, which could occur up to 90 days per year for the 25 year life of the project albeit during daylight hours. As detailed in my Comments 36 and 37 below, due to these continuing unknowns, the City and its consultants should change Table ES.2 to indicate noise/vibration as a significant unavoidable adverse impact in Operations as well as Construction/Drilling/Re-drilling. PRUR-10

11) ES-7: Table ES.2 lists aesthetics as a significant unavoidable adverse impact during Construction/Drilling/Re-drilling but not during Operations. However, a footnote that says the workover rig does pose a significant unavoidable adverse impact. To avoid confusion, the first box for Aesthetic impacts in the Operations phase should say that the impacts are significantly and unavoidably adverse. PRUR-11

12) ES-7: With the changes proposed in my comments 6 through 11, Water Resources would be added to Table ES-2 and 13 rather than 10 categories should be checked as significant unavoidable adverse impacts in Construction/Drilling/Re-drilling: Aesthetics (2), Air Quality, Biology, Fire Protection/Emergency Response, Geology, Hydrology, Land Use, Noise (2) Recreation, Safety/Risk of Upset and Water Resources. Also, rather than 5 categories, 12 categories would be checked as significant unavoidable adverse impacts for Operations: Aesthetics (workover rig), Air Quality, Biology, Fire Protection/Emergency Response, Geology, Hydrology, Land Use, Noise (2) Recreation, Safety/Risk of Upset and Water Resources. PRUR-12

13) Page 2-22: The Project Description states: PRUR-13

> "The wells for the Proposed Oil Project would be at a true vertical depth of approximately 3,000 feet and a measured depth of approximately 9,000 feet. The actual well depth would vary depending on the area targeted" (2-22).

The DEIR does not provide an estimate of the total length of the oil field infrastructure or explain why it has not been provided. Presumably this lack of information stems from the uncertainty of oil drilling. But it should not prevent the City and its consultant from preparing an EIR that estimates a worst case scenario in terms of total potential project scale. If this information is not available, the DEIR should add a statement whenever the project is described indicating that the total length of the oil field infrastructure is not included because the applicant has not provided it. Again, it may be oil industry practice to fully plan and describe a project after approval but the City and its consultants should disclose to the decision makers that they have not yet seen the full extent of this proposed oil facility.

14) Page 2-25: This page adds in a bullet point: "Completion of the well, including installation of down-hole pumps and tubing" (2-25). The term "down-hole pump" appears in several places in the DEIR but I could not find any explanation in the DEIR or Appendix A of what is being proposed. I learned at the March 8 open house that these are electric pumps located at the bottom of each production well. The FEIR should add this description and discuss the potential impacts of this component of the oil field infrastructure. PRUR-14

15) Page 2-31: Again discussing the borehole encasement, the DEIR states: "Once the cement has been allowed to fully harden, another electric logging tool, called a cement bond log, is lowered to the bottom of the well to evaluate the completeness and effectiveness of the cement on the outside of the production casing" (2-31). The DEIR does not explain what happens if the cement bond log determines that the cement job is ineffective. An article about the BP Deepwater Horizon disaster explains that if the cement job is defective, the liner (the casing?) can be perforated so that more cement can be squeezed into the borehole gaps. Would that be the remedy for this facility? If so, what is the life expectancy of a perforated casing? At the March 8 open house I learned that another remedy for a defective cement seal is removal of the pipe and redrilling the borehole. Are the noise/vibration impacts of drilling a new borehole through the defective cement encasement more or less severe than drilling the original hole? Please explain all this in the EIR. PRUR-15

16) 4.1-91: On this page, the DEIR declines to clearly identify the workover rig as a significant unavoidable adverse aesthetic impact. However Table ES.2 clearly says: "During Workovers significant unavoidable impacts would occur for aesthetics" (ES-7). The City and it consultants should change the text of section 4.1 to clarify that the workover rig, a 110-foot tall structure that could be on site PRUR-16

as much as 90 days a year for the 35-year life of the project, poses a significant unavoidable adverse aesthetic impact in the Operations category.

17) 4.2-52: Here the DEIR concludes that because sensitive receptors are close to the facility (100 feet from businesses, 160 feet from residences, 55 feet from green belt and 20 feet of public sidewalk) it would be difficult to reduce the "…number of odor events to less than six per year (which is the SCAQMD definition of a "nuisance")…"(4.2-52 and 53). Is there any way for the EIR to make a more meaningful estimate of odor events than "six or more per year"? If the consultants actually predict odor events to occur 60 or 600 times per year, that estimate should be included in the EIR. PRUR-17

18) 4.2-66: Figure 4.2-8, Cancer Impacts Cancer Cases: Mitigated, shows an area that I estimate as being larger than five acres in size exposed to a one in a million cancer risk, which is judged to be less than significant. Even though the AES project in Redondo Beach was listed as a cumulative project on page 3-2 of the DEIR, cumulative impacts are not analyzed according to the DEIR because:

> "Localized air quality impacts are generally restricted to an area within a few blocks from a project site" (4.2-68).
>
> "The AES project in the City of Redondo Beach, approximately 0.5 miles south of the Project Site, and the Proposed Project would not overlap localized criteria pollutant impacts since they are too far from one another to produce cumulative impacts" (4.2-68).

PRUR-18

First of all, AES seems less than 0.5 miles from 6th and Valley. Second, is the DEIR relying on an established criterion of "a few blocks" or has the DEIR concluded that the impact areas would not overlap without actually analyzing the impact area from the AES site? If the latter, the EIR should model the cancer risks from the AES site to see if these one in a million cancer risk impact areas overlap.

19) 4.6-20: This page of the DEIR states:

> "The Proposed Project is particularly challenged to provide sufficient spacing between equipment and between equipment and areas offsite due to the small size of the site. For example, the current design of the facility has the compressors, the low temperature separation equipment, the VRU and the flare all located within the containment area for the crude oil tanks. If a crude oil spill were to occur, crude oil would impact this equipment and substantially increase the ignition probabilities, leading to an almost certain crude oil fire in the event of a spill" (4.6-20).

PRUR-19

Instead of giving one or two examples of code deviations, the EIR should identify and explain each and every irregularly. If the EIR consultants doubt that the applicant can meet these codes, the EIR should say so, particularly when the

applicant has had ample time to design a site plan and yet has submitted a project that fails to meet applicable code and standards.

20) 4.6-21: The DEIR states that a project ",,,would be considered to have a significant impact in fire protection and emergency response if…the Project equipment layout and access structure do not meet the API, NFPA, IFC and IRI or CAL FIRE recommendations for equipment spacing and clearances;" (4.6-14). However the DEIR mitigates this potentially significant impact to less than significance with Mitigation Measure FP2a, which allows deviation from "applicable codes and standards" if the applicant cannot meet them by using various remedies like thermal shields and insulation on crude oil tanks. The DEIR has not fully described these alternatives to code/standard compliance or evaluated whether or not these remedies would in fact reduce potential impacts to less than significance. As stated in my Comment 7 above, the facility should be designed now and the results reported in the EIR. Even in the unlikely event that the redesign meets all spacing requirements, the EIR should show Fire Protection and Emergency Response as a significant and unavoidably adverse impact in Construction/Drilling/Re-drilling as well as Operations for the reasons stated in my Comment 7. PRUR-20

21) 4.6-20-21: The alternatives to code/standard compliance contained in Mitigation Measure FP-2a may create or exacerbate impacts in other issue categories. Would the "construction of thermal radiation barriers/walls around the flare stack create new aesthetic impacts? Would "increasing the height of the flare stack" create new noise as well as aesthetic impacts? After the actual project design is completed, the EIR should analyze and discuss these issues. PRUR-21

22) 4.7-20: The DEIR here concludes that the GEO1 impact of exposing people and property to earthquake-generated harm is not significantly adverse because of three mitigation measures, two of which pertain to the 1.3-acre drilling/production facility site. Mitigation Measure Geo1a requires the operator to do certain things after an earthquake has occurred and therefore does nothing to mitigate damage from the initial earthquake itself. GEO1b requires the applicant to adhere to the recommendations of the NMG 2012 geotechnical report. However, the NMG report is primarily a study of how to make the old landfill at the city yard suitable for an oil facility. The NMG report does not specifically include either the 87-foot high drill rig or the 110-foot high reworking rig in its brief project description perhaps because these structures were not classified as "construction" (NMG p6-7). Has the ability of the drill rig and the reworking rig to withstand ground motion been studied? This is not a trivial question considering what these structures could hit if they fell over in an earthquake. From the locations of the 34 well heads, a 110-foot rig that falls completely over could land on oil tanks, gas processing units and numerous other gas/oil equipment as well as on adjacent privately-owned buildings outside the 1.3-acre site and public right of way (Fig 2.17, 2-62). Apparently the DEIR assumes the applicant will evaluate the ability of the drill rig and workover rig to withstand earthquakes PRUR-22

when the final project plans are prepared. Unfortunately, these final plans will not be prepared until after the project is approved. Consequently, the decision makers, the voters of Hermosa Beach, are being asked to make their decisions with an inadequate analysis of the project's earthquake-related safety. The City and its consultants should change the Geology impact to significantly and unavoidably adverse on page 4.7-20 and in Table ES.2 unless and until assurances of earthquake safety can be supported.

23) 4.7-17: The DEIR acknowledges that oil wells can cause subsidence and at times this subsidence can be severe, as in the Willington Oil Fields where oil extraction caused the ground to sink 29 feet (4.7-9). The DEIR offers a program of monitoring and reinjection as the answer:

> "The program would ensure that subsidence would not occur to the degree that it could endanger the facility, surrounding property/structures, shoreline areas, and offshore areas" (4.7-17).

The verb "ensure" is initially reassuring until the reader questions what the word "endanger" means in this context? Hopefully, at a minimum it means that homes won't be swallowed by sinkholes. But is the DEIR also "ensuring" that homeowners won't be plagued by misaligned doors and windows as well as cracks in floors, walls and pavement? The FEIR should clarify this point. I would argue that even minor wall, door and floor damage amounts to a significant impact if it occurs within even a portion of the thousands of homes and other structures that lie above the oil field that E&B wants to drain. PRUR-23

24) 4.7-25: Mitigation Measure GEO4a requires a sophisticated subsidence monitoring program. However, the DEIR fails to quantify what constitutes actionable subsidence, in other words, how much sinking must occur before E&B/DOGGR acknowledges that subsidence is occurring? Mitigation measure GEO4b is hazy on this point:

> "In the event that the Global Position System monitoring indicates that subsidence is occurring on and/or around the Proposed Project area, wastewater of water reinjection operations shall be increased to alleviate such subsidence" (8-26).

Why does the DEIR not use the detailed subsidence mitigation action plan proposed in the appendices, which include specific responses at identified subsidence levels including the reduction or halting of production from wells in the subsidence zones at the direction of the overseeing agencies (Geosyntec 2012 Appendix A). The FEIR should explain why these details have been omitted because the lack of defined criteria for the term "subsidence" provides no clear point at which corrective action will be attempted. PRUR-24

25) Secondly, even when everyone agrees that subsidence is occurring, there are reasons to question how soon subsidence can be corrected once it is detected and acknowledged. The DEIR points to the 29-foot subsidence problem in the Wilmington Oil Field: PRUR-25

> "Subsidence stopped when water injection into the pumped oil field occurred, thereby filling the voids from the oil extraction" (4.7-9).

However, in the appendices, the Geosyntec report adds a significant detail:

> "It took approximately ten years for the subsidence to completely stop after the re-pressurization program was initiated in 1958" (Geosyntec 2012, p32).

The pressure used in the reinjection process is constrained because reinjection itself can trigger induced seismicity and according to Appendix I may be the main cause of induced seismicity:

> "Significant increases and decreases in reservoir pressure may cause induced seismicity, but most often induced seismicity is associated with large increases in reservoir pressures that may result from injecting fluids back into the reservoir" (Geosyntec 2012, p45).

The DEIR acknowledges that excessive injection pressure can induce seismicity and states that DOGGR will reduce the potential for induced seismicity by monitoring the pressure of the reinjection process:

> "Maximum allowable surface injection pressure would be less than the fracture pressure, thereby minimizing the potential for earthquakes and surface ground cracking" (4.7-21).

The EIR should fully explain how it can make assurances that injection pressure can reduce both subsidence and induced seismicity impacts to less than significance given the conflicting goals of the reinjection process: too little injection pressure and the reduction/elimination of subsidence could take more time (causing more cracks etc) but too much pressure could induce earthquakes.

26) 4.6-22: Mitigation Measure GEO2c states that if induced seismicity is occurring, water flood operations shall be adjusted to alleviate such seismicity. The EIR should discuss whether this GEO2c would be enacted even if subsidence monitoring indicates that a reduction in injection pressure would be detrimental to the effort to reduce subsidence. PRUR-26

27) The EIR should justify concluding that induced seismicity from the project will not create a significant unavoidable impact considering the weak assurances provided by the supporting text such as: "…should not experience an increase in seismicity" and "…water-induced seismicity along this fault is not expected" (4.7-21). PRUR-27

28) 4.7-23: The DEIR here states that the project would cause a potentially significant adverse impact if it results in subsidence. Curiously, the DEIR does not use measurements of the amount of ground deflection that qualifies to be called subsidence. Since it is undefined, this significance threshold could reasonably be interpreted to mean that *any* subsidence is a significant impact. The DEIR then says subsidence "is not expected" (4.7-24). Furthermore it says: PRUR-28

> "Although reinjection of produced water in proposed injection wells would substantially reduce the potential for subsidence, such reinjection does not ensure avoidance of subsidence. Therefore, impacts would be *potentially*

> *significant* in the absence of subsidence monitoring to verify that subsidence is not occurring" (4.7-24).

In other words, the DEIR offers as a mitigation measure a monitoring program that will tell us when a significant impact has already occurred (again, since the lack of a definition for subsidence can reasonably interpreted to mean than any detectable subsidence is a significant adverse unavoidable impact.) The EIR could add definitions for the amount of subsidence deemed significant, as proposed in the Geosyntec appendix. But as pointed out above in my comments above, DOGGR has to worry about excessive as well as deficient oil field pressure, which may explain why the DEIR promises weak results from the injection program:

> "Consequently, oil field operations will be conducted under the oversight of DOGGR and will be designed to reduce the potential subsidence as much as possible."

A goal of reducing subsidence "as much as possible" should alarm every owner of property in Hermosa Beach. With this amount of uncertainty, the City and its consultants should change GEO Impact 4 to a significant unavoidable adverse impact on page 4.7-25 as well as Table ES.2.

29) 4.8-78: On this page, the Safety, Risk of Upset and Hazards section of the DEIR states that the project would cause significant and unavoidable impacts in Operations as well as Construction/Drilling/Re-drilling apparently before mitigation. On page 4.8-79, the DEIR concludes that after mitigation, the project would still cause significant adverse impacts because "…the blowout scenario cannot be mitigated to a level of insignificance…" (4.8-79).

The DEIR uses phrases like "…minimize the ability of the flare to ignite a spill of crude oil", "…minimize the chances of igniting a crude oil spill", and "…reduce the ignition probability given a crude oil spill" before suggesting (it doesn't actually state this opinion but forces the reader to infer) that mitigation measures SR-1a though SR-1g mitigate impacts *in operations* to a less than significant level. (I believe a reader has to use Table ES.2 to figure out that the DEIR considers operational impacts to be less than significant after mitigation, assuming Table ES.2 is correct.) The City should ask its consultants if the discussion of residual impacts on page 4.8-79 does not actually say "impacts to operations will be mitigated to less than significance" because residual operational impact was determined by the Quantitative Risk Assessment (QRA) and it might be difficult to demonstrate how mitigation measures have actually been incorporated in the QRA, particularly when the equipment failure rates come from all-inclusive databases. If so, the City should consider replacing the QRA results as a significance threshold (as proposed in my Comment 30) or alternatively use inputs to the QRA that more closely represent the potential hazards of the 1.3-acre project proposed by the applicant (see my Comment 33). PRUR-29

30) 4.8-62: The DEIR describes certain accidents associated with the Operations phase that produce release scenarios that rival the consequences of potential release scenarios during drilling. For example, Scenario 2, Wellhead Release During Operations, would occur after drilling and "…include wellhead or piping failures, valve failures, loss of well control (blowout) or releases during well workovers or re-drills" (4.8-62). Similarly, Scenarios 2, 3 and 4 occur in the Operations phase and involve gas plant ruptures such as "…piping failures, vessel failures, valve failures, heat exchanger failures or compressor failures" (4.8-64). These scenarios can cause flame jets, fires, vapor clouds, flammable and toxic clouds, explosions and/or boiling liquid expanding vapor explosions (4.8-3). The distance at which fatalities can occur range from about 220 feet for Scenario 2 to 260 feet for Scenario 4 (4.8-70). These distances expose people and property outside the 1.3-acre site to these Operational hazards yet the Quantitative Risk Assessment (QRA) concludes that the potential impact is insignificant apparently based on the Santa Barbara County criteria in which the number of people within the death/injury range of an accident scenario is multiplied by the assumed frequency of that scenario to yield a frequency/number risk factor that is either more than 1 death per million hours (significant) or less (insignificant). So the assumed inputs (persons exposed, type of mishap and mishap frequency rates) are critical to determining whether these impacts are significant or not. Perhaps in Santa Barbara County the consequences of being wrong about these inputs is not as important as it is here. A map of oil/gas facilities in Santa Barbara County primarily shows off-shore platforms linked to processing facilities in mostly remote locations (http://www.sbccountyplanning.org/energy/who/oil_gasMap.asp). So perhaps it makes sense for Santa Barbara County to rely on fixed input assumptions since the risk there appears to be primarily to oil/gas workers. That is not the case in Hermosa Beach. A Scenario 4 gas plant rupture could cause fatalities at roughly 260 feet, far beyond the property lines of the 1.3-acre city yard site and include: businesses, residences, streets, sidewalks and the recreational greenbelt. In short, the City should use its independent judgment and consider adoption of its own significance threshold, one that is more appropriate for a facility located in a fully developed city as opposed to a facility located in a largely unpopulated rural area under county jurisdiction. I would suggest a very simple significance threshold: if an oil/gas facility has the potential to kill people beyond the project site, it is a significant unavoidable impact for safety in Operations regardless of the assumed likelihood of such an event. PRUR-30

31) I prefer a simple threshold like the one proposed in my comment above because an average reader can actually understand it. In contrast, the Quantitative Risk Assessment (QRA) which the DEIR uses to arrive at a conclusion of insignificance in Operations cannot be understood by the average reader. The Appendix C calculations that convert several incident probabilities into a single frequency estimate for each accident scenario involve fault trees, meaning the series of events necessary for the scenario to be realized. Only a petrochemical engineer would be able to tell whether or not these fault trees PRUR-31

create a conservative (meaning worst case) analysis as the DEIR asserts. Page 4.8-6 says that each accident scenario assumes at least one rupture and one leak. Is that assumption conservative? Most average readers might think that a truly worst case analysis would assume that all possible ruptures and leaks occur simultaneously.

32) In addition to the mysteriousness of the fault trees, the DEIR reports that the QRA calculations assume failure rates that may or may not accurately reflect the failure rates of the equipment proposed by the applicant:

> "Failure rate databases quantify how often each of these events has occurred industry-wide historically" (4.8-7).

Pages 4.8-7 through 4.8-14 then explain why these databases are in fact a poor predictor of failure rates:

> "These industry-wide failure rate databases incorporate a range of equipment, differing in design standards and equipment age" (4.8-7).
> "Industry data on the correlation between equipment age and failure rates is sparse; in fact, several studies indicate that there is no correlation" (4.8-8).
> "It should be emphasized that the approach taken to estimate the equipment failure rates in this study is an approximation. The large number of variables involved and relatively sparse information, particularly related to age influences on equipment failure rates, necessitates a best estimate approach" (4.8-14).
> "Unfortunately, failure data is not gathered specifically enough to obtain statistically significant numbers for the exact variable that match the facility" (4.8-14).

PRUR-32

The EIR should at a minimum explain why the conclusion that the project is not significantly adverse in Operations is based on a statistical calculation when the DEIR itself admits that the inputs to that calculation are not statistically significant.

33) If the City and its consultants choose to maintain their reliance on the QRA model, the QRA should be rerun based on the project plan submitted by the applicant, meaning a project plan that violates an unknown number of safety codes and standards. As argued throughout these comments, we don't have a final project plan to evaluate. We don't know whether the facility will be able to meet these codes/standards, whether the applicant will resort to alternative fixes or whether these fixes will be safer or less safe than the project submitted by the applicant. In the absence of this information, the QRA inputs should be adjusted to reflect the truly worst case scenario presented by the site design submitted by the applicant rather than on assumptions about the future project plans (to be submitted sometime after the vote):

PRUR-33

> "For example, the current design of the facility has the compressors, the low temperature separation equipment, the VRU and the flare all located

> within the containment area for the crude oil tanks. If a crude oil spill were to occur, crude oil would impact this equipment and substantially increase the ignition probabilities, leading to an almost certain crude oil fire in the event of a spill" (4.6-20).

The DEIR acknowledges that:

> "Ideally, the most accurate data would be obtained from several facilities exactly like the Proposed Project, using the same methods to gather data, the same type of equipment, and the same services over many years. Unfortunately, failure data is not gathered specifically enough to obtain statistically significant numbers for the exact variable that match the facility" (4.8-14).

However, the QRA inputs could still be modified to reflect the fact that the plans submitted by the applicant contain an unknown number of code/standard violations. The DEIR has demonstrated the prudence of making adjustments to the failure rates gathered from the data bases, (for example, adding a factor of 2.0 to represent the failure rate of older equipment when the project is more than 20 years old on Page 4.8-9.) In a similar fashion, the QRA could add factors to the data base failure rates to account for code/standard violations of the equipment spacing in the applicant's submitted plans. For example, the Gas Plant Rupture scenario might have the failure rate estimated in Appendix C when using pipe, valve and vessel failure rates developed from the data base. But it seems prudent to add a factor to this failure rate in recognition of the fact that:

> "…current design of the facility has the compressors, the low temperature separation equipment, the VRU and the flare all located within the containment area for the crude oil tanks" (4.6-20).

Similarly, it seems prudent to ensure that the fault trees reflect the increased likelihood of an accident scenario when equipment spacing violates applicable codes/standards as illustrated in the DEIR:

> "If a crude oil spill were to occur, crude oil would impact this equipment and substantially increase the ignition probabilities, leading to an almost certain crude oil fire in the event of a spill" (4.6-20).

Rerunning the QRA using inputs that reflect the facility plan submitted by the applicant will likely result in the logical conclusion that operating an oil/gas production facility with 30 production wells on a 1.3-acre site in the heart of a fully developed city is a significant unavoidable adverse safety impact in Operations as well as Construction/Drilling/Re-drilling.

34) 4.9-18: Mitigation Measure HWQ-2h requires the Applicant to install and maintain an oil/grit or oil/water separator in Herondo Street downstream from Valley Drive capable of capturing small to medium sized spills before they reach the ocean. Why isn't the Applicant required to install and maintain a device capable of capturing a worst case spill? PRUR-34

35) 4.10-18: The DEIR concludes that land use impacts are significantly and unavoidably adverse in Construction/Drilling/Re-drilling as well as Operations because of the incompatibility of the facility with adjacent open space and residential land uses. However, on pages 4.10-28 and 29, the DEIR adds two paragraphs about the fact that the project might also be inconsistent with Land Use Element Policy 1 to maintain a small town beach community atmosphere and Policy 3 to encourage land uses which enhance and promote the City's Coastal environment. This section of the DEIR adds that it is unusual for an oil facility to be located in the center of a small beach city:

> "Again, although the coast of California is linked with oil drilling and development, the City of Hermosa Beach is exceptionally dense and of limited geographic area and is not currently associated with this type of industrial development" (4.10-29).

However, the DEIR goes on to claim that: PRUR-35

> "…the people of Hermosa Beach will have a direct means to make the determination as to whether the Proposed Project is consistent with Goals 1 and 3 of the Land Use Element" (4.10-29).

Even with prompting, it seems unlikely that the average voter will appreciate that, by voting for the project, he/she is also voting to find that the project is consistent with Land Use Element Policies 1 and 3. By punting this decision to the voters, the EIR is also failing to discuss and generate discussion about the importance of protecting the city's small beach town community atmosphere and coastal resources. The City should consider adding a more comprehensive discussion and analysis here of the impact of the proposed project on the small beach community atmosphere and the coastal environment using examples of comparable cities in which 34 wells have been slant-drilled beneath a fully-developed city and an oil/gas processing facility has been located on a site that is so small that spillover effects are inevitable.

36) The DEIR shows noise as a significant unavoidable adverse impact during Construction/Drilling/Re-drilling but less than significant during Operations (4.11-89). However, Table 4.11-29 on page 4.11-78 does not list downhole pump as a potential noise generator during Operations (unless one of the other pumps on this list is a downhole pump). I learned at the open house that a downhole pump is electric and sits at the bottom of a production well, which means there would be 30 of them operating for the 35-year life of the project. Will we hear or feel these pumps even though they will be operating three thousand feet below the surface? Perhaps these two sentences are intended to answer that question: PRUR-36

> "The way that vibration is transmitted through the ground depends on the soil type, the presence of rock formations or man-made features and the topography between the vibration source and the receptor location. These factors vary considerably from site to site and make accurate prediction of vibration levels at receptors distant from the source extremely difficult (often impossible) in practice" (4.11-5 and 6).

The lack of certainty in those two sentences leads me to question whether or not we will hear/feel downhole pumps. Ideally, an acoustical engineer will response more clearly to the question of whether or not we will hear/feel downhole pumps. If not, the City should consider including a review of how many complaints or lack of complaints oil companies have received when they have operated downhole pumps under cities that are comparable to Hermosa Beach. Unless the EIR conclusively states that downhole pumps won't be heard or felt during the 35 year life of the project, the City and its consultants should change the residual effects determination on page 4.11-89 and Table ES-2 to indicate that noise/vibration is a significant unavoidable adverse impact in Operations as well as Construction/Drilling/Re-drilling.

37) Workover rigs and other equipment associated with workovers are not listed on Table 4.11-29, the list of noise generating project equipment. Workovers are part of the Operations phase and could occur as much as 90 days per year for the 35-year life of the project. During workovers, a 110-foot high rig is moved to the site and transferred from well to well to hoist/replace/repair oil field infrastructure including pipes and downhole pumps. The DEIR does not discuss the noise/vibration of workovers. Workover noise could pose a problem since workover rigs may be too tall to acoustically screen (110 feet). Unless and until acoustical analysis rules out the possibility, the City and its consultants should change page 4.11-89 as well as Table ES-2 to indicate that project Operations as well as Construction/Drilling/Re-drilling pose a significant unavoidable adverse noise impact. PRUR-37

38) 4.14.2 The DEIR explains how West Basin historically imported water from the Metropolitan Water District.

> "However, given recent concerns over future reliability of these imported supplies, West Basin has been increasing its development of local supplies. Groundwater production from the West Basin service area includes the West Coast Groundwater Basin and pumping from the Central Groundwater Basin into the West Basin service area" (4.14-2).

This paragraph is hard to follow in regard to the importance of protecting the safety of groundwater aquifers overlying the proposed oil field infrastructure. Do we currently use this water or might we some day have to use these aquifers for our drinking water? The City should direct its consultants to include this information and discuss the current and future importance of these aquifers. PRUR-38

39) 4.14-3 "There are no domestic water supply wells located in the vicinity of the Project Site" (4.14-3). Why is the DEIR so vague? Does "vicinity" mean 100 feet or three miles? And in this context, what is the Project Site? The DEIR likes to use 6th and Valley as the Project Site. But for Water Resources, the more meaningful Project Site would be the 34 wells that constitute the project's oil field infrastructure since these wells penetrate the aquifer and since the applicant proposes to use four injection wells to pump wastes into the formation underlying the aquifer. I have also learned that under-producing wells are sometimes PRUR-39

converted to injection wells; therefore any of the 34 wells could potentially threaten water wells. The City should direct its consultants to identify and map all wells using the aquifer overlying the oil field infrastructure.

40) The DEIR states that this produced water injection could adversely affect groundwater but that the impacts are less than significant because 1) the injection process meets DOGGR rules, 2) the formation currently trapping the oil will also trap the wastewater and 3) the wastes are injected below the freshwater aquifer (4.14-13).

Reasons 2 and 3 sound like different wording of the same rationale and both reach conclusions with inadequate support. The DEIR does not discuss the fact that this project is essentially drilling 34 holes through the rock formation, or cap, that separates the oil/gas and wastes injected from this project from the freshwater aquifer. The DEIR concludes that wastes will not migrate through poorly sealed boreholes apparently by assuming that the boreholes will not be poorly sealed. The City should consider including in the DEIR any reports or studies of incidents in which oil facility wastes have in fact contaminated the overlying freshwater aquifers as well as independent studies, if they exist, of the effectiveness of cement injected from the bottom of a well to seal boreholes and prevent contaminants from reaching the aquifers. PRUR-40

41) In support of its reason number 1 from page 4.14-13, the DEIR concludes that the wastewater injection program does not pose a significantly adverse impact because of adherence to DOGGR rules and monitoring. However, the DEIR does not fully discuss or evaluate the impacts of various wastes and chemicals that it mentions might be put down these wells. To emphasize my concerns from my comment 8 above, produced water, will be forced down the reinjection wells and produced water “,,,can contain minor amounts of chemicals added downhole during production.” What are these chemicals? Is this a reference to an “acid job” using hydrofluoric acid to induce oil flow? Is there a mitigation measure, 1993 condition of approval or application design feature prohibiting these downhole chemicals? If so, the EIR should highlight this prohibition. If not, the EIR should describe the chemicals alluded to here, their potential impacts and whether these impacts are significant after mitigation. If the City intends to mitigate potentially significant impacts by citing DOGGR rules and oversight, the EIR it should explain the basis for that reliance in light of the 2011 EPA report reviewing DOGGR performance discussed below. PRUR-41

42) Page 4.14-11 mentions that produced water can also contain “treatment and workover chemicals”. Will E&B be using “treatment and workover chemicals”? What are they? Is there a mitigation measure, 1993 condition of approval or application design feature prohibiting these treatment and workover chemicals? If so, the EIR should highlight this prohibition. If not, the EIR should describe the chemicals alluded to here, their potential impacts and whether these impacts are significant after mitigation. If the City intends to mitigate potentially significant PRUR-42

impacts by citing DOGGR rules and oversight, the EIR should explain the basis for that reliance in light of the 2011 EPA report reviewing DOGGR performance discussed below.

43) What are the potential impacts of the other wastes that accompany produced water: "high concentrations of salts, metals, hydrocarbons and organic compounds, sulfur … dissolved gases (particularly carbon dioxide), bacteria and other living organisms, dispersed solid particles, scales, and other pollutants" (4.14-11)? Why are some solid wastes from the drilling process trucked to Clean Harbors Buttonwillow Landfill (2-31) while these liquid wastes are disposed of by flushing them down the injection wells? What are the potential impacts posed by these liquid wastes on the drinking water aquifer overlying the oil field? Does the EIR propose that the City rely entirely on DOGGR rules and oversight to ensure drinking water safety? Considering the 2011 EPA review of DOGGR rules and oversight, why should the City be convinced that wastewater injection does not pose a safety risk for aquifers? For example, as cited below in my comment, DOGGR pressure monitoring is intended (in addition to reducing subsidence and induced seismicity) to keep the disposed wastes in the oil-bearing formation rather than migrating up into the drinking water aquifer. But the 2011 EPA report found that District 1 DOGGR traditionally assumed a fracture gradient that turned out to be considerably higher than the actual gradient determined once DOGGR began requiring well operators to perform something called a step test (EPA, 35). PRUR-43

44) The DEIR states that these wastes will be disposed using Class II injection wells consistent with a program developed and overseen by DOGGR.

> "A peer review conducted by a national organization, the Ground Water Protection Council, determined that the DOGGR has a program that effectively protects underground sources of drinking water" (4.14-13).

Although the DEIR does not provide a copy, date or title for this peer review, I believe it is a reference to a 2002 report entitled *State Review of Oil and Natural Gas Environmental Regulations* prepared by California State Agencies which in fact seems to be positive about DOGGR's Underground Injection Control program.

However, I also found a 2011 Report, *California Class II Underground Injection Control Program Review*, conducted by Horsley Witten Group for EPA which at the very least raises questions about the DEIR's assertion that the DOGGR program effectively protects underground sources of drinking water. For example, in District 1 (which includes Hermosa Beach) "Currently, annual meetings are held for only 1 % of the active injection projects due to lack of resources" (EPA, 32). District 1 DOGGR traditionally assumed a fracture gradient that turned out to be considerably higher than the actual gradient determined once DOGGR began requiring well operators to perform something called a step test (EPA, 35). "In the past pressure fall-off tests were rarely performed in the district" (EPA, 36). "Many problem wells have been found since the recent District implementation of the requirement to review ZEI/AORs and require corrective PRUR-44

action as a condition for issuing permits for new drills, re-drills, conversions and return to injection operations" (EPA, 38) "Average on-the-job experience for District 1 field engineers/inspectors is about one year" (EPA, 39). "The operator is usually given advance notice of an inspection" (EPA, 41). The City should explain why Hermosa Beach residents should have complete confidence in DOGGR despite less than stellar evaluations like the 2011 EPA study. If the DEIR is claiming that DOGGR is the best defense against aquifer contamination, the voters should be given enough information about DOGGR performance to evaluate the effectiveness of that defense before making their decisions about whether to approve or reject the project.

45) The 30 production wells are expected to generate up to 16,000 barrels of produced water per day (4.14-14). I could find no explanation of what happens to that produced water if the reinjection process cannot accommodate all of it. PRUR-45

46) What I have read of the 2011 EPA report increases my concerns about the ability of the injection wells to accomplish three important goals with a single reinjection pressure. Specifically, the pressure must be kept low enough to avoid inducing earthquakes and also low enough to prevent contaminants from being forced up into the overlying groundwater aquifers. The City and its consultants should discuss this issue and evaluate whether significant induced seismicity and subsidence impacts as well as groundwater aquifer contamination can all be accomplished with reinjection considering that these goals may be in conflict with one another. PRUR-46

47) The discussion of significance of Impact WR.3 begins by saying that: "Wastewater impacts would be deemed significant if the Proposed Project would: Substantially degrade the quality of surface water or groundwater" (4.14-10). The next two pages then attempt to support the conclusion that ",,,the impacts of injection on groundwater quality would be considered adverse but *less than significant*" (4.14-13). Some of this discussion needs clarification. For example, the DEIR states that "wastewater would be processed, as described in WR Impact 2…" prior to reinjection (4.14-11). "Processing" sounds like a good idea considering the following description of this wastewater:

> "In addition, produced waters exist under high pressures and temperatures and usually contain oil and metals; therefore the water must be treated prior to being discharged. Produced waters can also contain high concentrations of salts, metals, hydrocarbon and organic compounds, sulfur, treatment and workover chemicals, dissolved gasses (particularly carbon dioxide) bacteria and other living organisms, dispersed solid particles, scales and other pollutants" (4.14-11). PRUR-47

However, the description of the processing of produced water promised in WR Impact 2 refers to the following: a three-phase separator to separate water from oil and gas; a treatment system consisting of a gas flotation and filter unit to remove excess oil and solids (such as sand); and a test to determine whether the remaining waste stream has SRB and, if so, treatment for the SRB; (4.14.10). I

could not find any discussion here or elsewhere about why the waste stream is only tested for SRB rather than for all the potentially hazardous substances also in the wastewater, meaning "…high concentrations of salts, metals, hydrocarbon and organic compounds, sulfur, treatment and workover chemicals, dissolved gasses (particularly carbon dioxide) bacteria and other living organisms, dispersed solid particles, scales and other pollutants" (4.14-11). The City should direct its consultants to support the conclusion that the impacts of injection on groundwater quality would be adverse but *less than significant* when the proposed treatment system appears to remove only oil and solids but does not apparently test or treat for any chemicals or other pollutants other than SRB.

48) The DEIR also seems to support its conclusion that the impacts of injection on groundwater quality would be adverse but *less than significant* with an explanation of how the stratigraphic and/or structural trap that creates a cap on the oil/gas formation also would trap the injected liquid wastes below that cap and therefore protect the overlying aquifers. The City should direct its consultants to describe how the drilling of 24 boreholes though that cap could compromise the current separation of the oil/gas bearing formation from the aquifers. If the response is that the boreholes are ultimately sealed with cement, the consultants should cite independent studies of the effectiveness of these cement seals in preventing the migration of wastes into the aquifers. As stated above, unsupported reliance on DOGGR oversight is insufficient. The City and its consultants should include a discussion of any independent studies of the effectiveness of borehole sealing practices as well as reports of groundwater contamination caused by drilling oil/gas boreholes through aquifers and the caps that separate aquifers from oil/gas bearing formations. Again, it is not enough to simply say that this is common practice, When the voters are asked whether the benefits of this project outweigh the risks, the City and it consultants should offer an EIR that discusses those risks. Unless and until that is done, the City and its consultants should change the Water Resource impacts to significantly and unavoidably adverse for groundwater contamination in Construction/Drilling/Re-drilling and Operations in section 4.14 and in Table ES.2 by adding a Water Resources row to Table ES.2. PRUR-48

49) The EIR should discuss the practicality of the alternatives section, beginning on page 5-1, in the context of this project. Don't the voters have to vote on the project proposed by the applicant according to the settlement agreement? PRUR-49

From: Allison Reynolds [mailto:allie.skye27@gmail.com]
Sent: Monday, April 14, 2014 1:41 PM
To: Oil Project
Subject: dEIR Comments: Hermosa Beach Oil Project

Dear Oil Project,
I have attached my comments concerning the dEIR to this email as well as copy and pasted into the body.

Thank you for your time in considering these comments.

Sincerely,
Allison Reynolds

Allison Reynolds

April 14, 2014

E&B Hermosa Beach Oil Project

Disclaimer: I read through much, but not all of the dEIR. So I sincerely apologize if my comments are redundant with existing information in the dEIR that I may have missed.

1. I spoke with my friend who works as a contractor in the oil fields to get his expert opinion on what I do not understand about this project as far as technology and engineering. His feedback was that most accidents and hazards do not occur from flaws in proposals or designs. Rather, most harmful accidents occur as a result of human error and inadequate training. Therefore, I would suggest that the dEIR include descriptions about how all of the employees are going to be trained to avoid accidents. Moreover, I suggest that it include how the employees are going to me taken care of so that their focus and attention can go towards making sure there is no failure leading to a spill. My suggestion here is that the dEIR outline how the employees will be treated. It should include the quality of amenities that are accessible to the workers, benefits, work hours, rest, and pay to ensure that the employees are happy with their work, take pride in their work, and are in fit condition to do the job properly. In addition, truckers transporting oil need to be included in this analysis because there is a big risk of accident with transport. This may not seem like it should be included in an environmental impact report, but I think it could be one of the most crucial pieces to ensuring environmental and community protection. REYA-1

2. A big concern about this project is the impact of greenhouse gasses on climate change. This affects the local area with threats to our water supply, warming temperatures, sea level rise, and loss of species and ecosystems, especially in the oceans. Another concerns is ocean acidification due to more pollutants. The dEIR touched on climate change and the regulatory climate, but I did not see any calculations on the estimated percentage that drilling activities could have on global climate change. While it is probably small, as is stated in the report, I would like to see more concrete estimations rather than statements that the impact the small. Also, I did not see any information about ocean acidification and the effects of this on marine life. REYA-2 REYA-3

3. I would love to see more details of the spill emergency response plan. Is there technology or ways to mitigate oil running down storm drains into the ocean in the case of a spill? REYA-4

4. The facility has to be built with the best and latest technology to withstand strong earthquakes. This technology should be outlined in the dEIR REYA-5

5. The water used in the injection wells should not in any way take away from our precious and dwindling water supply. The report states that the water supply is efficient enough and does not require mitigation efforts, but I've also heard figures that LA's water supply will be at 50% capacity within *7 years* which is an incredibly short time to lose 50% of our water. This is a great concern to me and I want to see more specifics in the dEIR about how the water needed in this project, which sounds like a lot, will not take away from the dwindling water supply for Angelinos. REYA-6

From: Barbara Sabo [mailto:bsabo@jsaboassoc.com]
Sent: Monday, February 17, 2014 10:53 AM
To: Oil Project
Subject: Public Review: Comments on oil project

Dear Ken,
I am the acting HOA Secretary for Beachside Condominiums in Hermosa Beach. Our HOA project is located at the corner of Valley & Herondo Streets. Our association is comprised of 30 single family homes, many with children who attend our local Hermosa Valley School. Our HOA sits across from the Moorings, another large condominium project, as well as the Play Pacifica and Gallery Apartments. These are but a few of the large housing projects that sit at our end of the City...all populated with families with children.

Our predominant concern with the oil project is the fact that it is located near such a large concentration of families whose children use Valley as their Safe Route to Hermosa Valley School, not to mention as a route to our local South Park and

SABB-1

Clark Field/Community Center. The thought of large trucks congesting our narrow stretch of Valley, not to mention the diesel pollution & noise from the trucks, makes the thought of this oil project all the more ominous and unacceptable.

I have shared and filed the mailers that have been sent by the oil project coordinators. They distinctly show an incredibly long shaft for the oil rig. SABB-2

This is our second concern. While drilling for wells in an open area is acceptable, drilling in a densely populated area is not. We well-remember the oil field located on Prospect & Del Amo across from Redondo Union High School, which is thankfully gone now. However, it took years to remove the oil & chemical residue from this property after it was gone. If memory serves, it was the City of Redondo Beach that ended up picking up the tab for that clean-up. Who will pick up the tab for our clean-up when E & B depart? SABB-3

An additional concern is: ***who is going to pick up the tab for vibration damage to the surrounding homes and businesses?*** Our HOA has been the subject of such vibration damage. Whenever a deep hole is dug in our sandy soil, there is always significant vibration. This vibration travels and leads to serious cosmetic damage, not to mention that it may also undermine structures within close proximity. SABB-4

Finally, we would like to be assured that any and all property damage, foreseen and unforeseen, is covered by E & B or the City. SABB-5

Thank you for sharing these concerns with your existing and future action committees.

Best regards,
Barbara Sabo, HOA Secretary FY 2014-15
447 Herondo Street #305
Hermosa Beach, CA 90254
(310) 379-8455

From: Lisa Santora [mailto:lisasantora@hotmail.com]
Sent: Monday, April 14, 2014 5:08 PM
To: Oil Project
Subject: COMMENT - EIR - April 14, 2014

Ken Robertson
Community Development Department
1315 Valley Drive
Hermosa Beach, CA 90254
oilproject@hermosabch.org

"(T)he people of the State of California have a primary interest in the quality of the physical environment in which they live, and that this physical environment is being degraded by the waste and refuse of civilization polluting the atmosphere, thereby creating a situation which is detrimental to the health, safety, and welfare, and sense of well-being of the people of California."

Section 39000 of the Health and Safety Code as quoted by Alston& Bird LLP (legal counsel for E&B) in a letter to the City of Hermosa Beach demanding that the City "retract and disavow" the HIA due to the harm it has caused E&B (February 16, 2014)

SANL-1

"That it is the public policy of the state that emissions of toxic air contaminants should be controlled to levels which prevent harm to the public health."

Section 39650 of the Health and Safety Code as quoted by Alston& Bird LLP (legal counsel for E&B) in a letter to the City of Hermosa Beach falsely asserting that the HIA "dismisses in its entirety all of the State standards for the protection of the environment and public health"(February 16, 2014).

SANL-2

In December 2013, the City Council of the City of Dallas approved the minimum spacing between drilling and protected uses. "The heart of this policy is the idea that residents should be able to enjoy their private property and quality of life without being subjected to the negative impacts of a nearby industrial operation." Two major changes in the industry that have occurred since 2007 that may warrant additional separation requirements, particularly in relation to residential uses and institutional uses, are the **increased number of wells on a pad site and the increased length of lateral lines (the distance the well bore travels horizontally).** Except as provided in this provision, a gas drilling and production use must be spaced at least 1,500 feet from a protected use

SANL-3

Limitations of the EIR

The Environmental Impact Report (EIR) provides a systematic, reproducible, and interdisciplinary evaluation of the potential physical, biological, cultural, and socioeconomic effects of a proposed action and its practical alternatives. However, by design, it does not systematically assess the multiple influences on health that can occur as a result of social, economic, and environmental changes. Furthermore, an EIR uses a narrow definition of health that includes physical and psychological health and general well-being. The EIR is also generally limited to regulatory thresholds rather than incorporating a broad review of public health evidence.

> "The consideration of human health impacts is a required component of the EIS, but this component has been largely discounted in the past, prompting the need for a more dedicated and comprehensive processes to address human health – the HIA." – PJ Anderson (2013)

SANL-4

Lisa Santora MD, MPH lisasantora@hotmail.com

Review of the Preparer of the EIR

Marine Research Specialists is an "environmental consulting firm". Notably, none of the listed preparers of the EIR have a background in Public Health or Medicine. The limited focus on health and well-being is objectively demonstrated by the references to health and well-being. In 1096 pages of narrative, there are only 153 instances "health," which includes multiple references to "long term health and growth of the landscape" and multiple references to onsite signs for compliance public health and safety codes; 1 reference to "well-being"; 2 references to "quality of life"; 3 references to "vulnerable" (fish x 2; storage facilities x 1); 2 references to children's health; and 1 reference to elderly. SANL-5

Hermosa Beach – Air Quality

Hermosa Beach is an urban setting with high exposures to ambient air pollution – from stationary and mobile sources. There are established putative exposures to industrial pollutants (AES, Chevron, LAX; major traffic corridors). The EIR assumes that the SCAQMD Air Quality Significance Thresholds accurately estimate health impacts. SCAQMD daily threshold (pounds per day) for particulate matter (PM) 10 and 2.5 are 150 and 55 pounds per day. Notably, in 2010, BAAQMD proposed daily thresholds of PM 10 and 2.5 at ***82*** and 54 pounds per day, respectively. Threshold models are now being reevaluated because (1) a theoretical assumption of wide-ranging human sensitivity, and (2) inability to detect thresholds in epidemiologic models. Furthermore, Threshold models do not consider vulnerable populations. SANL-6

The EIR inaccurately estimates existing air quality in Hermosa Beach. Baseline air quality measurements in EIR from SCAQMD, monitoring station – LAX Hastings (6.8 miles to the north of the Project Site). This is the oldest active air quality monitoring station. SCAQMD reports need for replacement of instrumentation and sub-systems; additionally, the system does not support continuous monitoring of PM10/2.5 SANL-7

Monitoring station location in reference to Project Site may underestimate current local pollutant levels in Hermosa Beach (e.g., location in reference to putative sources)

Regulations and Pollution

"The warm upper layer forms a cap, or inversion, over the cool marine layer and inhibits pollutants released into the marine layer from dispersing upward." (EIR, 4.2.1.1). This meteorological phenomenon has contributed to our community's current classification as Extreme and Serious Nonattainment for certain Air Contaminants. Furthermore, it demonstrates that regulations do not protect humans from harm. The EIR is a technical document that does not provide stakeholders with a comprehensible narrative to consider the health impacts of the project. SANL-8

The EIR identifies PM 10 exposures as *not significant* (Table 4.2-29). The cut-off for significance for annual PM 10 is 20 micrograms per meter cubed ($\mu g/m^3$). But, emissions from the microturbines or from the flare would cause the localized thresholds from the SCAQMD lookup tables to be exceeded for the PM10 and PM2.5 emissions even after the mitigation for the regional thresholds (EIR, 4.2-47). SANL-9

Lisa Santora MD, MPH lisasantora@hotmail.com

Mitigated Phase 2 Flaring and Phase 4 Microturbines are estimated at 20.14 and 20.44, respectively. This is significant because there is good evidence of the effects of short-term exposure to PM10 on respiratory health, but for mortality, and especially as a consequence of long-term exposure, PM2.5 is a stronger risk factor than the coarse part of PM10 (particles in the 2.5–10 µm range). All-cause daily mortality is estimated to increase by 0.2–0.6% per 10 µg/m3 of PM10. Long-term exposure to PM2.5 is associated with an increase in the long-term risk of cardiopulmonary mortality by 6–13% per 10 µg/m3 of PM2.5. SANL-9 continued

Current State of Health in Hermosa Beach

The EIR does not clearly present a picture of the current state of health and the burden of disease in Hermosa Beach. Furthermore, it does not clearly or adequately describe the current levels of air pollution and its impact on the health and well-being of Hermosa Beach residents, especially our vulnerable populations.

SANL-10

- Asthma Hospitalization Rate for Children < 18 Years = 10.7 per 10,000 children
- Heart disease and Cancer were the top two leading causes of death in SPA 8, accounting for 51.9 percent of all deaths; followed by stroke (5.9%) and chronic respiratory disease (5.7%)
- Hermosa Beach has two vulnerable populations that can be significantly impacted by air pollution: children (15.9% of total population) and older adults (9%)

Sources:

Los Angeles County Health Survey (LACHS)

Community Health Needs Assessments (CHNA) – Torrance Memorial Medical Center (TMMC), Providence Little Company of Mary (PLCM), and Kaiser – Harbor City (KP)

Frailty, Susceptibility and/or Vulnerability

Despite the lowest levels of economic hardship in Los Angeles County(1 out of 201), the life expectancy in Hermosa Beach falls in the 3rd quartile (61 out of 101) [80.4 years vs. 80.3 years, LAC]. Study reports strong evidence in association between reductions in fine particulate air pollution and improvement in life expectancy.

Current research demonstrates a significant relationship between particulate matter and cardiovascular Disease. As stated above, cardiovascular disease is the leading cause of premature death in Los Angeles County. A 14-day lagged cumulative moving average of 10 microg/m(3) PM(2.5) was associated with a 13.1% increase in Heart Failure admissions (2008). PM(2.5) elevated by 10 microg/m3 was associated with increased risk of acute ischemic coronary events (unstable angina and myocardial infarction) equal to 4.5% (2006) SANL-11

"Epidemiological studies have demonstrated a consistent increased risk for cardiovascular events in relation to both short- and long-term exposure to ***present-day concentrations of ambient particulate matter***." – American Heart Association (2004)

Lisa Santora MD, MPH lisasantora@hotmail.com

Childhood exposure to indoor air pollution, much of which penetrated readily from outdoor sources, may contribute to the development of wheeze symptoms among children ages 5 to 7 years. Positive associations between Asthma Control Questionnaire (ACQ) scores and respirable particulate matter (PM10), coarse particulate matter (PM10-2.5), fine particulate matter (PM2.5), nitrogen dioxide (NO2), and ozone (O3). In multivariate regression analysis of risk factors, residence in the west Buffalo neighborhood was an independent risk factor for asthma diagnosis (Lwebuga-Mukasa et al. 2004). Furthermore, this area was shown to be downwind of putative sources of traffic-related pollution emanating from truck traffic (Lwebuga-Mukasa et al. 2005). SANL-12

In most cases, the probability of disease or death is influenced not by one single factor, e.g., air pollution, but rather by a function of a whole set of underlying conditions or risk factors. For example, preexisting diseases, genetic factors, age, socioeconomic status, nutrition, and other environmental stressors may contribute to a person's frailty level (susceptibility or vulnerability).

Exposure leading to disease or death

1. A single exposure occurring once in the past over a short period of time (e.g., an accidental spill);
2. Repeated exposures of short duration (e.g., daily exposure to diesel emissions during construction);
3. Continuous exposure over a longer period of time;
4. A pattern of short term exposure just before disease-onset or death; or,
5. A combination of all of the above.

Categories of disease and death

1. Air pollution increases both the risk of underlying diseases leading to frailty/susceptibility and the short term risk of disease and/or death among the frail;
2. Air pollution increases the risk of chronic diseases leading to frailty/susceptibility but is unrelated to timing of death;
3. Air pollution is unrelated to risk of chronic diseases but short term exposure increases mortality among persons who are frail;
4. Neither underlying chronic disease nor the event of death is related to air pollution exposure.

SANL-13

<u>MATES III – EIR Tool for Public Health Risk Assessment</u>

MATES III provides a regional model for estimating risks – cancer and non-cancer. It uses established doses at or below which adverse health effects are not likely to occur. Its Central assumption is that a population threshold exists below which adverse effects will not occur in a population; however, such a SANL-14

threshold is ***not observable and can only be estimated. Furthermore, protection against carcinogenicity and against adverse health effects of short-term exposures are not considered***

EIR Findings

Hermosa Beach is in a region with an estimated 1200 excess cancer deaths per 1 million persons ***per lifetime*.** There are already 24 excess cancer deaths in HB (population 19,506), 94% due to mobile source emissions. This is significant since the Construction Phase of Proposed Project is estimated at 5-years. Traffic from construction and operations marginal when compared to total mobile source emissions in Hermosa Beach. But, increases in pollutant levels could have a significant local impact. However, MATES III only considers the regional significance. SCAQMD threshold for regional significance is 10 additional cancer deaths – or 0.2 HB resident who will die from cancer attributable to toxic air contaminants

SANL-14 continued

Unmitigated Risk

Sources that would make the **greatest contribution to the increased health risk levels were emissions from the diesel equipment used throughout the life of the Project**, including the diesel forklift during drilling and redrilling and the diesel equipment used for workovers, as well as emissions from the crude oil tanks. Due to the close proximity of the facility boundary to industrial receptors/workers and residences, **risks would be above the thresholds for the unmitigated scenario (EIR, 4.2-60).**

SANL-15

REFERENCES AVAILABLE UPON REQUEST

Lisa Santora MD, MPH lisasantora@hotmail.com

Terri Dinubilo

From: Nick Scandura <nscandura15@gmail.com>
Sent: Monday, March 17, 2014 10:27 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

829 17th Street
Hermosa Beach, CA 90254
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Nick Scandura, and I am a student of Mira Costa High School. Although I write you this letter as a student, my intentions are that of a concerned citizen of Hermosa Beach. I have done a fair amount of research on the subject matter, and I believe that drilling for oil in Hermosa Beach would be a tremendous injustice to the community. Allowing oil drilling is bringing down a plague of health hazards down on our 1.427 square mile community, as well as clogging it up with construction and essentially begging for an earthquake. SCAN-1

See comments below

One obvious and immediate cause of allowing drilling would be a much higher rate of pollution. Producing oil has a very high rate of pollutant production, and the oil company doesn't care. Many big oil companies have been exempt from large portions of the Safe Drinking Water Act, the Clean Water Act, and the Clean Air Act. That's not even all the laws they get to ignore. Bringing drilling to Hermosa is bringing filth and smog. SCAN-2

A heavily overlooked part of the oil drilling is all the construction that it will require. We can probably expect at least a year of basic construction, which will create a lot of noise pollution. We can also assume that, since they need materials for the construction, there will be lots of trucks going in and out of Hermosa. All these trucks will not only cause much more traffic, but will also cause a danger to small children who might wander off into the street. That's just during construction, before the drilling even starts. SCAN-3

Oil drilling will also heavily mess with the ground beneath our feet. Undermining our city and removing enough fluids from underground could very possibly cause a fault to slip. Studies have shown that oil drilling is linked to seismic events, and doing so could easily bring an earthquake upon us. The drilling will be right beneath our neighborhoods, so we would be at the heart of the earthquake. Drilling would bring a risk to the safety of all of us. SCAN-4

Some might argue that bringing the oil companies to Hermosa would also bring lots of money, but is it worth it? Would we really sacrifice the quality and integrity of our community for a little extra cash? Doing so would also be very selfish, as we will get the money, but the future generations will inherit our town in worse quality. The cash they give us won't really make a significant difference for most, but Hermosa will be permanently altered. SCAN-5

All in all, allowing drilling in Hermosa is a poor decision. It's true that we'll have a little extra cash in our pockets, but it's not worth the pollution, traffic, and dangers that come along with it. We would be

risking massive earthquakes and oil spills. All of these causes would slowly make Hermosa less hermosa, and that's not what we want.

Addendum to SCAN-1

Yours sincerely,

Nick Scandura

Terri Dinubilo

From: Jason Schwartz <schwartz.schwizzle@gmail.com>
Sent: Monday, March 17, 2014 9:12 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on drilling in Hermosa

1616 Gates Avenue

Manhattan Beach, CA 90266

March 17, 2014

Mayor Michael DiVirgilio

Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,

City Manager Tim Bakaly

City of Hermosa Beach

1315 Valley Drive

Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I am a sophomore at Mira Costa High School. I reside in Manhattan Beach and I have grown a great love for the beach and surrounding communities. I am writing you to show you my opposition to the oil drilling off of the coast of Hermosa Beach. There could be many issues that come along with the oil drilling such as environmental hazards, degradation of the beauty of Hermosa Beach, and a decrease in property values. SCHJ-1

There are many environmental issues that come with any type of fracking. There is always a possibility of an oil spill, air pollution, and carcinogen contamination by emissions from venting, and pipeline leaks. The oil spills can damage an already fragile ocean ecosystem and cause extreme problems with beach-goers. SCHJ-2 Air pollution, which is already an enormous factor in LA and the surrounding areas, will be increased throughout the entire process of drilling. The project also gives possibility to many carcinogens being released throughout our environment. SCHJ-3

The beach in Hermosa is a beautiful place and the drilling there can diminish its beauty quickly and easily. The oilrigs will be visible from shore, which is undesirable by many. The oil spills can cause oil buildup on the beach and cause many dead animals to wash ashore. Hermosa Beach, which is a desirable surf spot, could make surfing obsolete for a period of time. SCHJ-4

With the oilrigs being visible from the beach and beachfront properties, this will have a significant impact on the housing market and city revenue. The eyesores and environmental challenges will cause a lowering the home prices that many people have spent lifetime savings to invest in. The drop in housing prices can cause many to go into debt. With the lack of beauty, many tourists may cease to visit Hermosa Beach causing a loss in city revenue. SCHJ-5

With the approval of the drilling there will be a great income of money to the city of Hermosa. Many may argue that this money is a necessity, and can solve many problems. The money could help go support local schools, such as Mira Costa or the elementary and middle schools in the Hermosa area. It can also be used to help renovate and keep up the outstanding town of Hermosa. SCHJ-6

After researching this option of drilling for oil in Hermosa Beach, I feel it is in the best interest of the people of the community that the idea is vetoed. The pollution, environmental difficulties, and loss of natural beauty, outweighs the income money. I know the decision is an incredibly difficult one to make but after viewing the pros and cons I feel the decision is made a lot easier. SCHJ-7

Yours sincerely,

Jason Schwartz

"Health Hazards." *Stop Hermosa Beach Oil*. Stop Hermosa Beach Oil, 2013. Web. 17 Mar. 2014.

"Catskill Mountainkeeper." *Catskill Mountainkeeper*. N.p., n.d. Web. 17 Mar. 2014.

Terri Dinubilo

From: Quin Severo <quinrs24@gmail.com>
Sent: Monday, March 17, 2014 9:10 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Hermosa Beach Oil Drilling

750 26th Street
Manhattan Beach, CA 90266
March 14, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

I am Quin Severo, a local resident of the South Bay and sophomore at Mira Costa High School. I was born and raised in Manhattan Beach, and have grown up spending time at the beach and enjoying the beauty Southern California has to offer.

If Hermosa goes through with the drilling, then there will be many health hazards that citizens of Hermosa Beach and neighboring communities will have to face. According to, Stop Hermosa Beach Oil, almost half of Hermosa residents live less than half a mile from the proposed drilling site. The dangerous pollutants released from the plant propose health risks such as asthma, bronchitis, heart attacks, heart failure, and headaches. SEVQ-1

There will be many changes to the city of Hermosa if they are to chose to go through with the Drilling Agreement. To name a few, thirty oil rigs, storage tanks, and waste treatment facilities, will be installed over a process of several years. SEVQ-2 There will be light, noise, and odor constantly emitted from the plant. SEVQ-3 Also, there will be increased traffic because of the construction and day-to-day activities of the plant. SEVQ-4

Oil drilling has been directly linked to many dangerous occurrences, such as earthquakes and oil spills. By giving the oil company the power to drill under any part of Hermosa Beach, they could seriously affect the ebb and flow of everyday life in the small beach community. SEVQ-5

The main plus side of the drilling deal is the cost benefit, but I along with most people feel that the cost benefit will never outway the more serious and numerous negative impacts that the drilling could potentially have. In the end, citizens must ask themselves; Is a cost benefit worth health risks and changing the Hermosa Beach they know and love forever? SEVQ-6

It is not right to put money before peoples' lives, health, comfort, and happiness. Thank you for taking the time to read my letter and consider my opinion. SEVQ-7

Best regards,

Quin Severo

From: Howard [mailto:howard17@mindspring.com]
Sent: Wednesday, March 05, 2014 4:35 PM
To: Oil Project
Subject: written comments on draft EIR, HIA and CBA

March 5, 2014, VIA E-MAIL

Ken Robertson,

Director, Community Development Department, City of Hermosa Beach

RE: Draft Environmental Impact Report, HIA and CBA - E & B Oil Drilling, Pipeline, and Production Project

Dear Ken,

The following is my input for oil drilling public written comments to be considered for inclusion in final reports by the consultants and any further presentation material provided to voters. I am a long-term homeowner living in North HB.

After seeing the "2 – Direct City Costs (If Measure Approved)" slide from the Monday February 24 presentation, it seems that significant costs are omitted. SIMH-1

I haven't finished reading the 3 reports, but I wonder if the streets will upgrade and repair themselves for commercial truck use; the heavy industrial fire department will be strictly volunteer and firefighters will find free oil well firefighting and containment equipment and a place to store and train with it, or the city will have to condemn and purchase adjacent property as a buffer zone due to future safety regulations or for emergency access. Has someone guaranteed that no one will sue the city? We see that there is a projected average additional 0-1.6 deaths per year, up to 6 additional childhood asthma cases per year, anticipated property value reduction due to proximity and in case of a catastrophe, and lots more identified potential liabilities.

I think one additional 8-hour shift in the fire department is wholly inadequate to protect the city from oil drilling and pipeline caused catastrophe. However, one shift plus training was estimated to cost $250,000 per year or $16.5 million over 35 years. This minimal staffing cost is far greater than most of the items included in the Direct City Costs summary and should be included in that summary.

When the city's HIA projection is that up to 56 people will die (up to 1.6/year x 35 years) and up to 180 children (up to 6/year x 30 years during phase 4) will suffer asthma as a direct result of oil drilling activities, shouldn't the potential liability be quantified and either the city purchase insurance or allocate money for a new defense and settlement fund? This could mean up to 56 wrongful death lawsuits against the city and up to 180 lawsuits for children's lifetime health damages, assuming only valid claims are filed. And that is without any catastrophic incidents over the next 35 years. Without major insurance coverage, will HB be the biggest, brokest lawsuit target around, likely depressing property values for all HB home and business owners?

The HIA reminds me of the Ford Pinto debacle. Ford identified the dangers of exploding gas tanks, then performed a financial analysis and chose to sell the car in spite of the projected deaths and injuries. The largest individual award was $126 million by a California jury 36 years ago in 1978, later reduced on appeal to $3.5 million. One lesson from Ford is when the city plans on people being injured and dying from profit motivated activities, we should not underestimate the fury of California juries and the size of damage awards. This is not the same as a single oil company suing for their illusive lost profits, but possibly hundreds of families suing for loss of their mothers, fathers, grandparents and children, or their health, so the city can have some extra money.

While we can argue all day what a wrongful death lawsuit or a child's asthma is worth, doesn't the spirit or obligation of full disclosure suggest that significant projected damages and liabilities be included in the financial analysis? I would guess that the whole oil drilling fiasco will have direct costs which exceed what the city and schools will receive in oil revenues. I haven't seen a discussion of this issue, but we need to ascertain if the city can charge these defense liabilities against all the restricted oil revenues? And that assumes that they are not already committed or spent by the time lawsuits are filed.

While insurance does not reduce the projected costs of death and damages, it limits the unplanned costs so long as the coverage is large enough. So if it is reasonable to estimate the settlement cost of a wrongful death at $2 million and defense costs of $500K, then up to $140 million should be planned based on the HIA estimate of up to 56 of these cases. I'm sure there are factors to use to plan for defense and settlement for actual and punitive damages for intentionally causing children's asthma. If that totals $1 million per case, then there should be provisions in the budget for another $180 million for these damages, and possibly a contingency if the planning estimates turn out to be low or an incident occurs.

The EIR identifies lots of unmitigated risks that need to be included in the financial projections. Some of these risks only insurance can protect against, such as lawsuits resulting from increased risk of earthquake damage, catastrophic explosions, leaks, fires, discharges, toxic clouds, and more. Any earthquake in the next 35 years will likely raise the question of contributory effects of oil drilling and waste water discharge.

Under the auspices of risk assessment, mitigation of financial concerns, and full disclosure, how about if the city or a private group submit the EIR and other analysis to an insurance company for a quote? An

insurance quote would provide an independent assessment of the costs of the risks and exposures of the oil drilling project from someone (the insurance company) who actually has skin in the game – i.e.: they are at risk for payout of claims against all the risks.

The city could look for a full value policy, like insurance companies suggest for homeowners insurance – 6,000 residences (4,000 owner occupied and maybe 2,000 rental buildings) at $1 million each totals $6 billion, plus personal injury, liability, city lawsuit defense, and other disaster coverage for 35 years or the life of the oil well and pipeline project. The policy could cover reduction in property values in case of an incident. But what if damages occurred to the Santa Monica bay or property outside HB as a result of the drilling and transportation of oil and gas?

We could even ensure against a dry well, so the city is not out big $ for moving the maintenance yard, creating an industrial strength fire department, strengthening roads if the pipeline isn't completed, etc. It is also important to establish the future cost of anything buried in the contracts that the city may be indemnifying the oil, pipeline company, or neighboring cities for or for which there is no responsible party other than the city with sufficient resources to pay for the damages. As established above, the property owners in HB own real estate assets valued at $6 billion or so, at least before a catastrophe.

I can't guess what the insurance cost would be, but I doubt it would be trivial for 35+ years and lots of identified risks. I think the HIA was weak or remiss in exploring and identifying or ruling out the risk of cancer clusters surrounding oil and gas production facilities. Of course, insurance can't keep people from dying or being hospitalized or diagnosed with cancer, but they can assign values and risks to these potential outcomes. Then the insurance cost can be held up as a real cost to compare against profit projections. If we were surprised and the insurance cost is actually trivial, then I'd say buy it!

Thank you for your consideration. Please confirm receipt of this email.

Sincerely,

Howard Simon

611 23rd St.
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

As a born and raised "HB loc" and resident of the area a few streets away from where the base of the drilling would be, I Katie Smythe am against the offshore drilling. Having studied Chemistry for the past school year I have acquired a sense of how detrimental certain pollutants can be to our environment and our health. With this drilling comes multiple harmful effects- toxic chemicals released during operation, risk of explosion and a disruption of peace. SMYK-1

In 1981, U.S. Congress passed a moratorium on any oil drilling on the Outer Continental Shelf; this was because of one serious reason. 12 years previous, in Santa Barbara an oil-drilling platform six miles off the coast blew up after a failed attempt to replace a drill bit. Natural oils and gases spread for miles across the Pacific Ocean killing millions of animals and spreading to our lovely beaches. Local fishing and tourism reached its low point and the cleanup began. Millions of dollars and an immense amount of time went into the efforts to fix this. People everywhere began to realize the effects on such things on their environment. Anger and frustration spurred many to form environmental groups to protect their communities and fight to protect the environment. It's a known fact that more than ten harmful pollutants are released in the time that the oil is being drilled. For example Arsenic is a known carcinogen that can cause cancer of the skin, lung, liver and kidney. Another toxin given off in this process is benzene; known to be a main cause of leukemia. The slight chance of any of these toxins being released in our atmosphere is an obvious reason to give this operation a major second thought. SMYK-2

A recent rupture of a gas line in Fremont proved that oil drilling truly is prone to be faulty. We commonly hear of small pipeline explosions with everyday things such as sewage pipes and even our sinks at home. Yes, these do cause some annoying problems but not like the explosion of one of these pipelines. The adverse effects of explosions of gas lines far surpass the benefits of extra income.

Hermosa Beach has always been known to the public as a small, quaint, laid-back beach town jam-packed with beach lovers of every age. Not only would the people of this town be negatively affected, but so would the town's whole vibe as well. Because the location of the main facility is right on the busy cross street of Sixth Street and Valley Drive, our small town would become even more crowded than before. Just next-door in Redondo Beach is the giant power plant. Bringing in another gigantic and unappealing piece of metal would take an even bigger chunk out of the beachy feel of this small town. SMYK-3

With gas prices rising quickly and drastically, the idea of offshore drilling seems ideal to many which is understandable in certain aspects. The number one reason most people are for the drilling in Hermosa is because they believe their economic benefit. Money made from the drilling could go towards bettering the school district, roads, and local businesses. There is also a belief that this way of oil drilling is less invasive and sound proof compared to the usual fracking methods. SMYK-4

In conclusion, no matter how great the economic outcome may seem- the adverse health and environmental long-term effects far outweigh them. Toxic chemicals are released during operation; there is a large risk of explosion and a complete disruption of peace. As you can see, the pro's and con's of each are not the same. It would be a sad day to hear that the plan to drill went through. Thank you for your time. SMYK-5

Yours sincerely,

Katie Smythe

1401 Artesia Blvd,
Manhattan Beach, CA 90266
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

As a sophomore at Mira Costa High School, I am writing this letter to voice my concerns regarding the pending Hermosa Beach oil drill project. My concerns in part are the cognizance of the sea animals health, human health, and the effects of landscaping it will have on Hermosa Beach.

Oil drilling will harm the normal life of a sea animal. By law in California drilling has to be 300 to 350 feet away from residents. However, Hermosa Beach drilling would be less than 100 feet from homes. Even though it will be underground it will affect the food supply of many animals who come and feed on sea life at the bottom of the ocean floor which will be pierced if drilling permitted. Needless to say, once a hole is made it creates a greater opportunity for other sea life to be contaminated. Furthermore, an oil spill is not excluded just because it is under ground. The oil in the hole can bubble up into the water and on the sand. SONK-1

Another major concern is the air quality that will affect humans health that Hermosa Beach residents will be forced to breathe. The odor emitted from raw oil can be toxic and cause nausea despite the greatest efforts of containment. In my chemistry class we have learned that the emission of CO2 and NO2 into the ozone layer will increase the temperature greatly. These oil emissions will further erode the ozone layer. It is a known fact that these odors can be detected from over a mile away from its source. SONK-2

Last but not least, the effect on the picturist landscape. Hermosa beach is known for its beautiful skyline. The law of gravity states: everything that goes up must come down. The emissions mixed with the standard toxins in the air will rain pollutants that will disease the flower and plant life. SONK-3

Despite the unfortunate outcomes of the Hermosa Beach drilling project many persons are willing to pardon the many negative effects of the project if it means more revenue to the city. However, good health should outweigh the argument that this project could benefit everyone. SONK-4

Yours sincerely,

Kamilah Sonko

From: Brad Sorensen [mailto:sorensen.design@verizon.net]
Sent: Friday, April 04, 2014 8:32 PM
To: Oil Project
Cc: Brad Sorensen
Subject: To Ken Robertson for public comment on the oil project

To: Ken Robertson

4 April 2014

SORB-1

I believe that images speak louder than words.

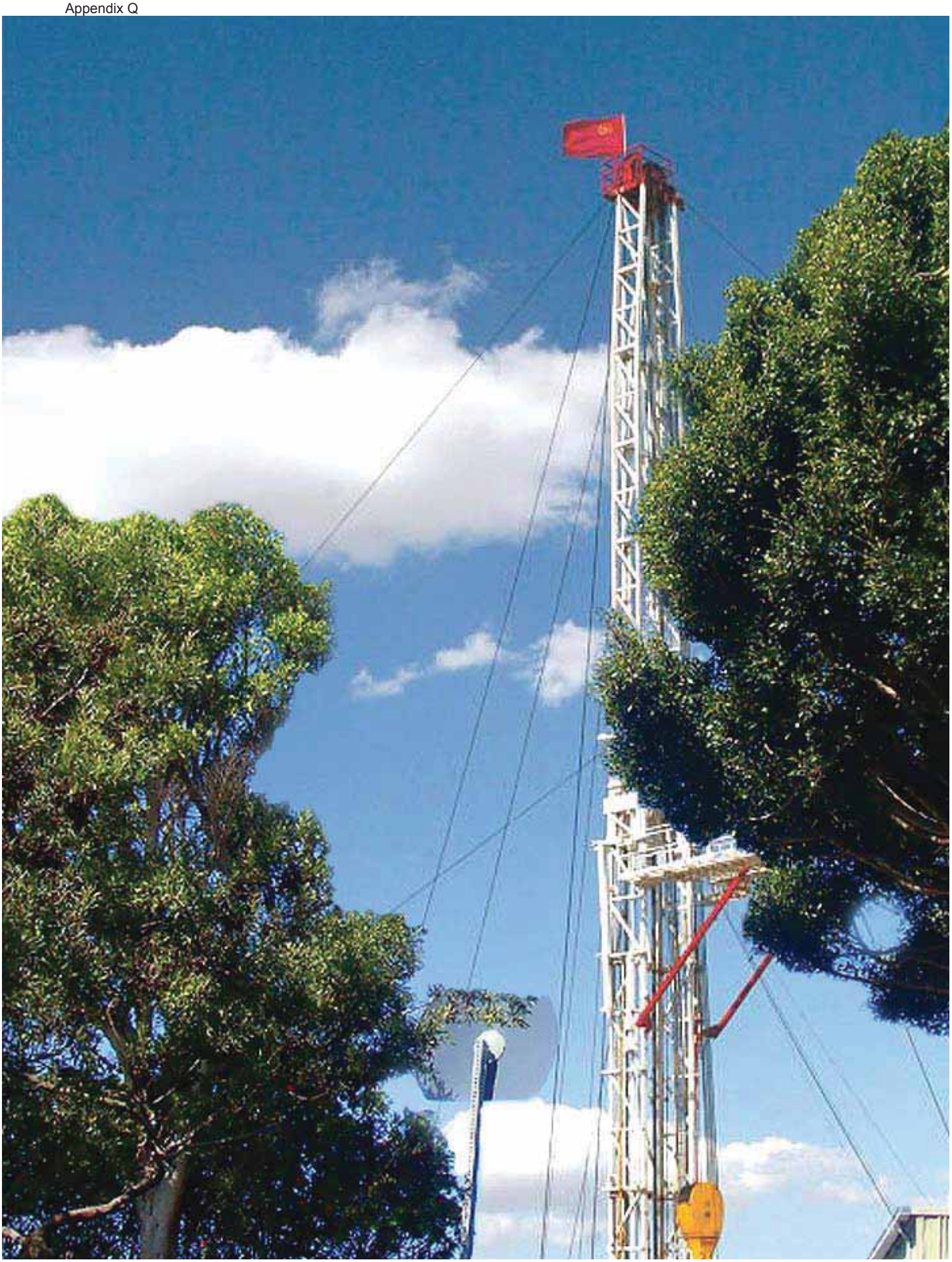
I wish to submit this collection of images of my opinions on the oil project in Hermosa Beach.

Since the oil company refused to do a simulation of the impact of this project on the community of Hermosa Beach, I have created a simulation by illustrating my opinion under the protection of freedom of speech and freedom of the press.

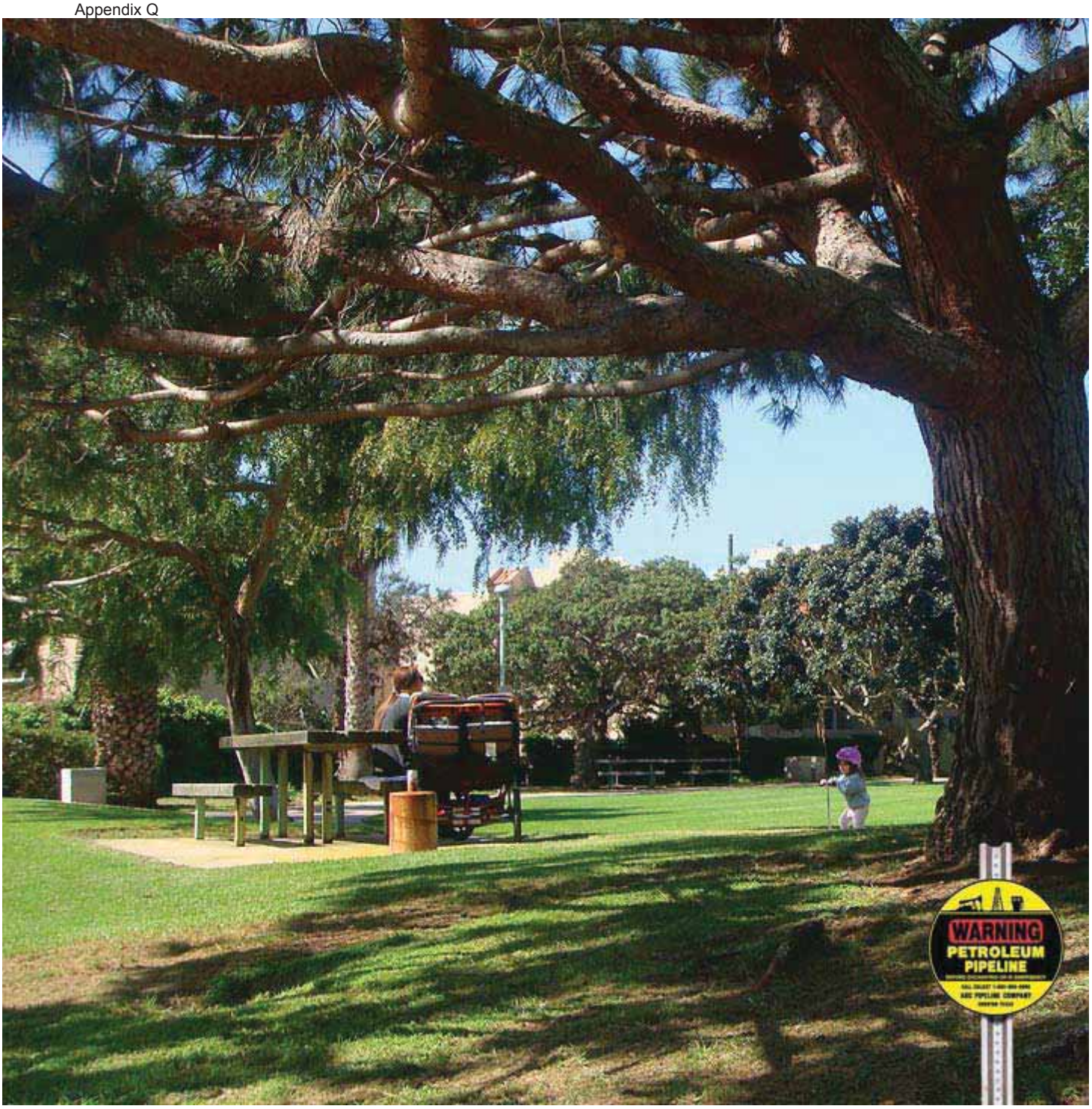
Please add these images to the collection of public comment on the Draft Environmental Impact Report.

Thank you,

Brad Sorensen
803 Bard Street
Hermosa Beach, CA 90254
310-802-8082
BradSorensen.com
sorensen.design@gte.net



WARNING
GAS
PIPELINE
BEFORE DIGGING
CALL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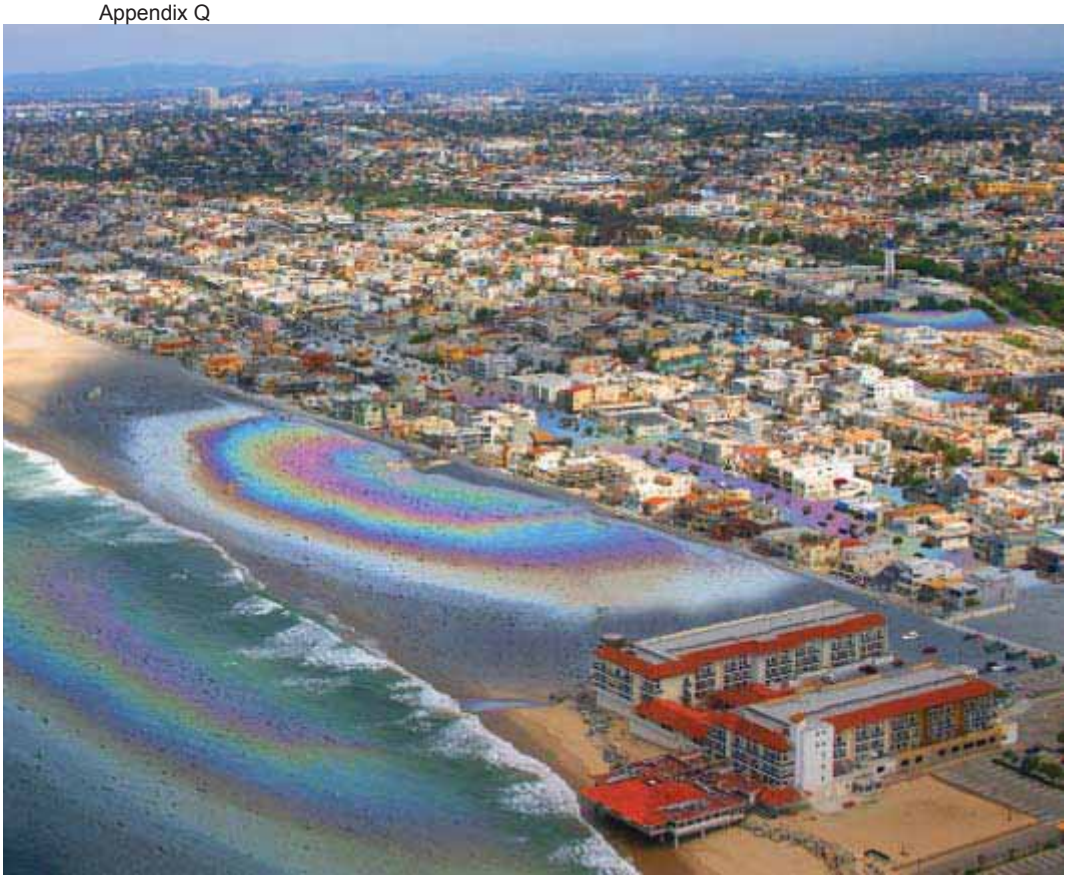

People live within 60 yards of the oil drilling site.
People work within 35 yards of the oil drilling site in these buil
7th St
People work within 1 yard of the oil drilling site in these
People work within 1 to 3 yards of the oil drilling site in these buildings.
Cypress Ave
People work within 50 yards of the oil drilling site in these buildings.
DRILL RIG
People walk within 3 yards of the oil drilling si
© 2013 Google
Imagery Date: 4/16/2013
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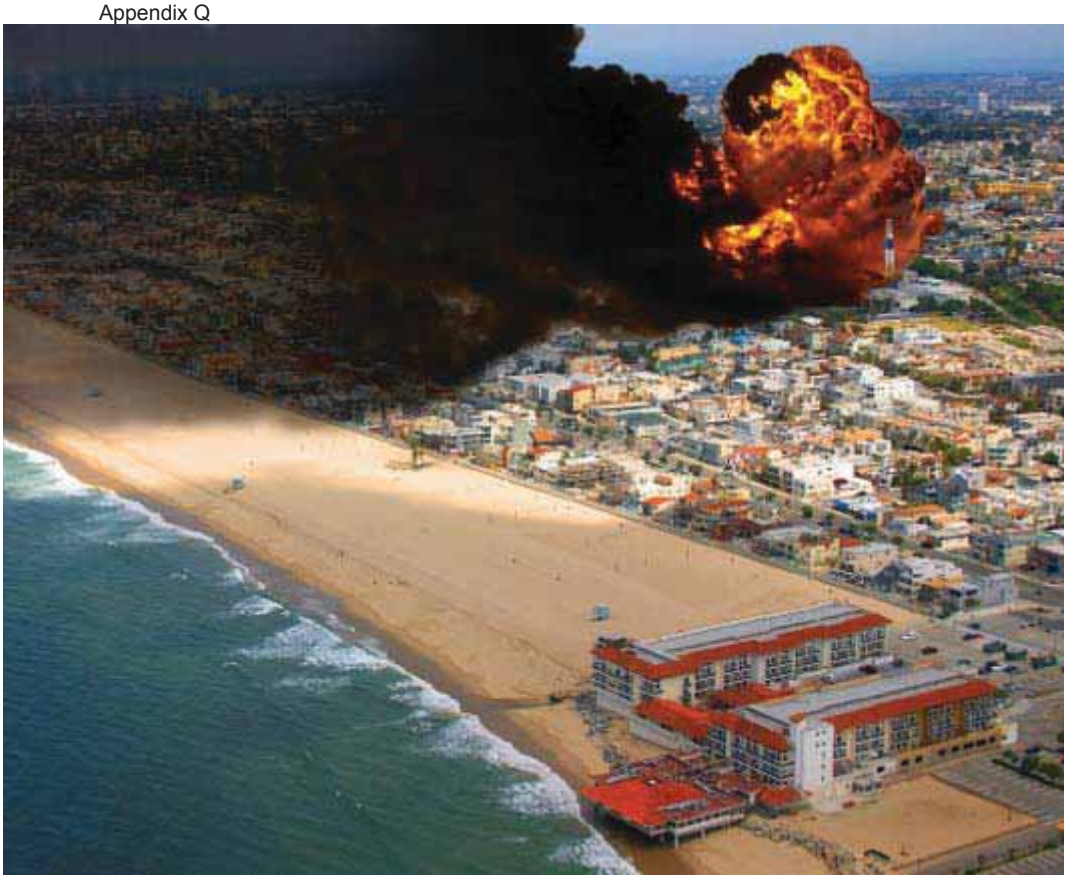
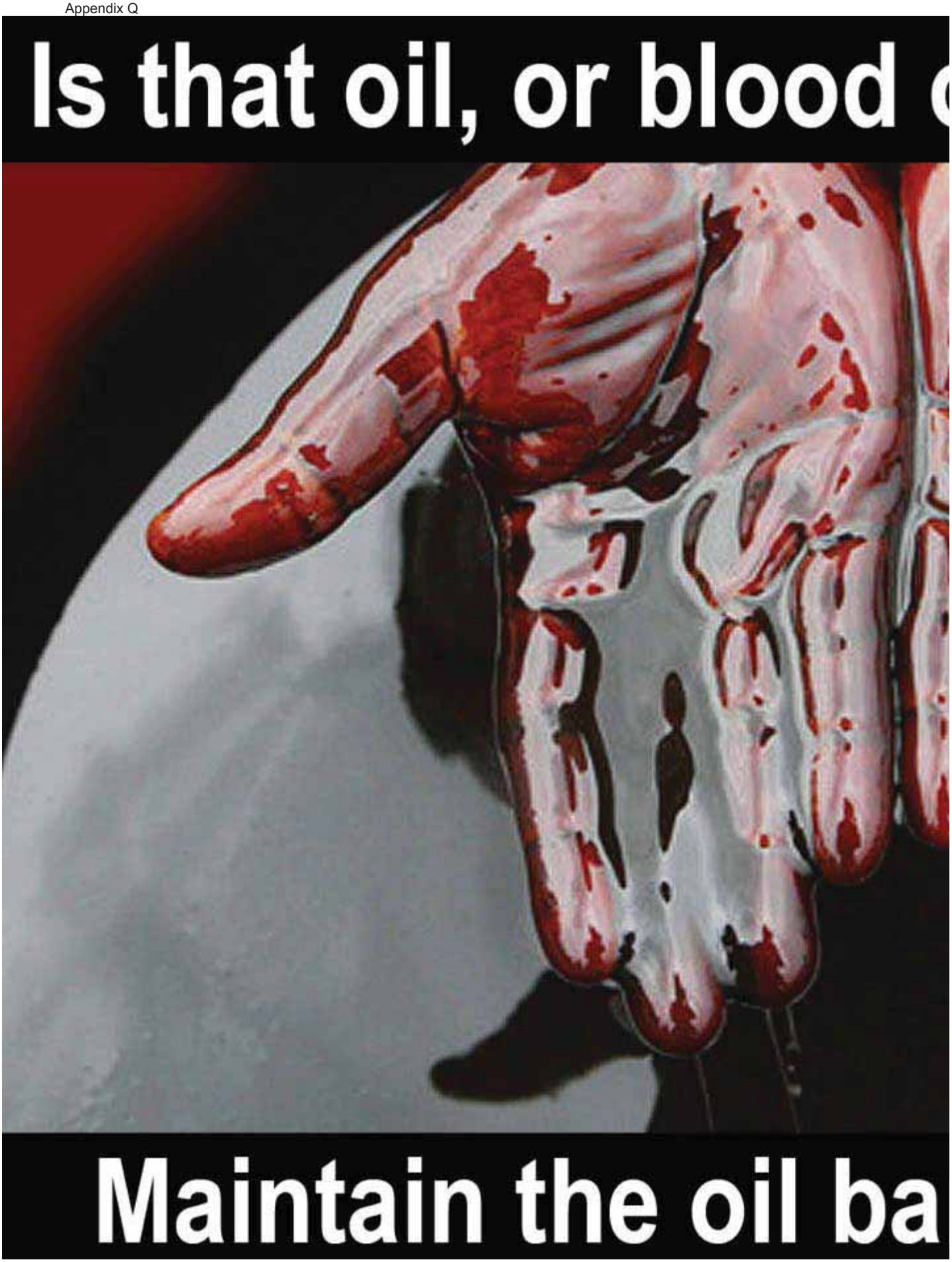
6TH ST
VALLEJ
© 2013 Google
© 2013 Google



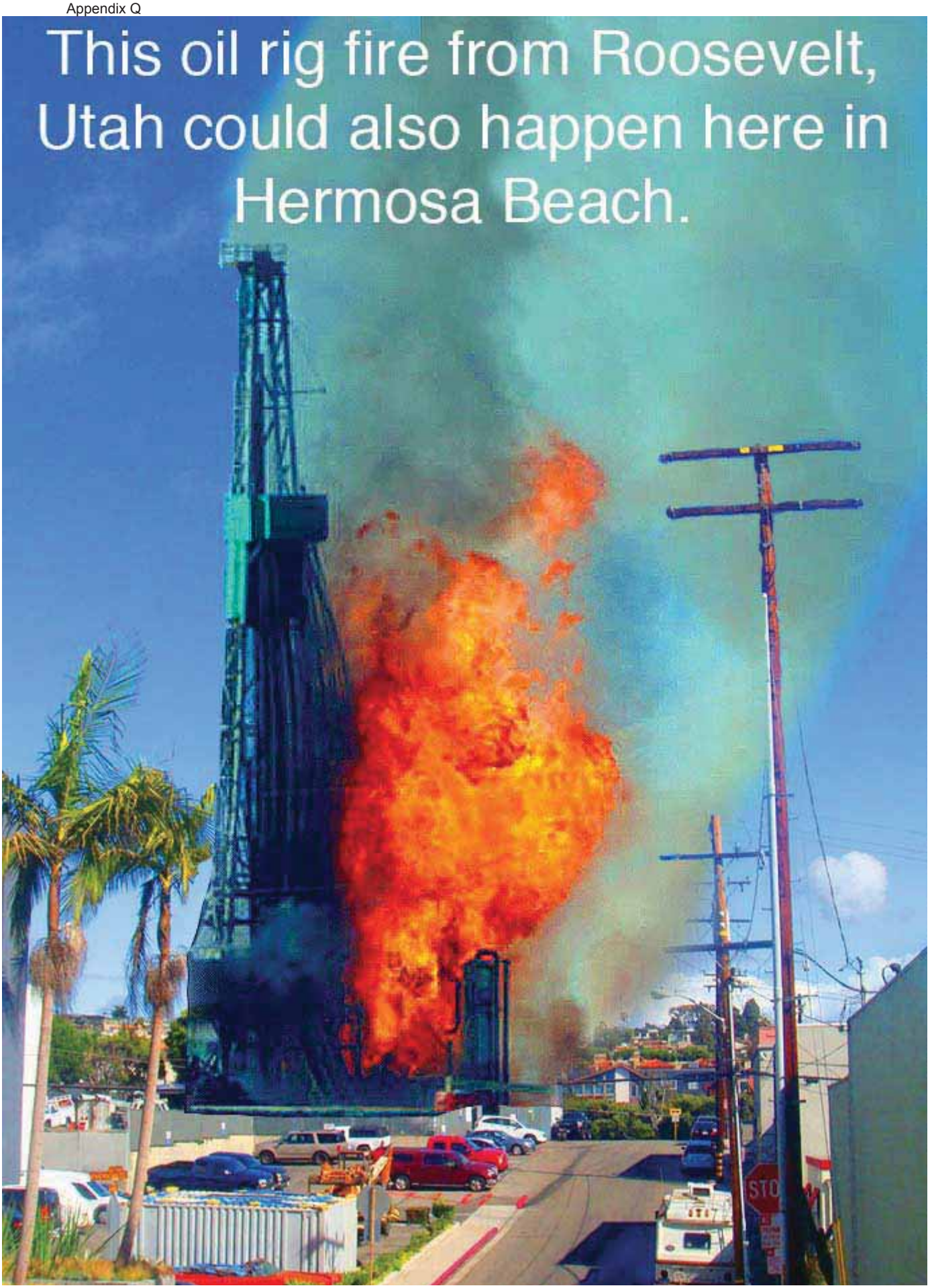
BENZENE
CANCER HAZARD
FLAMMABLE - NO SMOKING
AUTHORIZED PERSONNEL ONLY
RESPIRATOR REQUIRED
DANGER
TOLUENE
HIGHLY FLAMMABLE LIQUID
AND VAPOR!
PANE
MOKING
FLAMES

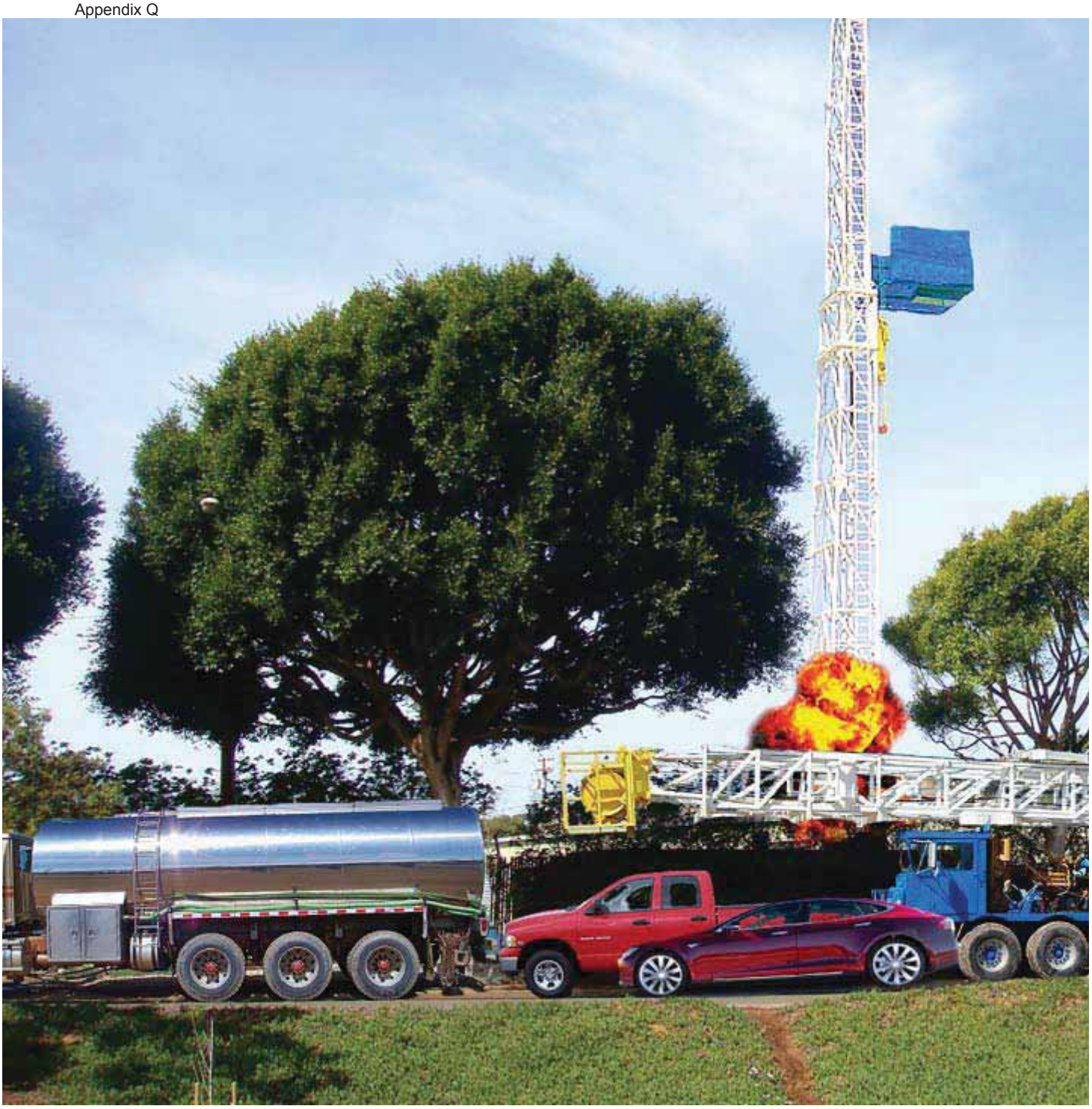
$2,500,000

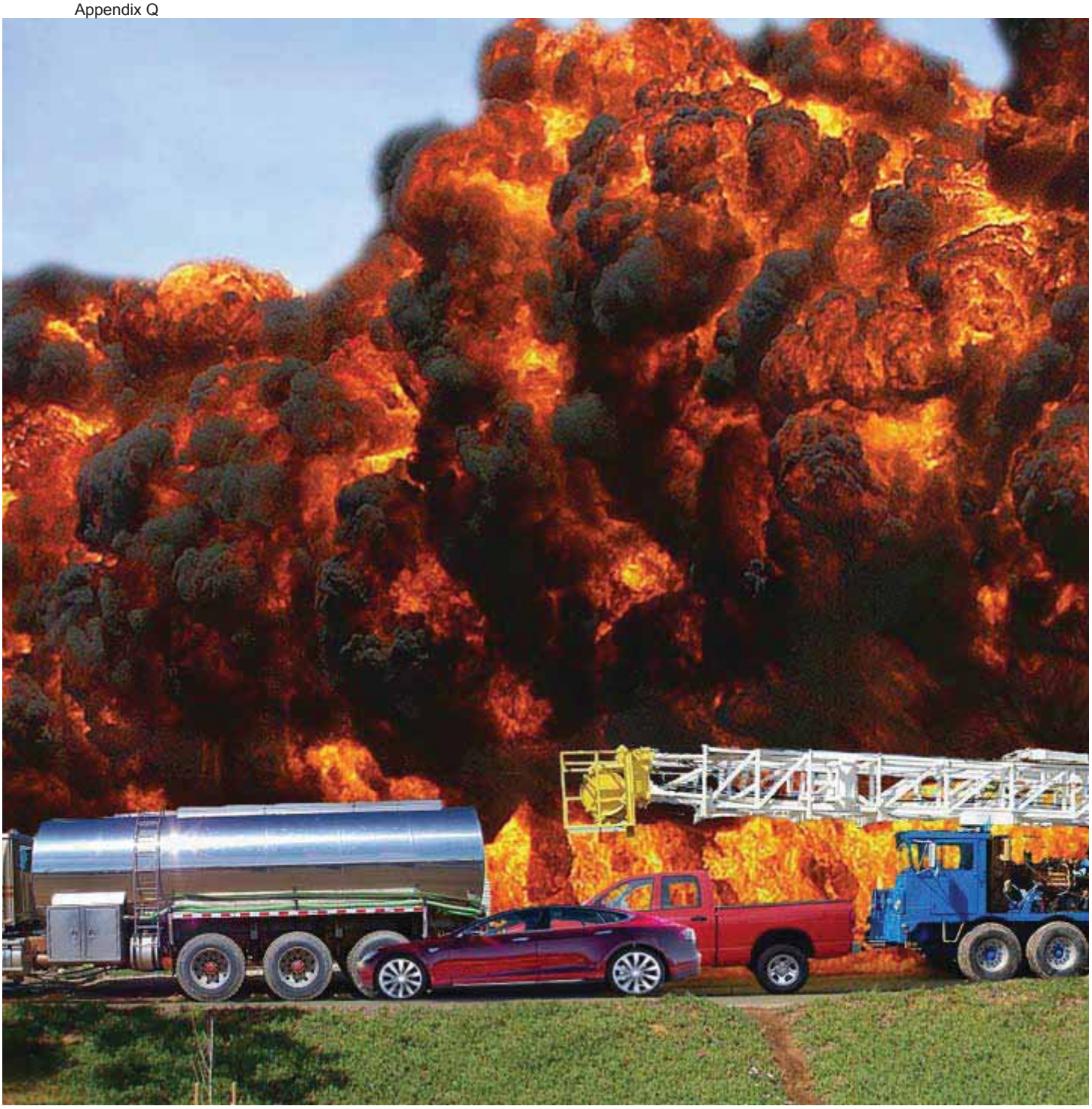
$500


Is that oil, or blood
Maintain the oil ba

CITY HALL
OF HERMOSA BEACH
1315 VALLEY DRIVE
CRUDE OIL


This oil rig fire from Roosevelt, Utah could also happen here in Hermosa Beach.





End of SORB-1

Brittney

From: Greg Chittick [greg.chittick@mrsenv.com]
Sent: Tuesday, April 08, 2014 9:52 AM
To: Brittney Stephens
Subject: FW: To Ken Robertson for public comment on the oil project
Attachments: Pros and Cons extended list More.tiff; ATT00001.htm

Greg Chittick
Senior Engineer and Scientist
3140 Telegraph Rd Suite 2A
Ventura, CA 93105
805-289-3924
greg.chittick@mrsenv.com

From: Pamela Townsend [mailto:ptownsend@hermosabch.org]
Sent: Tuesday, April 08, 2014 9:44 AM
To: 'Edward Almanza (superpark@igc.org)'; Luis Perez; Greg Chittick
Subject: FW: To Ken Robertson for public comment on the oil project

Pamela Townsend, Senior Planner
City of Hermosa Beach
Community Development Department
1315 Valley Drive, Hermosa Beach, CA 90254
Phone: (310) 318-0242 Fax: (310) 937-6235
Email: ptownsend@hermosabch.org
Hours: Monday-Thursday, 7:00 a.m.–6:00 p.m.
Website: http://www.hermosabch.org
Municipal Code:http://www.hermosabch.org/departments/cityclerk/code/

From: Brad Sorensen [mailto:sorensen.design@verizon.net]
Sent: Friday, April 04, 2014 8:58 PM
To: Oil Project
Cc: Brad Sorensen
Subject: To Ken Robertson for public comment on the oil project

To: Ken Robertson

4 April 2014

Sometimes the number of words make the point I wish to communicate.

I wish to submit this image of my opinion on the oil project in Hermosa Beach.

I am illustrating my opinion under the protection of freedom of speech and freedom of the press.

Please add this image to the public comment on the Draft Environmental Impact Report.

Thank you,

Brad Sorensen
803 Bard Street
Hermosa Beach, CA 90254
310-802-8082
BradSorensen.com
sorensen.design@gte.net

Pros	Cons
Money for E&B	Loss of real estate value, cancer, vomiting, diarrhea, headache, dizziness, liver cirrhosis, coma, kidney failure, eye irritation, respiratory paralysis, confusion, staggering, dermatitis, neurotoxicity, convulsions, nausea, fatigue, drowsiness, hallucinations, neuropathy, asphyxiation, insomnia, irregular heartbeat, peripheral nerve damage, large amounts of volatile organic compounds mixing with the air, ground level flame combustor burning toxic chemicals like benzene, xylene, toluene, hydrogen sulfide, sulfur dioxide, carbon monoxide, carbon dioxide and nitrous oxide into the air, water pollution in rainwater run off to the ocean, exhaust from the diesel generator, exhaust from the diesel mud mixer, exhaust from the hydrogen sulfide separator, exhaust from the heated diethanolamine CO2 removal equipment, exhaust from the heated low temperature water separation equipment, exhaust from the two industrial size air compressors, exhaust from the microturbine, exhaust from the emergency generator, noise from the electric powered drilling rig, noise from the mud mixer, noise from the spinning rotary table, noise from the drawworks, noise from the drill pipe rack, noise from the monkeyboard, noise from the drill collar slips, noise from tripping drill pipes, noise from the drill pipe elevator, noise from the drill pipe tongs, noise from the electrical generator, noise from the microturbine, noise from the diesel generator, noise from two industrial size air compressors, noise from three industrial size gas compressors, noise from a produced water injetion pump, noise from a drilling mud pump, noise from a waste gas combustor, noise from an oil tanker truck loading operation, noise from workers having to yell over the sound of their loud equipment, light pollution, traffic congestion, Injection of brine into groundwater, 100 foot + workover tower in the center of a beautiful beach town, risk of blowout of hundreds of capped oil wells under the houses of Hermosa Beach by pressurization of underground formations with injected processed water, risk of crude oil radiation, risk of lowering the surface level of the city in an uneven manner causing structural damage, risk of pressurized mud blowout, risk of birth defects, risk of instant hydrogen sulfide gas death, risk of death by fire, risk of ocean pollution, risk of oil blowout, risk of subduction, risk of earthquakes, risk of tanker truck accidents, risk of oil and gas pipe ruptures and risk of death by explosion.

Brittney

From: Greg Chittick [greg.chittick@mrsenv.com]
Sent: Tuesday, April 08, 2014 9:53 AM
To: Brittney Stephens
Subject: FW: To Ken Robertson for public comment on the oil project

Greg Chittick
Senior Engineer and Scientist
3140 Telegraph Rd Suite 2A
Ventura, CA 93105
805-289-3924
greg.chittick@mrsenv.com

From: Pamela Townsend [mailto:ptownsend@hermosabch.org]
Sent: Tuesday, April 08, 2014 9:44 AM
To: 'Edward Almanza (superpark@igc.org)'; Luis Perez; Greg Chittick
Subject: FW: To Ken Robertson for public comment on the oil project

Pamela Townsend, Senior Planner
City of Hermosa Beach
Community Development Department
1315 Valley Drive, Hermosa Beach, CA 90254
Phone: (310) 318-0242 Fax: (310) 937-6235
Email: ptownsend@hermosabch.org
Hours: Monday-Thursday, 7:00 a.m.–6:00 p.m.
Website: http://www.hermosabch.org
Municipal Code:http://www.hermosabch.org/departments/cityclerk/code/

From: Brad Sorensen [mailto:sorensen.design@verizon.net]
Sent: Saturday, April 05, 2014 3:16 PM
To: Oil Project
Subject: To Ken Robertson for public comment on the oil project

To: Ken Robertson

5 April 2014

SORB-3

I believe that images speak louder than words.

I wish to submit this collection of images of my opinions on the oil project in Hermosa Beach.

Since the oil company refused to do a simulation of the impact of this project on the community of Hermosa Beach, I have created a simulation by illustrating my opinion under the protection of freedom of speech and freedom of the press.

Please add these images to the collection of public comment on the Draft Environmental Impact Report.

Thank you,

Brad Sorensen
803 Bard Street
Hermosa Beach, CA 90254
310-802-8082
BradSorensen.com
sorensen.design@gte.net

End of SORB-3

Brittney

From: Greg Chittick [greg.chittick@mrsenv.com]
Sent: Friday, April 11, 2014 6:44 PM
To: Brittney Stephens
Subject: FW: To Ken Robertson for public comment on the oil project

Greg Chittick
Senior Engineer and Scientist
3140 Telegraph Rd Suite 2A
Ventura, CA 93105
805-289-3924
greg.chittick@mrsenv.com

From: Pamela Townsend [mailto:ptownsend@hermosabch.org]
Sent: Friday, April 11, 2014 4:06 PM
To: Edward Almanza; Luis Perez; Greg Chittick
Subject: FW: To Ken Robertson for public comment on the oil project

Pamela Townsend
Senior Planner, Community Development Dept.
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, CA 90254
(310) 318-0242
Hours: Mon-Thu, 7:00 a.m. to 6:00 p.m.
www.hermosabch.org

From: Oil Project
Sent: Friday, April 11, 2014 4:04 PM
To: Pamela Townsend
Subject: FW: To Ken Robertson for public comment on the oil project

---

From: Brad Sorensen <sorensen.design@verizon.net>
Sent: Thursday, April 10, 2014 7:03:59 AM
To: Oil Project
Subject: To Ken Robertson for public comment on the oil project

To: Ken Robertson

5 April 2014

SORB-4

I wish to submit this image of the oil company's plan for the 30 oil and gas drilling wells and the 4 water injection wells overlaid on the Google Earth image of the City of Hermosa Beach.

In my opinion, it is very disturbing that no fire suppression system detailed in the oil company's plans. With the people of Hermosa Beach working, walking or living as close as 1 yard from the oil drilling site, a robust fire suppression system covering all 34 wells, all perimeter fences, the oil tanker loading docks, the gas compressors, the mud pumps, the the hydrogen sulfide separator, the heated diethanolamine CO2 removal equipment, the crude oil drain sumps, the crude oil storage tanks, the crude oil clarifier, the oil water separation area, the waste gas combustor and the oil drilling rigs themselves should be added with automatic activation devices in case all of the personnel on the site are killed or injured by the initial explosion and fire.

There are hundreds of documented fires, blowouts and explosions that we have collected because of the threat to the people of Hermosa Beach.

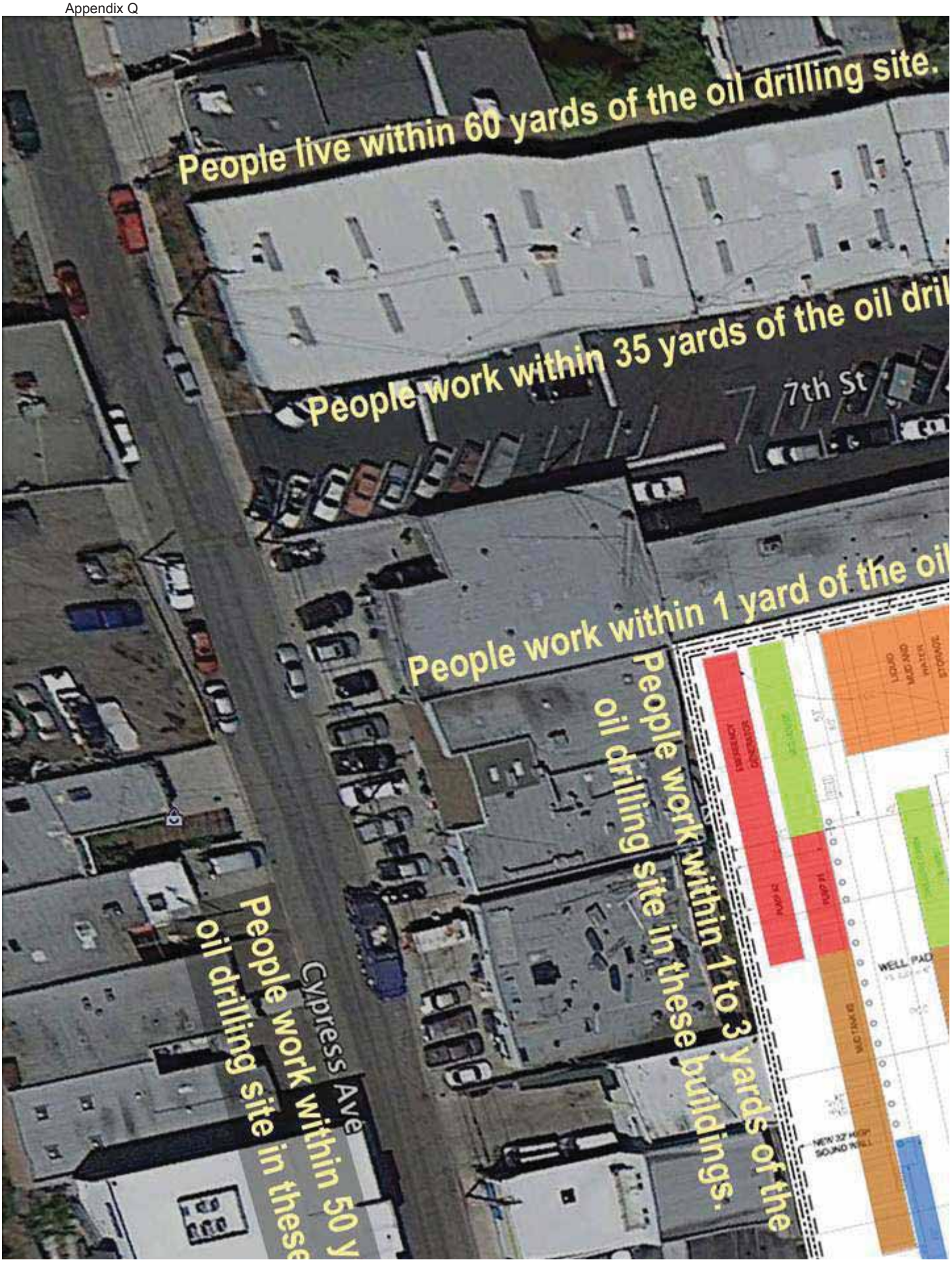
The lack of a plan for a robust fire suppression system shows negligence and disregard for the safety of the people of Hermosa Beach in my opinion.

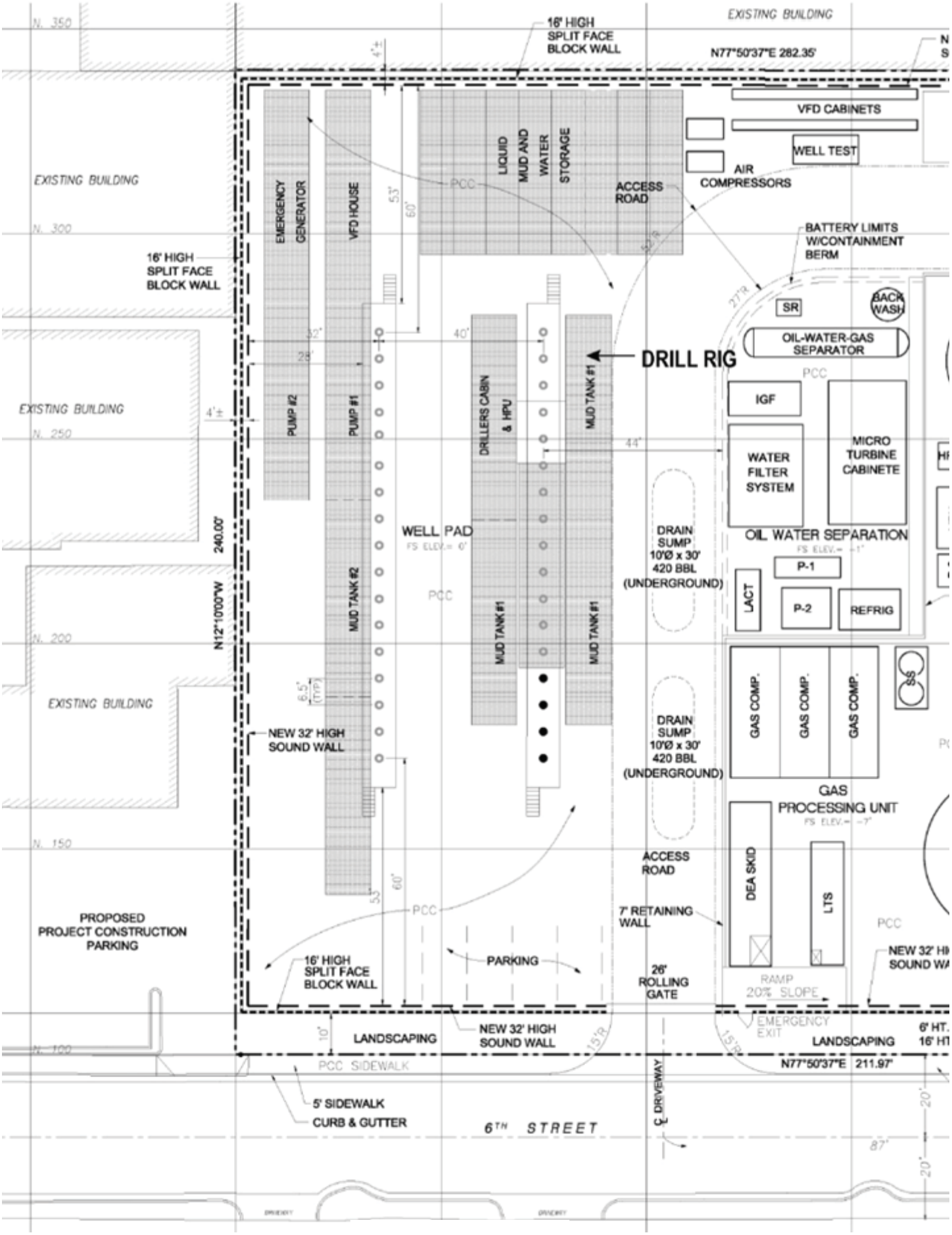
Since the oil company refused to do a simulation of the impact of this project on the community of Hermosa Beach, I have created a simulation by illustrating my opinion under the protection of freedom of speech and freedom of the press.

Please add these images to the collection of public comment on the Draft Environmental Impact Report.

Thank you,

Brad Sorensen
803 Bard Street
Hermosa Beach, CA 90254
310-802-8082
BradSorensen.com
sorensen.design@gte.net


People live within 60 yards of the oil drilling site.
People work within 35 yards of the oil dril
7th St
People work within 1 yard of the oil
People work within 1 to 3 yards of the oil drilling site in these buildings.
Cypress Ave
People work within 50 y
oil drilling site in these
WELL PAD


EXISTING BUILDING
16' HIGH SPLIT FACE BLOCK WALL
N77°50'37"E 282.35'
VFD CABINETS
WELL TEST
AIR COMPRESSORS
EMERGENCY GENERATOR
VFD HOUSE
LIQUID MUD AND WATER STORAGE
ACCESS ROAD
BATTERY LIMITS W/CONTAINMENT BERM
SR
BACK WASH
OIL-WATER-GAS SEPARATOR
DRILL RIG
PUMP #2
PUMP #1
DRILLERS CABIN & HPU
MUD TANK #1
IGF
WATER FILTER SYSTEM
MICRO TURBINE CABINETE
OIL WATER SEPARATION
WELL PAD
DRAIN SUMP 10'Ø x 30' 420 BBL (UNDERGROUND)
P-1
P-2
LACT
REFRIG
MUD TANK #2
NEW 32' HIGH SOUND WALL
GAS COMP.
SS
GAS PROCESSING UNIT
DEA SKID
LTS
PROPOSED PROJECT CONSTRUCTION PARKING
PARKING
7' RETAINING WALL
26' ROLLING GATE
RAMP 20% SLOPE
EMERGENCY EXIT
LANDSCAPING
PCC SIDEWALK
N77°50'37"E 211.97'
5' SIDEWALK
CURB & GUTTER
6TH STREET
℄ DRIVEWAY
240.00'
N12°10'00"W

End of SORB-4

Brittney

From: Greg Chittick [greg.chittick@mrsenv.com]
Sent: Friday, April 11, 2014 6:44 PM
To: Brittney Stephens
Subject: FW: To Ken Robertson for public comment on the oil project

Greg Chittick
Senior Engineer and Scientist
3140 Telegraph Rd Suite 2A
Ventura, CA 93105
805-289-3924
greg.chittick@mrsenv.com

From: Pamela Townsend [mailto:ptownsend@hermosabch.org]
Sent: Friday, April 11, 2014 4:06 PM
To: Edward Almanza; Luis Perez; Greg Chittick
Subject: FW: To Ken Robertson for public comment on the oil project

Pamela Townsend
Senior Planner, Community Development Dept.
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, CA 90254
(310) 318-0242
Hours: Mon-Thu, 7:00 a.m. to 6:00 p.m.
www.hermosabch.org

From: Oil Project
Sent: Friday, April 11, 2014 4:03 PM
To: Pamela Townsend
Subject: FW: To Ken Robertson for public comment on the oil project

---

From: Brad Sorensen <sorensen.design@verizon.net>
Sent: Friday, April 11, 2014 9:27 AM
To: Oil Project
Subject: To Ken Robertson for public comment on the oil project

To: Ken Robertson

5 April 2014

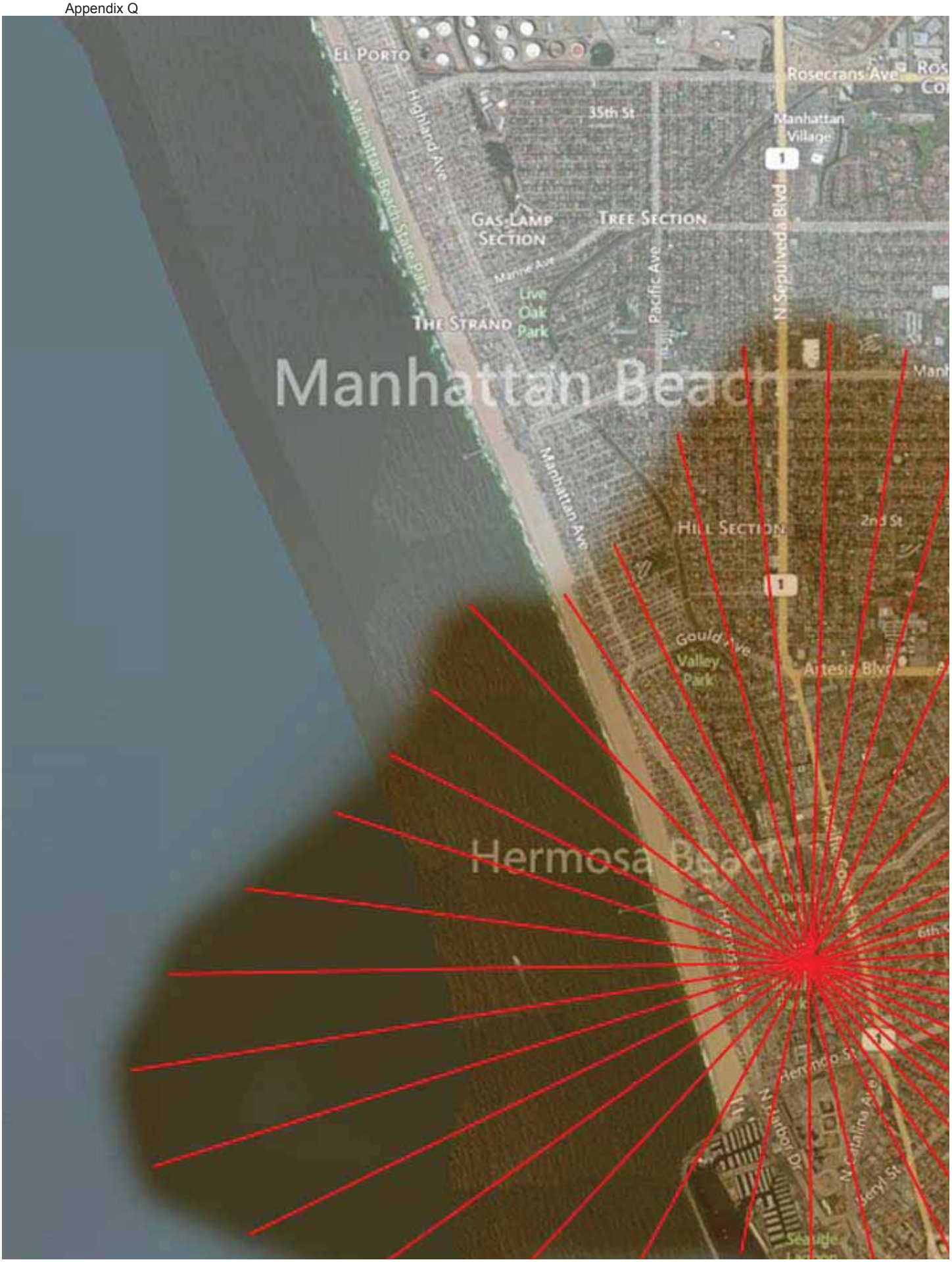
SORB-5

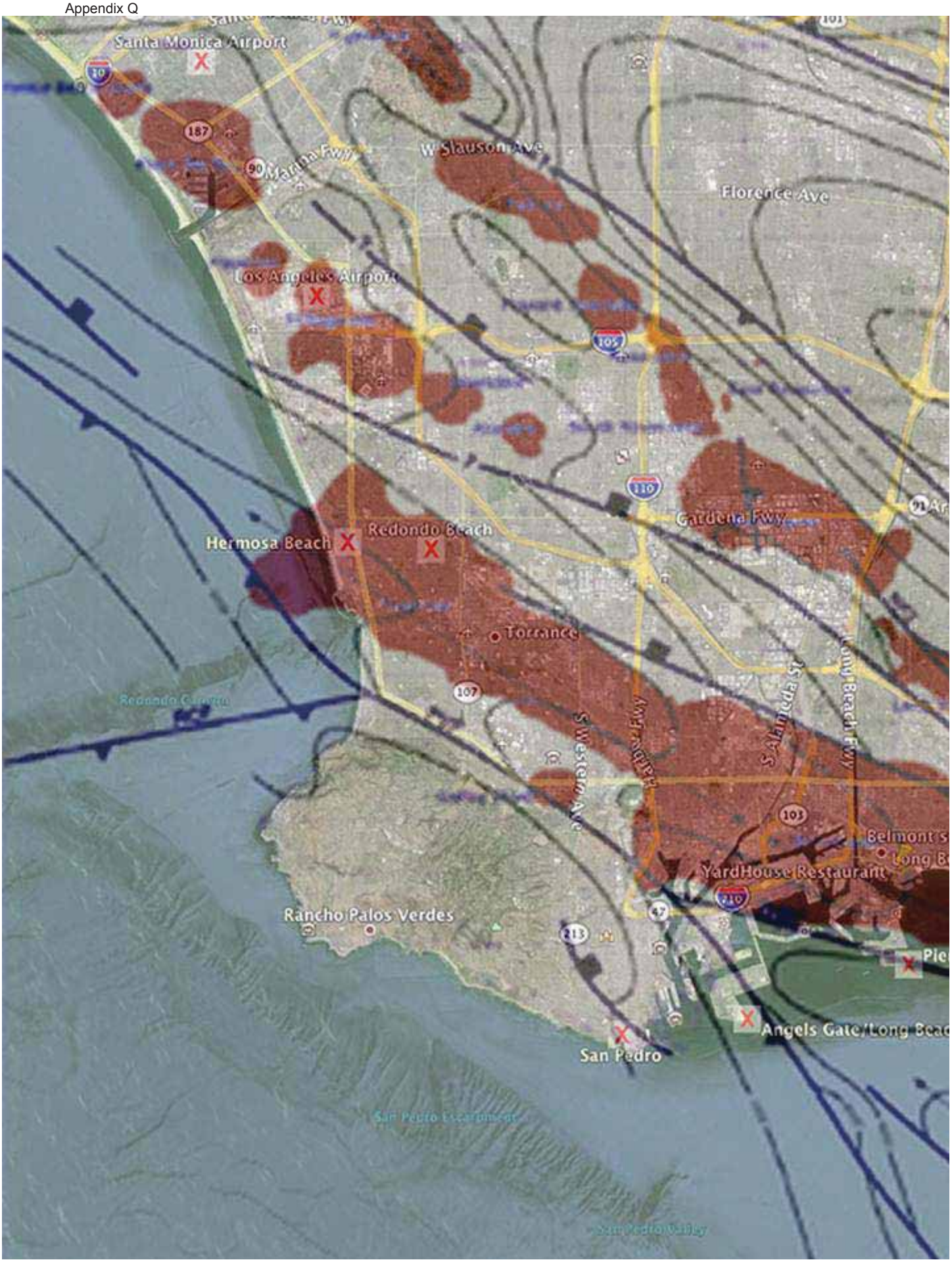
Protected by the right of free speech and the right of freedom of the press, this illustration is my opinion based on published geological data showing the oil patch below Hermosa Beach, Manhattan Beach, Redondo Beach and Torrance overlaid over a satellite image of the location of the proposed directional drilling site. Since the Bakersfield oil company has not provided detailed maps of the directions, distances and depths of the proposed wells, it is my opinion that in order to make the most profit, the oil company would consider the shape of the available oil patch under the cities of Hermosa Beach, Manhattan Beach, Redondo Beach and Torrance as their target drilling zones in order to make the highest profit possible, a portion of which goes to the Hermosa Beach schools and Hermosa Beach Tidelands and Hermosa Beach Uplands stakeholders. In my opinion, in order to make the most profit for the people of the City of Hermosa Beach, would the Bakersfield oil company plan to drill into the entire extent of the available oil patch under the cities of Hermosa Beach, Manhattan Beach, Redondo Beach and Torrance?

Please add these images to the collection of public comment on the Draft Environmental Impact Report.

Thank you,

Brad Sorensen
803 Bard Street
Hermosa Beach, CA 90254
310-802-8082
BradSorensen.com
sorensen.design@gte.net


El Porto
Rosecrans Ave
35th St
Manhattan Village
Highland Ave
Manhattan Beach State Park
Gas-Lamp Section
Tree Section
Marine Ave
Live Oak Park
The Strand
Pacific Ave
N Sepulveda Blvd
Manhattan Beach
Manhattan Ave
Hill Section
2nd St
Gould Ave
Valley Park
Artesia Blvd
Hermosa Beach
Hermosa Ave
Herondo St
N Harbor Dr
N Catalina Ave
Beryl St


Santa Monica Airport
Marina Fwy
W Slauson Ave
Florence Ave
Los Angeles Airport
Hermosa Beach
Redondo Beach
Gardena Fwy
Torrance
S Western Ave
Harbor Fwy
S Alameda St
Long Beach Fwy
Belmont S
YardHouse Restaurant
Rancho Palos Verdes
San Pedro
Angels Gate/Long Beac

End of SORB-5

Brittney

From: Oil Project [oilproject@hermosabch.org]
Sent: Tuesday, April 15, 2014 11:34 AM
To: 'Edward Almanza (superpark@igc.org)'; Luis Perez; Greg Chittick
Subject: FW: To Ken Robertson, please add these images to the public comment on the oil project

Pamela Townsend, Senior Planner
City of Hermosa Beach
Community Development Department
1315 Valley Drive, Hermosa Beach, CA 90254
Phone: (310) 318-0242 Fax: (310) 937-6235
Email: ptownsend@hermosabch.org
Hours: Monday-Thursday, 7:00 a.m.–6:00 p.m.
Website: http://www.hermosabch.org
Municipal Code:http://www.hermosabch.org/departments/cityclerk/code/

From: Brad Sorensen [mailto:sorensen.design@verizon.net]
Sent: Monday, April 14, 2014 8:36 PM
To: Oil Project
Subject: To Ken Robertson, please add these images to the public comment on the oil project

To: Ken Robertson

14 April 2014

SORB-6

There are hundreds of documented fires, blowouts and explosions that we have collected because of the threat to the people of Hermosa Beach.

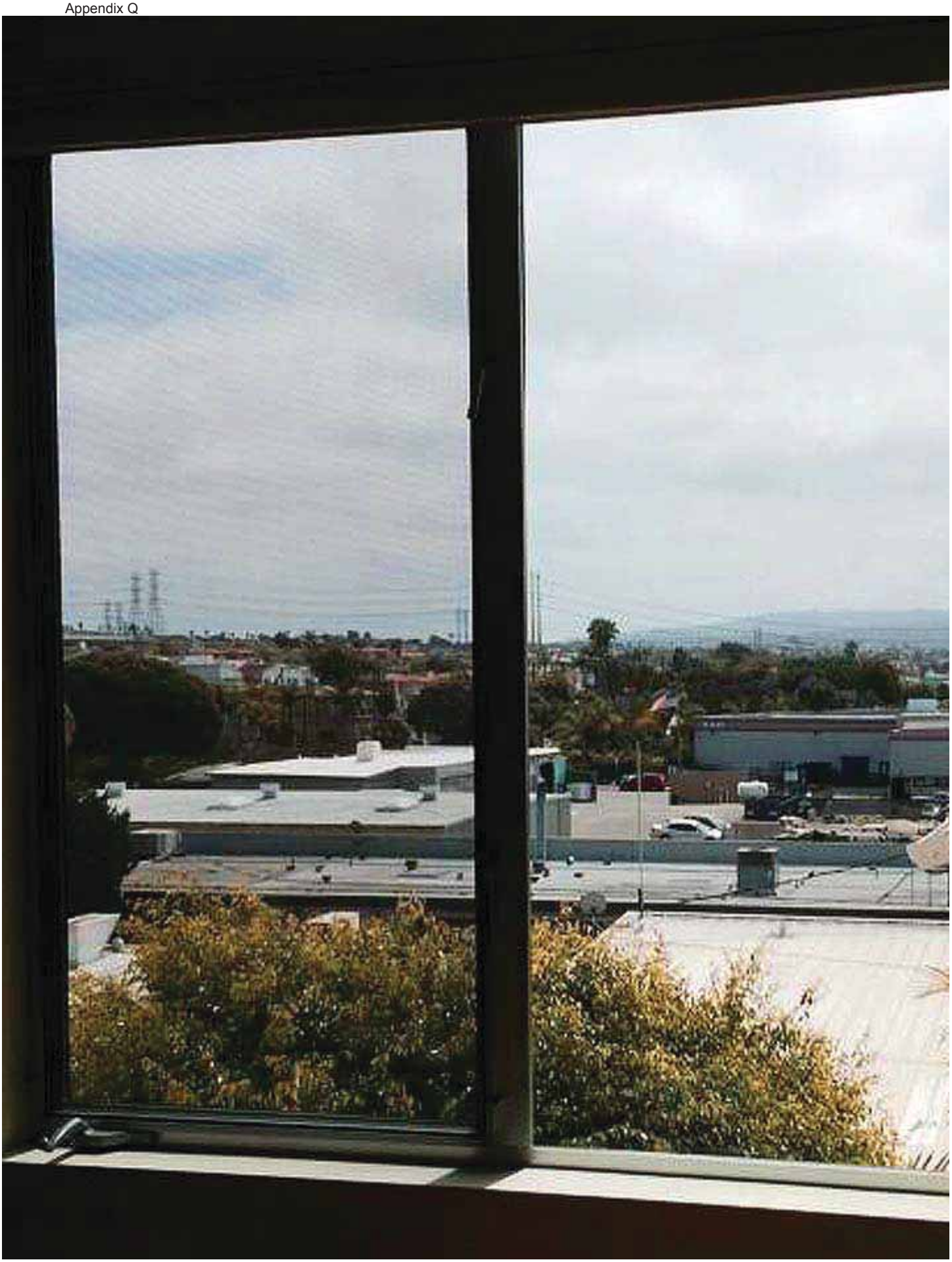
The lack of a plan for a robust fire suppression system shows negligence and disregard for the safety of the people of Hermosa Beach in my opinion.

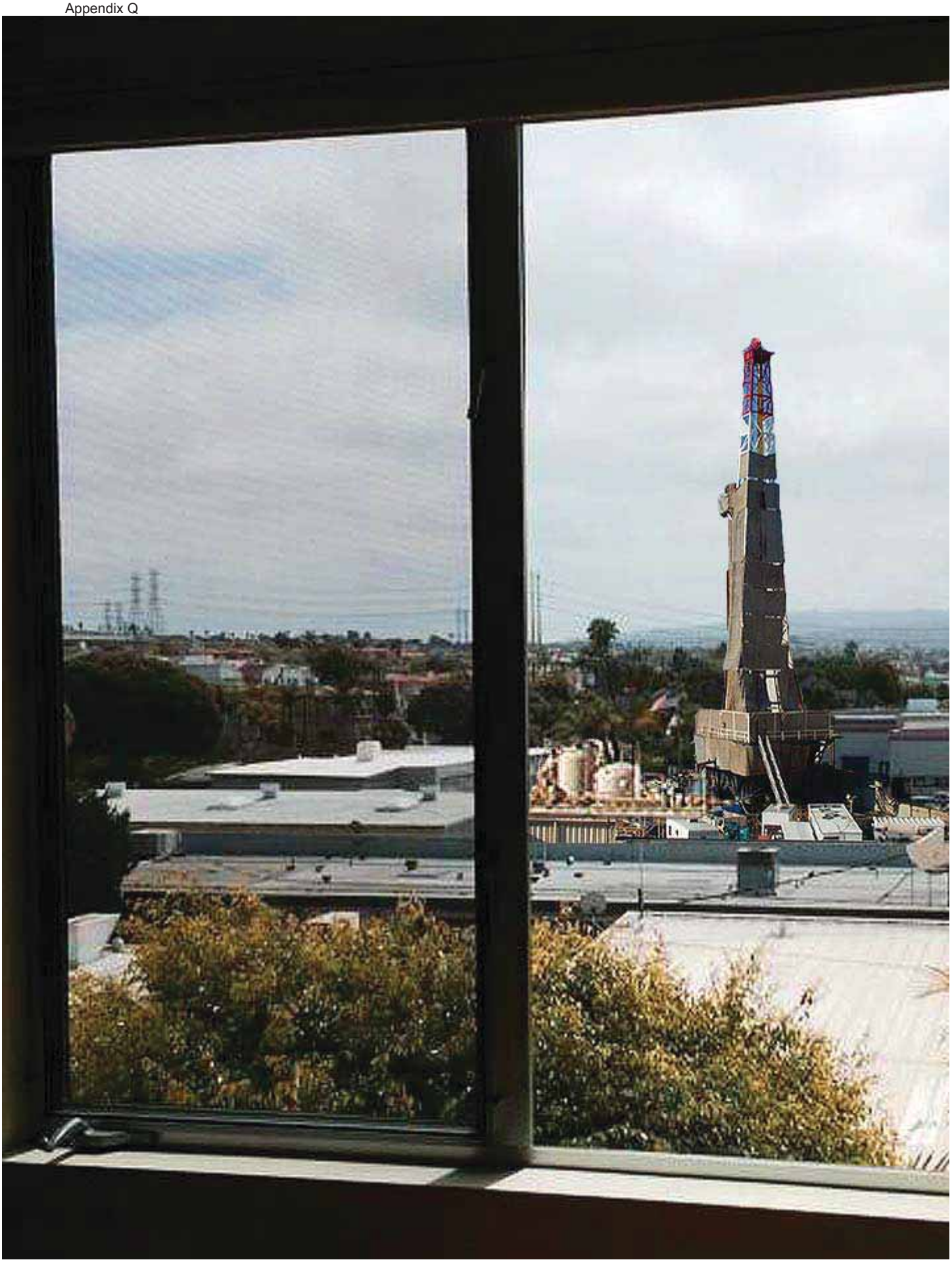
Since the oil company refused to do a simulation of the impact of this project on the community of Hermosa Beach, I have created a simulation by illustrating my opinion under the protection of freedom of speech and freedom of the press.

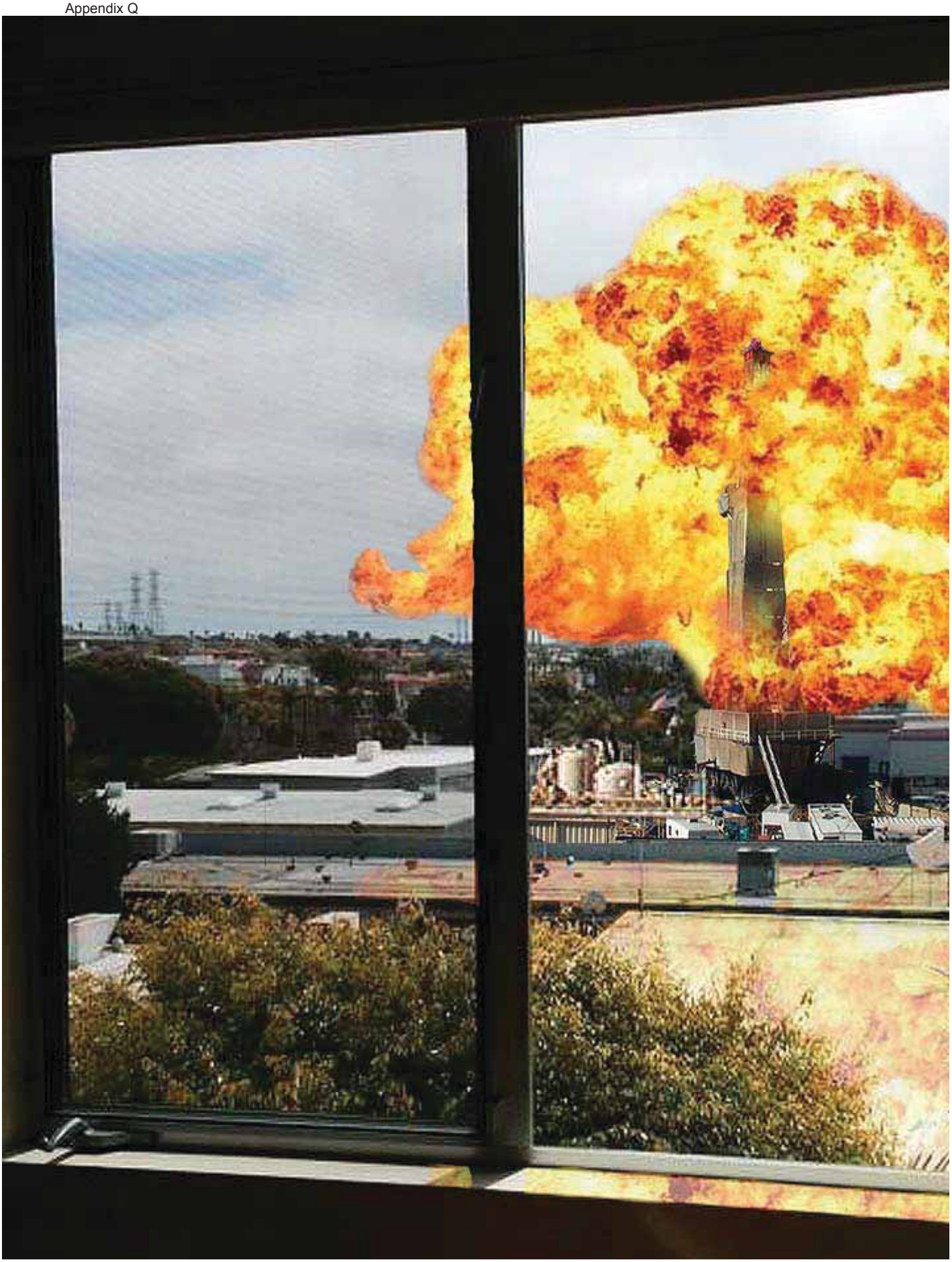
Please add these images to the collection of public comment on the Draft Environmental Impact Report.

Thank you,

Brad Sorensen
803 Bard Street
Hermosa Beach, CA 90254
310-802-8082
BradSorensen.com
sorensen.design@gte.net







End of SORB-6

1540 2nd street
Manhattan Beach , CA 90266
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hello my name is Elisabeth Spielvogel and I am a resident of Manhattan Beach, California. I have heard a lot about the oil drilling that may occur in Hermosa Beach. I live very close to Hermosa, so the drilling would also most likely have an effect on my family and I. I am a Junior at Mira Costa High School, in Manhattan Beach. I am in Mrs. Nielson's chemistry class. I do not think that drilling off the coast of Hermosa Beach is a smart or ethical idea. I believe that you should opt out of the idea of drilling. SPIE-1 SPIE-2

Even though you may take many safety precautions before beginning; drilling can have very serious consequences if even the slightest error is made. Oil spills, fires, leaks, and explosions are only a few of the consequences that can come along with drilling. Hermosa Beach, California is such a beautiful place to live; why would you want to put all of that beauty at risk? Almost 50% of Hermosa residents live within 0.5 miles of the drilling site. Air pollution will increase, releasing harmful toxins into the air. Would you rather breathe clean air or air filled with toxins and harmful gases? I think we both know the answer to that one. The chemicals in the air highly increase the risk of asthma attacks, bronchitis, heart attacks, heart failure, and headaches. Do you really want to people of Hermosa Beach to suffer from these illnesses? SPIE-3 SPIE-4 SPIE-5

When you are looking out your window in the morning at the beautiful city of Hermosa, do you really want to be staring at a 110 feet tall oil rig? Absolutely no part of a 110 feet tall oil rig sounds appealing to the eye. The traffic will also heavily increase. This will cause chaos and frustration for everyone. It will also put teen drivers more at risk for accidents. There will be constant noise and light from the construction. When mothers are trying to put their children to bed, they do not usually want to hear the continuous sound of drilling from their windows. The drilling would go on 24/7. Drilling also increases the risk of earthquakes. California is already at a high risk for earthquakes, but the drilling would put us at an even higher risk. Why cause environmental harm and risk to our beautiful city? Let's keep Hermosa the peaceful community that it is, and avoid drilling. SPIE-6 SPIE-7 SPIE-8 SPIE-9 SPIE-10 SPIE-11

The oil drilling is expected to go on for 35 years, if put into production. 35 years is a very long time. When children grow up in Hermosa, their parents want them to feel like they love where they live, and remember the memories that they make here for the rest of their lives. Do SPIE-12

you really want your future children's memories to include air pollution, oil spills, and staring at a 110 feet long oil rig every day? No. You want your children to remember Hermosa Beach as the beautiful beach town that you got to experience. It is not fair to them. SAY NO TO DRILLING. Not to mention that the company that would be doing the drilling, E&B Natural Resources, has spilled almost 16,000 gallons of toxic fluid over the past six months in California. That fact proves itself that drilling will most likely result in either an oil spill or the pollution of our beautiful ocean. SPIE-13

You may say that Hermosa Beach will profit off of this drilling. The money that could possibly be made comes no where close to being worth the damage that could be done to our community. By saying yes to drilling, this means that you are putting the beauty and safety of our community into the hands of E&B Natural Resources. Yes, some may claim to say that they know what they are doing, and can bring our community great wealth. But at the same time, they are losing more than gaining in the end. Drilling will ruin our great community's beauty. Many people come from all over the world to experience California. Many people come to Hermosa. When they hear about the drilling, people will be less inclined to come visit. Tourists highly inhabit the area in the summer time. The community would take a change for the worse. Say no to drilling, there is no positive outcome that is worth the environmental impact that it could have! SPIE-14

I have been researching the possible drilling in Hermosa Beach all week. The facts line up in opposition to the drilling. No amount of money that E&B Natural Resources could generate off of the drilling in Hermosa could add up to make all of the environmental problems worth it. Earthquakes, oil spills, fires, and explosions are only a few of the environmental problems that come along with drilling. Not to mention the many health risks that can be caused by breathing in the harsh chemicals that drilling releases; including: asthma attacks, bronchitis, heart attacks, heart failure, and headaches. Keep Hermosa, Hermosa. The people of this wonderful community love it just the way it is. They would appreciate it if you said no to drilling. Thank you very much for reading this letter, and I hope that you take some of what I said to heart. Have a nice day. SPIE-15

Yours sincerely,

Elisabeth Spielvogel

From: Lael [mailto:lael.stabler@verizon.net]
Sent: Monday, April 14, 2014 8:28 PM
To: Oil Project
Cc: Ken Robertson
Subject: Re: Comments for DEIR - Traffic Studies

The DEIR includes a review of two traffic studies prepared by the Applicant for the Proposed Oil Project, as well as an additional traffic study prepared by Stantec Consulting Services Inc. in January 2014. The latter was limited to an evaluation of baseline traffic conditions and potential traffic impacts as a result of relocating the City's Public Works maintenance yard. Based upon the dates these studies were conducted, they do not take into account actual traffic flow during peak summer days (Friday) and when school is in session. Accordingly, they do not establish an accurate assessment of existing baseline traffic conditions for purposes of determining how our streets and roadways will be impacted by increased oil project vehicle usage. STAL-1

The DEIR notes school hours (8:15 AM to 2:48 PM) and states that there would be heavy truck traffic (including 3+ axle heavy trucks and large trucks with trailers) during these peak hours but does not find that this creates a significant impact. The DEIR does not evaluate the overall impact the total additional traffic (trucks, employees and construction workers) would have at key congestion areas (Pier and Valley/Ardmore; Gould Ave. and Valley/Ardmore) during peak traffic hours. STAL-2

The DEIR notes that outbound trucks would be prohibited from using 190th Street and therefore would be rerouted onto PCH and Artesia Blvd. To analyze this new route, 13 intersections (designated as 45 – 57) were added to the study area, none of which appear to be located in Hermosa Beach. More importantly, the Addendum Study does not take into consideration the impact of trucks and trailer trucks turning left from 190th onto PCH. STAL-3

One of the mitigating recommendations in the DEIR is that trucks be limited to 65 feet in length. However, this is obviously not feasible for all site deliveries. Significantly, the intersection at Pier Ave. and Ardmore/Valley has several stop signs and cannot accommodate a large truck with trailer. Therefore, the DEIR should include the number and frequency of large trucks with trailers that will be accessing the City's streets throughout the entire project and evaluate how this will impact traffic during peak and non-peak hours. STAL-4

Lael Stabler
66 – 18th Street
Hermosa Beach
310 379-3300
Lael.stabler@verizon.net

RECEIVED
MAR 1 8 2014
COMMUNITY DEV. DEPT.

E. J. Stemig
900 Loma Drive
Hermosa Beach, CA 90254
Phone & Fax: 310-379-2745
E-mail: ej_stemig@juno.com

March 15, 2014

City Council Members
City of Hermosa Beach

Subject: Oil

First off, I want to thank the City Council for the studies, the experts, the meetings to give all interested a wealth of information regarding the E&B proposal to drill for oil here in Hermosa Beach. And I'm glad to see that we have some new members on the Council – sometimes new pairs of eyes see what others have come to overlook.

I have attended the meetings, picked up and attempted to understand the thousand plus pages of the reports and at the same time have been very conscious of all news items concerning oil production, movement, etc. Concerning the proposal here in Hermosa Beach, I have attempted to approach it with an open mind. It would be easy to just vote "Yes" and see what happens next. But I find I have a number of concerns, and the following is a summary of my concerns, comments and questions:

The Drilling Plan. I note that the plan is to start with three primary test drills, two out under the tidelands and one going north from the "site" under the "uplands", and the plan emphasizes "NO FRACKING". A host of the recent articles I've read tell the horror stories related to fracking, but also give me the impression that in today's world, fracking is a given to retrieve any significant quantity of oil from a well. I think I see the train coming down the track here. So we approve the project, significant funds are spent setting up the entire operation, and then we find that the only way to retrieve sufficient quantity is to resort to fracking – sorry folks, you'll just have to learn to live with it. Furthermore, as the report indicates, there has been oil extraction in the uplands of Hermosa in years past, so I predict that there is little or no potential for significant extraction in the "uplands" portion of the proposed site – so the City need not worry about how to spend the unencumbered funds and the homeowners need not worry about any homeowner residuals. STEE-1

Earthquakes. There have been recent newspaper articles about earthquakes in oil production areas of North Dakota and Ohio, (Ohio – operations shut down after quakes), this in areas not necessarily known for earthquakes. In the event of an earthquake here, I can write the oil company's response for them now, quote: "We all know that this is earthquake territory, and their strength and timing are completely unknown, therefore there is no evidence whatsoever that the drilling and extraction activities are in any way related to the damage caused." STEE-2

Proximity. The real issue is the attempt to set up and operate an oil production function in a highly dense residential area – I don't know of an area more dense that Hermosa Beach where this has been done and deemed satisfactory. I note the report indicates that Beverly Hills has passed an ordinance that prevents any new drilling within the city – has anyone followed up on the reasons for this? I note too that the State of Texas (where I believe the people know a lot more about oil production than we do here in Hermosa Beach) do not allow drilling within less than 1,500 feet of a residence, school, or otherwise populated building. Using that as a reasonable benchmark, I drew a 1,500 foot circle on a map of Hermosa and was surprised at how far it reached: Up to 11th Street to the north, 1st Place to the south, west to Hermosa Avenue and east about a block and a half beyond PCH. According to the Health Impact report, this would encompass more than one fourth of the residences in Hermosa Beach. Plus include all of Clark Field, South Park, and the majority of the Green Belt south of Pier Avenue where many of our children and adults go out in the open air for physical activities. The reports also give probabilities of potential hazardous mishaps, mostly quite low. This is the equivalent of saying it is OK to spend life sitting on a hand grenade because it probably won't go off. STEE-3

Health. The Health Impact Assessment gives a nice recap of the potentials, and points out that our present air quality is not entirely "pure", and of course the potential additional risk depends on proximity (within the 1,500 foot circle?)and your present state of health. If you have no respiratory or other issues now and a high tolerance against cancer-causing toxins, you can probably live within this area with limited additional problems; but if you are not in perfect health now, you're on your own! Perhaps the City could provide some sort of "health meter" within the parks and green belt so that parents can make informed decisions whether they or their children are healthy enough to participate in open air physical activities here. STEE-4

Pipeline. I was not able to get an estimate as to when the proposed pipeline was to be built through three cities. Of course, it makes no sense to build pipelines until you have product to transport, and then it is a question whether the three cities involved will freely permit. So it stands to reason that a fair amount of time will pass with large tanker trucks traversing our streets for a number of years if not throughout the project. STEE-5

Traffic. I understand there is intent to make Valley Drive totally one-way. Instead, it would make more sense to make it two-way including the one block area from Second Street to Herondo which is presently the only section that is one-way. Then all the heavy equipment transport as well as the tanker trucks could readily move to and from the site without encumbering other narrow streets within Hermosa. If it would take a small strip off the green belt to accomplish this, that would be the least intrusive and least costly part of the entire endeavor. STEE-6

Move of Maintenance Yard. It is hard to fathom the possibility of moving the Yard from a somewhat isolated location to space next to City Hall, taking up parking space, and into an area bordered on the south and west sides by multi-unit residences. All I can say is STEE-7

"NIMBY", (Not in my back yard). What a way to enhance the vision of Hermosa Beach! Have the homeowners along the south and west sides not taken issue with this?

Home Values. The Cost Benefit section spent a lot of effort trying to determine what effect the project would have on the city's property tax collection base, but little clarification on the actual effect on the homeowners themselves. It could not identify a significant effect on home value. One comparison was made to a Wilmington location where lack of building space resulting in new housing being built nearer to an existing oil extraction operation. With all due respect to our neighbors in Wilmington, I hardly see this as a reasonable comparison. According to Zillow, the average home value in Wilmington is $346,000 and in Hermosa is $1,200,000. So let me ask the reader: If you have $1,200,000 in your pocket to buy a home in Hermosa, would you look first in the area near an upcoming oil drilling site or a site further away (outside the 1,500 foot circle)? Perhaps if a discount were offered -- -- 10%?, 25%?, would it take more to entice you? My unprofessional opinion is that the minimum effect for the nearest properties would be at least 25%, tapering down to 10% towards the outside of the 1,500 foot circle. With over 25% of the Hermosa homes within the 1,500 foot circle, you do the math. STEE-8

Bonding. Hearing some of the horror stories about oil companies abandoning ship if a serious problem occurs, I strongly recommend that a significant bond be required for the life of the project if it goes forward, so that the City and the owners do not get stuck with the fallout. STEE-9

In Summary. I attended the City Council meeting in 1998 when the Council questioned the potential impacts of an oil drilling function in the middle of this high-density City and came to the conclusion that it simply was unsafe. Nothing has changed. I note that in a somewhat similar situation, the Los Angeles Airport bought out whole neighborhoods, and offered noise reduction techniques to others nearby to prevent the legality problems. Can it be legally assumed that the residents near the site, if not in all of Hermosa Beach, do not have the right to avoid suffering health and well-being issues and property devaluations? If they do have that right, how could the City be held legally liable for $17.5 million for stopping an illegal action? If nothing more, the City and E&B need to be prepared for huge class-action lawsuits if this goes forward. STEE-10

E J Stemig, Homeowner
900 Loma Drive
Hermosa Beach, CA 90254

CC: Tom Bakaly, City Manager

CC: Ken Robertson, Director, Community Development

Terri Dinubilo

From: Ella Swanberg <ellasbella10@gmail.com>
Sent: Monday, March 17, 2014 9:45 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

424 29th St
Hermosa Beach, CA 90254
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hello, my name is Ella Swanberg. I am sixteen years old, and go to Mira Costa High School as a sophomore. I have lived in the beautiful city of Hermosa beach for my entire life. It is one of the most beautiful cities I have ever been too which leads me to my view of being dead set against the proposed oil drilling. SWAE-1

If Hermosa Beach were to start drilling, it could potentially be dangerous to the health of our citizens and sea life. The chances of an oil spill, are very high and if there were to be one it would kill tons of sea life. Not only could it potentially harm our wildlife and ocean, but oil drilling can increase air pollution. This could lead to both smog and a higher sickness rate. SWAE-2

Gas and oil companies have no liability and are in fact exempt from a number of federal environmental laws; The Safe Water Drinking Act, Clean Water Act, Clean Air Act and many more affecting the cities environment. SWAE-3

In addition to the effects oil drilling could have on the environment, it will increase the traffic tremendously. Not only for the months while they are constructing, but afterwards. There will be huge trucks driving through our little town, causing noise and traffic. The route these trucks would be taking would be passing by the elementary school which is unsafe for the young children. SWAE-4

As you would expect, noise pollution and traffic, will make Hermosa Beach a less desirable city to live in. All of the components of the drilling system are estimated to be .5 miles away from 50% of all Hermosa Beach homeowners. This of course will lower property value, therefore lowering property taxes which decreases revenue to Hermosa Beach. Not only will it lower property value, but it will become less of a tourist destination, lessening the business of the community shops.

Although there are many who agree with these reasons against the oil drilling, there are also people who believe it would be a great financial boost for our town, as a percentage of all revenue is promised to the city of Hermosa Beach, and its schools. Where in theory that is true, the fact is that there are no guarantees as to how much the city will make. The estimates that have been made have come from studies paid for by Macpherson, which makes the credibility questionable. SWAE-5

Oil drilling would be far from beneficial to Hermosa Beach. There are too many risks, including negative effects to our environment, citizens, and property. The only gain, which is not guaranteed, is financial. I believe that the risks outweigh the reward, thus Hermosa Beach should not move forward with the proposed oil drilling. Thank you for your consideration.

Yours sincerely,

To Mr. Ken Robertson, City of Hermosa Beach

By Hand

4/14/14

p 1 of 6

Some Comments and Questions Re: The EIR from William Victor, property owner of improved residential lot approximate 100 feet from the sand in Manhattan Beach and licensed attorney representing at one time or another including now other property owners — I have also been employed as an ordinary seaman on oil tankers and am aware of that alternative

I have been reading a hard copy of the Draft EIR and am unable to locate answers to many questions which may be in the Draft but I do not see —

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COMMUNITY DEV. DEPT

VICW-1

What I can see is that there is a considerable gamble on the safety and place held in perpetuity as a public place for recreation and enjoyment as decided in 1907 —

But this affects not only Hermosa Beach but neighboring communities along the entire California Coast and perhaps more —

VICW-2

I personally have been involved in the hazardous results of petroleum spill for over eight years — it is life-changing for the humans and properties involved.

Petroleum hazardous waste spills can't be imagined adequately by those

Who do not have the experience. p. 2 of 6

I am concerned with many items —

VICW-3 How are the EMT response times which "clearly missed goals" going to be mitigated — as noted at 4.6-3

What are the names of the persons who will be making day to day decisions on the drilling?

VICW-4 Have those persons been involved in oil spills before?

If so — what was the result?

~~[illegible]~~ Was it mitigated in each case? How? Fully mitigated?

Are any of the people who are involved in the proposed drilling plans, persons who were involved in other spills including in Freeport?

Who — what will they do differently?

Was insurance sufficient to

VICW-5 make the victims whole?

How many lives were (1) lost (2) impaired and (3) irreparably affected?

Are any of the equipment or any of these persons involved in still being remediated?

~~[illegible]~~ What spills are still not remediated?

What happened to the fish life?

VICW-5 continued

Is it true that fish were floating dead in the water as a result of certain of these spills?
What is the plan in the proposed drilling that will avoid these hazards?
Who are the proposed insurance carriers?
Has the company consulted to insure the project and what are the details of coverage?

VICW-6

Has anyone in the proposed applicant (E&B Natural Resources Management Corp) ~~been~~ or any associate who is or be involved with the oil drilling Project been with any other corporation in the Louisiana oil spills of recent years? ~~What~~ Please name that associate and what their involvement was/is in the Louisiana oil spills?
Did their employees in such oil spills - reduce "significant impacts" - as described in the City of Huntington Park" and how were they mitigated?

VICW-7

Does the applicant have references to the list of persons who have witnessed the work ~~are~~ induced directional drilling which was satisfactory to the environment and residents, Biological Resources, Air quality,

VICW-7 continued

drainage, Fire Hazard, safety, flooding, water quality, water supply, soil erosion, compaction, grading, noise, Public Services facilities & utilities, traffic/circulation, vegetation, reduction ~~&~~/eliminate of Toxic and hazardous waste?

VICW-8

What are the financial statements of ~~E&B Oil Drilling~~ the applicant? ~~That are~~ Will the Financial Resources of the applicant be adequate to handle an oil spill or the other significant impacts that are included in the risks of undertaking this project over the 30 years undertaking.

If they are adequate please let the communities including Hermosa Beach have the details of this financial capability or capabilities in realistic language without generalities?

VICW-9

Has attention been directed in the EIR to the fact that if there is a significant impact in Hermosa Beach it will also affect Redondo Beach, Manhattan Beach, El Segundo and perhaps the entire coast of California and Mexico?

Where is the attention directed on this Draft EIR?

What reparations are available financially to those who lose the use of their homes in the Beach Cities, and along the coast?
Has the government - Hermosa Beach, Manhattan Beach, the State or the Federal Government set forth a plan of assistance such as they do with natural calamities such as FEMA and flood, hurricane?
What additional care for the injured persons and homeless persons is planned?
What is the ~~ev~~ evacuation plan?

VICW-10

the 6.1.1 "No Project Alternative" is not seriously dealt with in this Draft EIR -
~~[illegible]~~
the section 6.1.1 is written so as to look like ~~the~~ Hermosa Beach is the only source of ~~[illegible]~~ crude oil demand from California -
Please name all of the other sources ~~[illegible]~~ besides the AES ~~[illegible]~~ Site Alternative at 6.1.2 -

VICW-11

Unless there are some answers to these questions and more which I do not have time to write, the "No Project Alternative" results in not selling the lives and paradise that the Smithtag has spent their lives developing

VICW-12

VICW-12 continued

for a project which more likely than not will result in impacting the environment and lives of people throughout the ~~[illegible]~~ Southbay for the greed of of the applicant primarily who appears to have shown a lack of reliability in its history, in alleged false advertising and generated discomfort throughout the South Bay ~~[illegible]~~ and will if the application is permitted for decades.

I apologize deeply for my poor handwriting and you may email me at VICLAW3@gmail.com if you have a question about anything I have written. I did not have time to dictate this to secretaries. I have retained a copy and can translate it if necessary.

Thank you for considering public comment and answering these questions.

VICW-13

I also suggest that the primary author of the EIR be invited to speak at a public meeting or public meetings to answer questions that may not have been answered, or are not clear.

Respectfully submitted -
W. Victor property owner
in Manhattan Beach.

921 Boundary Place
Manhattan Beach, CA 90266
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hello, my name is Elliot Walters and I am a sophomore at Mira Costa High School. I would like to address the issue of oil drilling by E&B in Hermosa Beach. After some research, I have discovered that the process of the oil drilling will not impact the community in a significant way if it is eventually implemented in Hermosa Beach. For this reason I believe oil drilling in Hermosa Beach should be permitted, and I will provide more support for this argument in a few paragraphs. WALE-1

If no action is taken, the oil will still be in the same place, under the sand at Hermosa Beach. If the oil drilling is permitted, it will give the city of Hermosa Beach a very significant amount of revenue in royalties from the drilling. While the costs for funding the project may be high, the cost will be even higher if the drilling is not approved by voters. The city would be forced to pay E&B a settlement of seventeen and a half million dollars, opposed to a settlement of three and half million dollars, in addition to the costs for the project which would add up to about seven and a half million dollars, if the project is approved. The revenue estimation over a course of 35 years if the project is approved adds up to a total between one hundred and eighteen million dollars and two hundred and seventy million dollars. This would pay the city back in full for the funding of the project and create a large amount of profit. WALE-2

The profits made from the oil drilling could be used to beautify Hermosa Beach, add new facilities, and improve the existing structures in the city. A personal suggestion of mine is to use the profits to fund research on alternative power sources to oil, such as the use of hydrogen gas as a fuel source. The money made from the oil drilling could potentially eliminate the need for oil drilling and prevent the cause for controversies similar to the one I am currently writing about. The use of hydrogen as a fuel source opposed to the use of oil could be helpful to the environment in terms of emissions. Hydrogen fuel releases water vapor as an emission, while

gasoline, obtained from petroleum, releases large quantities of Carbon Dioxide into the air, which brings on global warming when trapped in the earth's atmosphere. If the city of Hermosa Beach supported research for this new source of fuel, and informed its residents about hydrogen fuel, the use of oil may be unnecessary one day.

One reason the residents of Hermosa Beach do not want the oil drilling is because of the aesthetically unpleasing features of the project. The facility where the oil is recovered is blocked by a 16 foot high wall, and all power lines and poles are underground, so the site is not identifiable as an oil recovery location unless one has prior knowledge of the facility's site. The pipe that transports the oil is concealed underground and leads to the facility's collection center, so the oil collection will be virtually unnoticed by the residents of Hermosa Beach. WALE-3

A point that can be used against my input is the occurrence of an oil spill during the process of oil drilling. It has happened before, and has caused devastation to a location's environment. The oil pipe route proposed by E&B avoids areas with frequent human activity, and the pipes transporting the oil itself are reinforced with many layer and will be constantly monitored in case of an oil spill. WALE-4

In this situation, the most sensible course of action is to approve drilling in the city of Hermosa Beach. There are arguments against the action, which are completely viable, but I personally believe that the benefits from the drilling outweigh the harms of it. The city will gain a large amount of revenue from the project, which can be used for many different pursuits, such as improving the city's overall condition as a whole, and supporting new sources of energy. Thank you for reading my opinion on the situation, and I hope you take it into consideration. WALE-5

Sincerely,
Elliot Walters

525 5th Street
Manhattan Beach, CA 90266
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

Hello. My name is Declan Wright. I am a sophomore at Mira Costa, I am on the volleyball team and a member in the Student Government. I am also in Ms. Nielsen's Chemistry class, she is having us write a letter stating our opinion on the Hermosa Drilling Project. I strongly believe that the City of Hermosa Beach should not let E&B Natural Resources drill for oil in or any where close to Hermosa beach. I will now proceed to write reasons that I believe in my opinion. WRID-1

I find myself frequently swimming and playing in the water and sand at the beach. I play beach volleyball in both Hermosa Beach and Manhattan Beach and if something were to go wrong and there was an oil spill the beaches would be ruined leaving me and tons of citizens and tourists in so much anger and sadness. I did my research on the Santa Barbara oil spill in 1969 and if one were to occur here it would be very similar. The oil would cover the sand that it reaches and making the beaches ugly and the water would be disgusting, thus ruining my beach volleyball days in Hermosa and all of my water activities would be gone. I can't imagine life without the beach and water, and many of my classmates and citizens would agree with me when I say that an oil spill would be terrible for all of us and ruin the place we love most, our beaches. WRID-2

Not only would it destroy my days and summer at the beach but it would kill many habitats for sea animals that live so peacefully in our bay. In the 1969 oil spill in Santa Barbara, the environmental effects were unimaginable and terrifying to read about. At least 3,686 birds died in the oil spill, sea lions and elephant seals were killed in the spill as well. Even small organisms like barnacle were killed in the oil spill, and some other organisms had a mortality rate of eighty to ninety percent during the oil spill. These animals did nothing wrong they lived among the surfers and the swimmers but due to Santa Barbara's choice of allowing drilling for oil these innocent animals were killed in a human mistake. No animals that live in our waters deserve to be massacred by a human error. The innocent animals that have made their homes in the shallow waters of Hermosa and Manhattan should not be put in this situation they are WRID-3

animals just like us.

Tourists not only love the sea life in Manhattan and Hermosa they love going to the beach over summer or spring break. About 3.8 million people visit Manhattan Beach and Hermosa Beach annually, this is a vacation spot for so many. If an oil spill were to occur the only visitors to come here would be reporters taking pictures of the mess. The number of tourists in Manhattan and Hermosa would drop heavily, the local stores, that we love so much, would be very affected by an oil spill. It could potentially destroy the sales in stores famous for their beachwear. Relating back to the 1969 oil spill, all commercial fishing off of the Santa Barbara was suspended in the areas covered in the sea of black. Tourism in Santa Barbara and in Santa Barbara County dropped very rapidly. I do not want this happening to my town, and I don't think you would like to see this happen to your great town. WRID-4

I know what you are probably thinking right now it is that the City of Hermosa Beach would have to pay E&B Natural Resources the hefty loan if they vote to not let them drill. 17.5 million dollars is a huge loan to have to pay back but it is worth it. The beach is a place for me to go and forget all my worries behind and to me the beach is priceless. To live in these towns is such a privilege and to take advantage of that is very dumb in my opinion. Money couldn't ever buy the beach from me it is so priceless. The feeling you get when riding a perfect wave in the warm sun with a huge smile on your face and with a clean perfect beach in front of you is amazing and I never want to risk losing that feeling I get. WRID-5

I may be just another kid that you are getting a letter from but I think my opinion still matters no matter how young I am. The beach is mine too and I never want to risk harming it or harming my town. The beach is priceless and I believe that Hermosa Beach should not let E&B Natural Resources drill into it or anywhere near it. The sea life in our waters is plentiful and amazing and it would break my heart to see the innocent animals living here killed or being in risk of death because of humans. The beach is beautiful and should never be taken advantage of for oil or for money, therefore, there should be no drilling in Hermosa Beach.

Yours sincerely,

Declan Wright

Terri Dinubilo

From: Cindy Zhou <cizhou98@gmail.com>
Sent: Monday, March 17, 2014 11:27 PM
To: City Clerk
Cc: tnielsen@mbusd.org
Subject: Input on Drilling in Hermosa

1947 Manhattan Avenue
Hermosa Beach, CA 90254
March 17, 2014

Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

According to the following compiled information, Hermosa Beach should not be drilled for oil because of financial, environmental, and health reasons, and deeply concerning issues as well. As a resident of Hermosa Beach, I also believe that it is detrimental to the spirit and history of Hermosa Beach to allow oil drilling to happen on its premises. ZHOC-1

It is true that Hermosa Beach can benefit from the profit made with the oil drilling, but it can also ruin the real estate values and its tourist industry. The city of Hermosa could with the funds to improve the city and have a larger task force of lifeguards, police, and firefighters. Yet Hermosa already have all that and will honestly be better even without the money. ZHOC-2
Hermosa Beach is also famous for its fabulous beach scene and wonderful tourist spots. What would happen when all of it is debilitated by the oil drilling happening right under Pier Avenue? ZHOC-3

The oil drilling will destroy the already fragile marine ecosystem that we have in our ocean. Although E&B has assured us of the slim chance of an oil spill, can you really risk the lives of the precious organisms under the water? ZHOC-4 Because E&B will be allowed to drill under any part of Hermosa Beach, it means that their injection wells and other drilling activities could alter the pressures underground and cause old faults to rub against each other again, creating new and dangerous earthquakes. ZHOC-5

By allowing oil drilling in Hermosa, we are endangering our own health and body. ZHOC-6 E&B is exempt from regulations that supervise the amount of pollutants produced in the water and air. ZHOC-7 This means that the air we breathe everyday and the water we drink will be affected by the oil drilling. Traffic will also be increased when production of the oil drilling begins, influencing the flow of traffic on the streets, which will lead to more stress upon day workers and students driving to school. ZHOC-8 Another important factor is our children. The elementary school and middle school in Hermosa Beach both encourage walking to school and back, and the heavy traffic could jeopardize the children's safety and freedom.

Overall, Hermosa Beach is a very close and tight-knit community. We know our neighbors across the street, the family a few streets down, out friends on the strand that we go surfing with every weekend. Do we want to risk their and our lives by voting for an unnecessary drilling that could very likely impact our homes in such harmful ways? Therefore, under such incriminating evidence, the residents of Hermosa Beach should vote against oil drilling in Hermosa Beach. ZHOC-9

Yours sincerely,

Cindy Zhou

Terri Dinubilo

From: Mason Zisette <masonzisette@gmail.com>
Sent: Monday, March 17, 2014 10:05 PM
To: City Clerk
Cc: tnielson@mbusd.org
Subject: Input on Drilling in Hermosa

202 Ocean Drive
Manhattan Beach, CA 90266
March 17, 2014
Mayor Michael DiVirgilio
Council Members Peter Tucker, Nanette Barragan, Carolyn Petty, Hany Fangary,
City Manager Tim Bakaly
City of Hermosa Beach
1315 Valley Drive
Hermosa Beach, California 90254

Dear Mayor DiVirgilio, Council Members Tucker, Barragan, Petty, and Fangary, and City Manager Bakaly:

My name is Mason Zisette, and I am a resident in Manhattan Beach. I live on the border of Hermosa and Manhattan Beach, so I feel that I should have an opinion on the topic of oil drilling off the coast of Hermosa Beach. In my opinion I believe that the majority of the residents in Hermosa Beach, along with myself, would rather not have oil tankers off of our beautiful beach. The reason being is that ; one, the oil drilling could produce mass amounts of tar to be washed up on our beaches, two, the oil could leak and cause a massive problem with our marine life, and three, the proposed drilling site is 0.5 miles away from local Hermosa Beach residents, which could cause health hazards. ZISM-1

One of the most annoying things ever is to step on a huge piece of tar, while enjoying a wonderful day down at the beach. Rarely does this anoince happen now, but with oil tankers right off the coast, there is a very high chance of this happening quite often. Not only is this an annoying thing for humans, but also for marine life. If tar is consumed by fish or other marine life, it could cause the animal to become very ill, or even cause the animal to die. ZISM-2

Lets go back to April of 2010, when the Gulf of New Mexico had a tragic oil spill. That was a horrific event. It affect the cities around the spills revenue, the restaurants, and it caused the people living in this coastal cities much damage, for months they could not swim in the contaminated water, for health reasons. This also caused a massive problem with the restaurants, due to the fact that they could not serve any seafood items, because no one would trust that they wouldn't be biting into contaminated fish. Lastly, this affected the revenue of the surrounding cities greatly. Due to this spill, no one wanted to visit these places because they lost their best attraction, the amazing beaches. Now, if we decide to drill for oil off of our coastline, all of these terrible things could happen to our great city of Hermosa. ZISM-3

Finally, this idea of drilling oil in Hermosa Beach, could cause serious health issues with the residents of Hermosa. As of right now the proposed drilling site for this, is only 0.5 miles away from local homes. This is absurd in my opinion. I believe the last thing we want is to have our local residents become sick and ill from this drilling, and with all of that polluted air coming out from the refinery, thats just what we are going to get. I believe that this is one of the biggest issues with this whole idea. The residents safety should always be the main priority. ZISM-4

In conclusion I would like the make a counter argument for an opposing opinion about the oil drilling. Some people would say that they are in support of the drilling because of all the money that would come along with it. I would ask those people, is the safety and well being of the residents of Hermosa Beach less important ZISM-5

you than money? In my opinion, that answer is no, no it is not, and that is why I believe that there should not be any drilling in the waters of Hermosa Beach. Thank you for taking the time to read this letter.

Yours sincerely,

Mason Zisette

E&B Oil Drilling & Production Project
Final Environmental Impact Report
Public Draft Comments
Individuals

Cameron Alexander

Comment #	Response
ALEC-1	Comment noted as not in favor of the Proposed Project.
ALEC-2	Comment noted Proposed Project would have air pollution, marine life, and traffic impacts. The DEIR addresses potential impacts to air quality, biological resources, and traffic in Sections 4.2, 4.3, and 4.13, respectively.
ALEC-3	The drilling component is not proposed to occur offshore, the drill rig and associated equipment would be located onshore at the Proposed Project site at 555 6th Street. Section 4.2 of the DEIR, Air Quality and GHGs, presents the air quality impacts of the Proposed Project including emissions from trucking. Sections 4.3 Biological Resources, 4.8 Safety, Risk of Upset, and Hazards and 4.10 Land Use and Recreation discuss the potential for, and the impacts from an oil spill to biological resources and the community of Hermosa Beach.
ALEC-4	The Proposed Project does not involve the use of an offshore oil platform, the drill rig and associated equipment would be located onshore at the Proposed Project site at 555 6th Street. Potential impacts to marine life are discussed in Section 4.3, Biological Resources, of the DEIR. Potential impacts to water quality and the ocean are presented in Section 4.14, Water Resources.
ALEC-5	Impacts to traffic are discussed in Section 4.13, Transportation and Traffic.
ALEC-6	Section 4.5 Energy and Mineral Resources, discusses energy conservation and alternative energy sources. The Cost Benefit Analysis provides additional information on the potential economic impacts of the Proposed Project.

Rubie Amaya

Comment #	Response
AMAR-1	The potential for, and the impacts from an oil spill from a damaged pipeline are presented in Section 4.8, Safety, Risk of Upset, and Hazards of the DEIR. Impacts to animals and biological resources are included in Section 4.3 and to hydrology in Section 4.6. The EIR preparers agree that impacts to wildlife are important. Impact BIO-2 states: "A rupture or leak from oil Pipelines has the potential to result in a substantial adverse effect on native species and habitats, sensitive species, and biologically important habitats associated with the Pacific Ocean," and has classified this impact as Class I, significant and unavoidable
AMAR-2	The Proposed Project requires specific amendments to the City's General Plan, Municipal Code, and Local Coastal Plan as outlined in Section 4.10 of the DEIR. These amendments are specific to the E&B Oil Drilling and Production Project only and would not allow for additional factories or other industrial facilities to be built in Hermosa Beach. The Proposed Project would not displace any residential land uses.
AMAR-3	Comment that the commenter believes that the Proposed Project would not be beneficial to the City of Hermosa Beach is acknowledged. Section 4.5 of the DEIR includes a discussion of alternative energy sources. Section 4.2 provides an analysis of the Proposed Project air quality impacts including GHG emissions.
AMAR-4	Comment that the commenter believes that the Proposed Project would not be beneficial to the City of Hermosa Beach is acknowledged. Information on the financial issues associated with the Proposed Project is included in the Cost Benefit Analysis.

Chris Aniello

Comment #	Response
ANIC-1	Comment in favor of the Proposed Project is noted. The DEIR, prepared pursuant to the California Environmental Quality Act (CEQA), is intended to inform governmental decision makers and the public about the potential significant environmental effects of proposed activities, identify the ways that environmental damage can be avoided or significantly reduced and prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures. Information on the financial issues associated with the Proposed Project is included in the Cost Benefit Analysis.

Jeff Arey

Comment #	Response
AREJ-1	The Proposed Project would not be a source of urine or feces to the landscape of the City of Hermosa Beach. Sanitary waste generated by the Proposed Project personnel would be handled by portable toilets, a construction trailer restroom, and an office restroom facility during Phases 1, 2, and 3, respectively and would be connected to the sanitary sewer system during Phase 4. Current pollution levels are considered a part of the baseline conditions. Oil spill impacts are discussed in section 4.8, Hydrology and 4.3, Biological Resources.
AREJ-2	The Proposed Project would not have any impact on the number of dogs or the environmental impact of dogs in Hermosa Beach.
AREJ-3	As part of the DEIR baseline studies, noise data was collected from two locations at the corner of Herondo Street and Valley Drive. These noise monitoring locations are shown as T2 and T18 in Figure 4.11-4; measured noise levels are presented in Table 4.11-8. The DEIR assesses the impact of Project-related traffic noise in the context of the existing noise climate; see section 4.11.4.2.

Kian Arnold

Comment #	Response
ARNK-1	Comment that the commenter feels that the Proposed Project would not be beneficial to the City of Hermosa Beach is acknowledged. The evaluation of aesthetics and visual resources is subjective and dependent on many variables including the distance of the object from the viewer. Section 4.1 of the DEIR presents a view shed analysis of the Proposed Project with 20 Key Observation Points (KOPs) in the City. Section 4.1 also provides an analysis of the impacts of the Proposed Project to the character and quality of the existing site and its surroundings. Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
ARNK-2	The Proposed Project does not propose offshore oil rigs or tankers. Air quality impacts are presented in Section 4.2 of the DEIR.
ARNK-3	The DEIR reflects the concern about the noise produced by the Project and section 4.11 includes a detailed analysis of the noise impact of the various Project phases.
ARNK-4	The Proposed Project Applicant is E&B Natural Resources Management Corporation or E&B. DEIR Sections 4.3 Biological Resources, 4.8 Safety, Risk of Upset, and Hazards and 4.10 Land Use and Recreation discuss the potential for, and the impacts from, an oil spill to biological resources and the community of Hermosa Beach. Historical oil spills are also discussed in section 4.8.

Comment #	Response
ARNK-5	Section 4.11 of the DEIR specifically addresses the noise impact of the construction phases of the Project (Phases 1 and 3).
ARNK-6	Section 4.13, Transportation and Traffic, discusses potential traffic impacts to the City of Hermosa Beach from the Proposed Project.
ARNK-7	Comment noted; additional information on the financial issues associated with the Proposed Project is available in the Cost Benefit Analysis.
ARNK-8	Comment that the commenter believes that the Proposed Project would not be beneficial to the City of Hermosa Beach is noted.

Katrina Bacallao

Comment #	Response
BACK-1	This comment suggests that the EIR lacks sufficient information concerning biological resources potentially affected by the Proposed Project. Additional information from the 2011 Los Angeles/Long Beach Area Oil Spill Contingency Plan on sensitive areas, MPAs, western snowy plover and least tern habitats have been included in text and in Figure 4.3-1. This comment also states that the risk of an oil spill is 34%. The risk of an oil spill, as described in Section 4.8, Safety Risk of Upset and Hazards, in the Herondo area, which is closer to the ocean and sensitive biological resources, is estimated to be 14%. In order for flows to reach the marine habitats a spill would have to occur during a substantial rain event. The probability of a spill occurring during a 0.50 inch storm event in the Herondo area would be 0.4%. The EIR states that spills reaching the ocean wouldn't be disastrous, but "A rupture or leak from oil pipelines has the potential to result in a substantial adverse effect on native species and habitats, sensitive species, and biologically important habitats associated with the Pacific Ocean," and has classified this impact as Class I, significant and unavoidable.
BACK-2	This comment requests that additional information be added to the EIR concerning the western snowy plover. Western snowy plover was discussed in the Draft EIR under Section 4.3.1.3, Rare, Endangered, and Special Status Species. Additional information has been added to the list of potential shorebirds in the Sandy Beach community description in Section 4.3.1.1 and information on this species has been included in Figure 4.3-1 which includes major roosting and nesting habitat for this species.
BACK-3	This comment suggests providing additional, recent data on nesting and foraging bird species in the SMB. Additional information from the 2011 Los Angeles/Long Beach Area Oil Spill Contingency Plan on specific sensitive sites which support bird nesting, foraging habitat, roosting sites, and sensitive species habitats has been added to text in Section 4.3.2 and has been included in text and in Figure 4.3-1. Mitigation Measure BIO-2 requires the preparation and agency-approval of an Emergency Response Plan would include requirements to prioritize these sensitive resources in oil spill responses.
BACK-4	This comment suggests providing additional, recent data on cetaceans use of the Bay. The existing information within the EIR on these extremely mobile species is sufficient to reasonably document their presence and potential for impact from an extremely unlikely release into the marine environment. Additional information on the seasonal occurrences of some of the dolphin species has been added to the EIR. The text in Table 4.3-1 concerning blue whale occurrences has been changed to read: "Present in low numbers, but increasing in recent years."
BACK-5	The comment suggests gathering additional information to derive a more

	complete list of avian species potentially inhabiting or foraging in the Greenbelt portion of Project Area. Although the description of potential bird species would certainly increase with all of the historic bird sightings in the area, the EIR is required to take a reasonable approach in determining the level of effort identifying which species are present with any regularity to be affected by the Project. The important point the EIR analysis makes is that the Project area is surrounded by busy roads, industrial and urban settings, and so therefore, this particular area does not support, on any regular basis, a natural diversity or abundant wildlife population. Those species that are present are very flexible and can accommodate for sudden changes to their environment. That is how they are able to survive in the unnatural, heavily impacted, conditions in the first place. Therefore, the populations of species inhabiting the disturbed, marginal habitat surrounding the Project area are not expected to be affected by the Project including the increased noise resulting from the Proposed Project.
BACK-6	The following text has been added to the impact analysis concerning lighting and noise impacts to wildlife species on page 4.3- 25: "Due to the industrial and residential setting in which the Project is located, it is unlikely that there would be any increase in impact level to any sensitive wildlife species, including native bird species, resulting from lighting or noise generated from the development or operational phases of the Project. Those species inhabiting the marginal habitat surrounding the Project area would already be accustomed to the baseline level of noise and lighting which is already abundantly generated from houses, major road ways, and industrial activities in the area. In addition, any permanent lighting for the Project would be designed to be directed downward and shielded in order to avoid obtrusive light spillage beyond the Project Site, reflective glare, and illumination of the nighttime sky."
BACK-7	No response required; comment states that Hermosa Beach has a history of protecting the natural diversity and abundance of marine life in the SMB.

Nanette Barragan

Comment #	Response
BARN-1	The primary objective of the Proposed Project is to develop oil reserves located within the Torrance Oil Field with 30 oil wells and 4 water injection wells. Gas and water are both components of any oil development Project and the DEIR acknowledges and analyzes all three (oil, gas, and water) components of the Proposed Project. The terminology decided upon with City staff is a "Proposed Oil Drilling and Production Project".
BARN-2	The description of the Proposed Project states that it would involve "...the development of an oil and gas facility on the current City Maintenance Yard site." and that it would "…utilize directional drilling of 34 wells (30 oil, 4 for water injection) to access the oil and gas reserves in the tidelands". Hence, the Project development of gas is fully discussed, it is just not in the Project title. Please see response to comment BARN-1.
BARN-3	The word oil was added to all situations where it means an oil spill. Because the term "spills" can also refer to a produced water spill, it was not added in all situations.
BARN-4	Text has been added to page ES-9 to better describe the open space areas. For a more detailed analysis of land use and open space issues, see Section 4.10 of the document.
BARN-5	Text discussing re-drills has been added to the EIR to ensure that the report discusses that the impacts of drilling would also occur during re-drills. See Section 4.11, Noise and Vibration.

Comment #	Response
BARN-6	Text has been added to the executive summary and to section 4.3, Biological Resources, to clarify the geographic range of potential impacts of an oil spill to marine resources.
BARN-7	Safety and Risk of Upset is the terminology used by CEQA for this issue area. See Section 4.8 Safety, Risk of Upset, and Hazards for a detailed analysis of the risk and hazards of the Proposed Project including information on a “blowout”. In addition, text has been changed in the FEIR to refer to blowouts.
BARN-8	Text has been modified in the FEIR to clearly state that the environmentally superior Project is the no Project alternative under the executive summary Environmentally Superior Alternative sub heading. As required by the California Environmental Quality Act (CEQA), the DEIR must include alternatives to the Proposed Project. If the EIR selects the no Project alternative as the environmentally superior alternative, then CEQA Guidelines Section 15126.6(e)(2) requires that the next best alternative shall be selected as the environmentally superior alternative.
BARN-9	Text has been modified to include a yes in the aesthetics column for table ES.2 (note this is also modified in section 6). The re-drilling is included in the column of construction/drilling/re-drilling and includes a Yes for the significant and unavoidable impacts. Re-drilling would occur for up to an average of one month per year, over 30+ years, which would be closer to 3 years.
BARN-10	Workover rigs vary depending on the stage and activity ongoing. If production tubing is being handled, the workover rig would be substantially thicker. The simulations provided in the DEIR also utilized a white painted rig that did not sufficiently account for shading and light effects, thereby causing it to look very "light". The visual simulations having the most "lightness" have been re-done in the FEIR to show a workover rig at its "thickest" arrangement. Tanks would generally not be visible as, during Phase 2, they would be behind a 32 foot sound-wall, Phase 4 drilling they would be behind a 32-foot soundwall and Phase 4 after drilling, they would be behind a 16 foot permanent (or, mitigated, 35 foot permanent) wall. As the tanks would be 16' high, they generally would not be visible unless the observer is above the facility. Some views from private residences would allow for a view like this, but these locations would be limited.
BARN-11	Should the Proposed Project be approved, the Project would be limited by permit condition to a single workover rig at any given time. There is insufficient area available at the Proposed Project site to locate two workover rigs. Text has been added to the Project Description indicating that only one workover rig would be onsite at a time.
BARN-12	Text has been modified to include the pollutant acronym in the text heading. The first column of Table 4.2-2 lists the air quality pollutant by name (ozone, nitrogen dioxide, particulate matter, etc.).
BARN-13	As required by the California Environmental Quality Act (CEQA), the DEIR must include information on the environmental setting of the Project Site. Air quality impact analysis is a complex subject requiring a substantial amount of background information and data to adequately describe the environmental setting. The EIR is organized so that each issue area has an environmental setting section followed by the impacts section. The Executive Summary provides a summary of the impacts. Air quality impacts of the Proposed Project are clearly stated and identified in the Project impact table boxes.
BARN-14	Text has been added to the FEIR to include the threshold value that is exceeded within the text discussion.
BARN-15	Air quality is inherently complex because there are so many different factors to include: 6 different pollutants, 5 different phases of the Project, onsite, offsite, regional thresholds and localized thresholds. The tables summarize all of these factors and compare them to the SCAQMD thresholds. The tables provide a

Comment #	Response
	summary of the conclusions, in the bottom rows, about whether the emissions meet the thresholds or not.
BARN-16	It is important to note that the emissions of PM and VOC would exceed the significance thresholds "before mitigation". Text explaining this has been added to the FEIR. After mitigation measures have been applied, the emissions would be less than the thresholds (i.e., a less-than-significant impact). H2S levels could range up to 100ppm in the produced gas within the piping. The ERPG-3 planning guideline states that this level could produce fatalities if persons were exposed for 60 minutes. However, 100 ppm within the piping does not equate to 100 ppm in the atmosphere at a location where employees or the public could inhale it, and if it were released to the atmosphere it would disperse within a few feet to a level below the ERPG-2 or 3 and would not remain below that level due to dispersion in the air. Text has been added to the FEIR to clarify these points.
BARN-17	Text has been added to the FEIR indicating that odors would be limited to the immediate vicinity (500-1000 feet) of the Project Site except under an accident scenario. The health risk assessment concluded that health risks would be less than significant for normal operations and that the OSHA permissible level for H2S (20 ppm for 8 hours) would not be exceeded. However, accidental or unplanned minor releases could cause exceedances of the OEHHA REL (reference exposure levels) in the immediate vicinity of the Project Site. Air quality impact AQ-5 acknowledges a Class I impact for the potential of odors and recommends six mitigation measures to reduce those potential impacts.
BARN-18	Additional text has been added to section 4.2 about how the credits system works. GHG emissions generated by the Project, including electricity, are quantified in the EIR. The carbon-neutral program within the City would have to provide accounting for the credits to ensure that they are included in the calculations for carbon-neutrality. Note that the GHG emissions generated from the exploration, production and refining of crude oil to produce gasoline would be produced whether the gasoline is produced from crude oil obtained within Hermosa Beach or from other locations. The City's GHG neutrality calculations do not appear to take into account the emissions associated with crude oil production and refining to produce the gasoline used by the City's residents. Depending on the methodology the City uses to calculate GHG emissions, the City's carbon-neutral calculations may need to be revised to incorporate these additional lifecycle complexities. In addition, all electricity produced within California is a part of the CARB Cap-and-trade system, which effectively ensures that there are no increases in GHG with increased electrical usage. The City's carbon-neutral calculations would need to be revised to incorporate these additional lifecycle complexities. Air quality impact AQ-6 and the associated mitigation measure describe the requirements for the GHG emissions above the 10,000 MTCO2e per year threshold. All GHG credits would be verified by the regulatory agencies listed in the mitigation measure.
BARN-19	Text has been added in response to comment BARN-18 to the FEIR discussing how the production and refining of gasoline might be accounted for in the calculation of carbon-neutrality. The DEIR used the 10,000 MTCO2e per year threshold for GHG emissions as defined by the SCAQMD.
BARN-20	The plot plans provided by the Applicant do not indicate that stacking equipment is proposed. Some equipment may have to stand on elevated platforms in order to stay elevated above the crude oil containment berm. Current codes and standards would require that these platforms, or any stacked equipment if proposed as part of the final design, would have to be seismically engineered to maintain integrity in an earthquake. Mitigation measures in section 4.8 require audits by seismic engineers to ensure that the facility is as-built to codes and standards.

Comment #	Response
BARN-21	The DEIR GHG calculations have been updated to include the maximum number of re-drills discussed in the EIR (30 days per year average). This does not change the classification of any impacts.
BARN-22	In environmental and health risk assessments, "receptors" are people or species that may be exposed to an environmental factor. Text in the FEIR section 4.8 has been modified to refer to humans instead of public receptors. Employees and contractors of the Applicant are not included in the risk assessments.
BARN-23	The crude oil pipeline would pass through Redondo and Torrance. Spills of crude oil would be responded to by the respective fire departments with mutual aid from the County of Los Angeles Fire Department. Text to this effect has been added to section 4.6, Fire Protection and Emergency Reponses. Mitigation measure FP-1f has been modified to include Redondo Beach in the automatic mutual aide agreement for hazmat with Torrance. Because the inspection requirements are low for the pipeline, there would not be significant impacts on agencies associated with the pipeline inspections.
BARN-24	The City of Hermosa Beach mutual aid agreement with the County of Los Angeles Fire Department, City of Torrance and City of El Segundo might be revised if the Proposed Project is approved. Costs of the response are addressed in the mitigation measures which require additional hazmat capabilities, either through a revised mutual aide agreement with Torrance (including Redondo Beach) or the development of hazmat capabilities within Hermosa/Redondo.
BARN-25	Section 4.6.1.1 indicates that "The City of Hermosa Beach also has mutual aide agreements with the County of Los Angeles Fire Department". The City is not part of the Los Angeles County area, however, but could be called upon as part of the mutual aid agreements. The City of Hermosa Beach is a party to a mutual aid agreement with the County of Los Angeles Fire Department, City of Torrance and City of El Segundo. As such, Hermosa Beach would have the potential for assistance from neighboring Fire Departments for a hazardous materials incident.
BARN-26	Table 4.6-1 presents the existing baseline response times for the applicable neighboring Fire Departments. The impacts are discussed under impact FP.1, which states that "For the capabilities of providing a response, the distance to an LACFD Hazmat team is relatively long at 24 minutes, the mutual aide agreement with Torrance does not include their HAZMAT unit and the HBFD and the Torrance Fire Department do not have an automatic aide agreement." Therefore, this would be a significant impact and mitigation measure FP-1f required the development of a local hazmat unit, or establish mutual aid with Torrance (who has a hazmat unit). If units are busy at the time of an incident, they would utilize LACFD hazmat unit.
BARN-27	The EIR is structured so that the baseline conditions are described, then the impacts of the Project are discussed in the subsequent sections. The baseline conditions are such that Hermosa Beach does not have ready access to a hazardous materials unit. Under the impacts section under the discussion below the impact FP.1 box, impacts are clearly described. This is determined to be a significant impact before mitigation. The mitigation, FP-1f, would be to develop a hazmat unit or establish an automatic mutual aide agreement with Torrance. In addition, section 4.9, Hydrology, mitigation HWQ-2, requires that the Applicant employees be trained in first response spill containment.
BARN-28	Mitigation measure FP-1c requires the Applicant to fund one Full Time Equivalent (FTE) fire department position. It does not require funding of new equipment or infrastructure. This is because the Fire Departments in the area appear to satisfy the need for equipment associated with the LACFD matrix for responding to an oil field fire. This is discussed under the response capabilities also under impact FP.1.

Comment #	Response
BARN-29	CEQA calls for environmental review of discretionary projects at the earliest meaningful stage, to serve its purposes of public participation and informed decision-making. The detailed design of the facility has not been conducted at this time. However, there is sufficient information available that the feasibility of achieving equipment spacing that satisfies the codes, through satisfaction of the intent of the codes and standards, can be determined. The Project would be required to comply with the codes and standards. Under CEQA, this is not deferral of mitigation as the performance criteria, the specific codes and standards, are well established. Measures, such as fire walls and vessel insulation, are well established practices in industry and could be applied at the Project Site. Unless the codes and standards can be satisfied, then the Project would not be allowed to move forward through the permit process. This is like any building Project that comes forward, and is required to pass codes and standards in the detailed drawings and permit stage. CEQA case law states: "for the kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process, the agency can commit itself to eventually devising [mitigation] measures that will satisfy specific performance criteria articulated at the time of Project approval," and that " a condition requiring compliance with regulations is a common and reasonable mitigation measure" (Oakland Heritage Alliance v. City of Oakland (2011) 195 Cal.App.4th 884, 906)
BARN-30	The third bullet under the significance criteria section 4.6.3 discusses the equipment spacing standards that could produce significant impacts if not complied with. Text has been added to section 4.6.2.3 to indicate why equipment spacing standards exist.
BARN-31	The 1993 CUP is a subset of the requirements that the Proposed Project would be subject to. Most of the requirements are general in nature, related to warning signs, water flows to meet fire department regulations, and not specific in nature. It is not intended to supplant any current code or standard and the facility would be required to comply with current codes and standards and comply with regulations, such as those promulgated by the SCAQMD, as well as all mitigation measures adopted by the City. Hence, the 1993 CUP is not the Proposed Project, but is part of the Proposed Project..
BARN-32	See Mr. Rick Pruetz comments and responses below.
BARN-33	CEQA requires not that all plans be completed and finalized, but that the feasibility of the mitigation and the plan can be determined and that performance criteria be established. Emergency response plans to oil and gas exploration projects are common in Los Angeles, other fire departments have hazmat units capable of responding to an oil well fire or an oil spill, and these capabilities can be brought to this Project through increased training or expanded mutual air agreements. The feasibility of developing a detailed emergency response plan is not in doubt and it is therefore acceptable under CEQA to make these conclusions. With regard to odor, it cannot be definitively determined that the facility would not produce nuisance odor events due to the very close proximity of the facility to residences and the public. Therefore, the impact due to potential odors would be significant and unavoidable.
BARN-34	See Mr. Rick Pruetz comments and responses below.

Brooke Bolin

Comment #	Response
BOLB-1	Comment that the commenter believes that the Proposed Project would not be beneficial to the City of Hermosa Beach is noted. Section 4.5 of the DEIR includes discussion of alternative energy sources.
BOLB-2	The DEIR analyzes the potential environmental impacts of the Proposed Project. Section 4.2 presents air quality issues, including emissions of toxic materials and GHG, and sections 4.9 and 4.14 discuss potential impacts to water resources and the ocean.
BOLB-3	DEIR Sections 4.3 Biological Resources, 4.8 Safety, Risk of Upset, and Hazards and 4.10 Land Use and Recreation discuss the potential for, and the impacts from, an oil spill to biological resources and the community of Hermosa Beach. The EIR preparers agree that oil spills could impact wildlife. Impact BIO-2 states: "A rupture or leak from oil Pipelines has the potential to result in a substantial adverse effect on native species and habitats, sensitive species, and biologically important habitats associated with the Pacific Ocean," and has classified this impact as Class I, significant and unavoidable.
BOLB-4	Section 4.1 of the DEIR presents a view shed analysis of the Proposed Project with 20 Key Observation Points (KOPs) in the City. Section 4.1 also provides an analysis of the impacts of the Proposed Project to the character and quality of the existing site and its surroundings. Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism, as well as the impacts on recreational resources.
BOLB-5	Additional information on the financial issues associated with the Proposed Project is available in the Cost Benefit Analysis.
BOLB-6	Comment that the commenter believes that the Proposed Project would not be beneficial to the City of Hermosa Beach is noted.

Austin Bowkus

Comment #	Response
BOWA-1	Comment that the commenter believes that the Proposed Project would not be beneficial to the City of Hermosa Beach is noted. The DEIR, prepared pursuant to the California Environmental Quality Act (CEQA), is intended to inform governmental decision makers and the public about the potential significant environmental effects of proposed activities, identify the ways that environmental damage can be avoided or significantly reduced and prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures.
BOWA-2	Section 4.1 of the DEIR presents a view shed analysis of the Proposed Project with 20 Key Observation Points (KOPs) in the City. Section 4.1 also provides an analysis of the impacts of the Proposed Project to the character and quality of the existing site and its surroundings. Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism. Note that the Proposed Project does not include 30 drill rigs, a single drill rig would be used to drill up to 30 oil and 4 water injection disposal wells.
BOWA-3	Section 12.0 of the Cost Benefit Analysis includes discussion on the impact of the Proposed Project on the private property values in Hermosa Beach. Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach

	atmosphere and promote tourism.
BOWA-4	Additional information on the financial issues associated with the Proposed Project is available in the Cost Benefit Analysis.
BOWA-5	Comment that the commenter believes that the Proposed Project would not be beneficial to the City of Hermosa Beach is noted. Section 4.5 of the DEIR includes a discussion of alternative energy sources.
BOWA-6	Additional information on the financial issues associated with the Proposed Project is available in the Cost Benefit Analysis.
BOWA-7	Thank you for the comments on the Project.

Jeffrey Bronchick

Comment #	Response
BROJ-1	Additional information on the financial issues associated with the Proposed Project is available in the Cost Benefit Analysis.
BROJ-2	The Project is required to go before the voters of Hermosa Beach pursuant to the terms of the Settlement Agreement.
BROJ-3	Additional information on the financial issues associated with the Proposed Project is available in the Cost Benefit Analysis.
BROJ-4	Additional information on the financial issues associated with the Proposed Project is available in the Cost Benefit Analysis.
BROJ-5	Additional information on the financial impact of revenue to Hermosa Beach associated with the Proposed Project is available in Sections 7.0 and 8.0 of the Cost Benefit Analysis, including information on the funds that would be directed towards the school district.
BROJ-6	As described in the DEIR, due to the nature and size of an oil well drilling rig, the initial drilling phase would have significantly more environmental impacts than the operational phases of the Proposed Project.
BROJ-7	The DEIR presents the potential impacts and mitigation measures to reduce the potential impacts from the Proposed Project. Section 8.0, Summary of Mitigation Measures and Mitigation Monitoring Plan, details the environmental monitoring programs recommended for the Proposed Project.
BROJ-8	Additional information on the financial issues associated with the Proposed Project is available in the Cost Benefit Analysis.

Kate Brunskill

Comment #	Response
BRUK-1	Section 4.2 of the DEIR, Air Quality and GHGs, discusses potential health impacts from the emissions generated by the Proposed Project. Section 4.8, Safety, Risk of Upset, and Hazards, analyzes safety issues with the Proposed Project. Issues relating to earthquakes are presented in Section 4.7, Geological Resources.
BRUK-2	Potential impacts from odors and the emissions of the Proposed Project are discussed in Section 4.2 of the DEIR, Air Quality and GHGs. Note that air quality impact AQ.5 identifies potential odors as a Class I impact and requires mitigation measures including an Odor Minimization Plan to reduce the potential of odors.
BRUK-3	See Section 4.8, Safety, Risk of Upset, and Hazards, for a discussion on the safety issues with the Proposed Project. Potential impacts from an oil spill to biological resources and the community of Hermosa Beach are detailed in Sections 4.3 Biological Resources, 4.8 Safety, Risk of Upset, and Hazards and 4.10 Land Use and Recreation.
BRUK-4	Section 4.7, Geological Resources-Soils discussed the Proposed Project and the

	potential for earthquakes. Water and oil extracted during the process would be replaced with the produced water and reclaimed water.
BRUK-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
BRUK-6	Health hazards are discussed in section 4.2, Air Quality and section 4.8, Safety and Risk. Section 4.1 addresses aesthetics and section 4.13 addresses traffic issues.

Brittany Burger

Comment #	Response
BURB-1	Information on the financial issues associated with the Proposed Project are detailed in the Cost Benefit Analysis. Alternative energy is discussed in section 4.5, Energy and Mineral Resources.
BURB-2	The Applicant is not proposing to drill in multiple locations in Hermosa Beach; the Proposed Project site is a single location at 555 6th Street. The Proposed Project would be subject to all applicable Federal laws. The exemption in the Federal Energy Policy Safe Drinking Water Act (SDWA) of 2005, often known as the Halliburton Loophole, applies to the underground injection of natural gas for purposes of storage and the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities. The Proposed Project does not involve the underground storage of natural gas or hydraulic fracturing technology.
BURB-3	Section 4.5 Energy and Mineral Resources, discusses energy conservation and alternative energy sources. Note that most hydrogen currently produced comes from natural gas.
BURB-4	Oil spills are addressed in section 4.8, Safety and Risk, as well as 4.2, Biological Resources.
BURB-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis. Thank you for your comments.

Megan Chelliah

Comment #	Response
CHEM-1	Section 4.7, Geological Resources-Soils discussed the Proposed Project and the potential for earthquakes and section 4.13 addresses traffic issues.
CHEM-2	Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts. Impact TR-1 address potential impacts to pedestrians and mitigation measures to reduce those impacts.
CHEM-3	The Proposed Project would have an oil rig operating 24 hours a day, seven days a week, for only the initial 2.5 years. See Section 2.0 Project Description for the Project schedule.
CHEM-4	Section 4.7, Geological Resources-Soils discussed the Proposed Project and the potential for earthquakes.
CHEM-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
CHEM-6	Thank you for your comments.

Peggy Cohen

Comment #	Response
COHP-1	The DEIR acknowledges and analyzes the impacts of the water use of the

	Proposed Project; see Section 4.14, Water Resources. Most of the water use by the Project would be reclaimed water, which would not affect potable water pressures or fire fighting capabilities.

R. Douglas Collins

Comment #	Response
COLD-1	There is an extensive amount of information to review. You comments are appreciated.
COLD-2	The lack of setbacks is one of the principal reasons that the EIR identified a number of significant and unavoidable impacts, including risk and odor. Note that the wells would be located as close as 33 feet from the closest business back wall.
COLD-3	Section 4.8, Safety and Risk, assesses the risks of the Proposed Project against specified thresholds.
COLD-4	Section 4.8, Safety and Risk, included the probability of an earthquake producing ground acceleration above 0.5g (for atmospheric tank damage) and above 1.5g (for damage to pipelines and equipment) in the risk assessment.
COLD-5	Well fires are the principal drivers to the risk assessment presented in section 4.8, Safety and Risk.
COLD-6	Some human error failures are included in the risk assessment in section 4.8. Others are included qualitatively in the air quality section, as events that could lead to odors.
COLD-7	Text has been added to the FEIR to clarify that the environmentally superior alternative is the no Project alternative. CEQA requires the selection of an additional alternative if the no Project alternative is selected.
COLD-8	Text has been added to the FEIR to clarify that the environmentally superior alternative is the no Project alternative. CEQA requires the selection of an additional alternative if the no Project alternative is selected.
COLD-9	Section 4.10 of the DEIR provides a discussion of the land use regulations and policies for pipelines. Pipelines are an allowed use in all zone districts and the Proposed Project pipelines would be routed through existing pipeline right of ways consistent with existing pipelines. Pipeline construction is a short term and temporary impact and would not have a long term impact on Hermosa Beach owned parcels or the Greenbelt. The Applicant has indicated that they would abide by the 1993 CUP, which prohibits the use of the Greenbelt. The Applicant has not proposed activities on any other City property, and this is therefore not assessed in the EIR as per CEQA requirements to assess the Proposed Project.

Michael Collins

Comment #	Response
COLM-1	Pursuant to CEQA Guidelines Sections 15050, 15051 and 15367, the City is the lead agency for this EIR because it is the agency with general governmental powers over the Project and will have the principal responsibility for Project permitting if it is first approved by the voters . This is a standard practice that the jurisdiction that is likely to sustain the majority of the impacts, which is typically where the Project is located, also be the jurisdiction that acts as the lead agency under CEQA. In this particular case, there is less potential conflict because, rather than having elected officials make the final decision on the fate of the Project, the voters will be the ultimate decision-makers.
COLM-2	The Project will be required to have a Storm Water Pollution Prevention Plan (SWPPP) for construction phases and the Project design is such that that no stormwater or water discharges from the site would enter the storm drain system during any phase of the Project. Therefore, no lead would enter the storm drain

	system.
COLM-3	If contamination is encountered at any Project construction location (street improvements, Phase 1 or Phase 3 earth moving, temporary or permanent City Maintenance Yard activities), it would be handled through the existing regulatory requirements that are applicable to any construction Project that involves earth moving and trenching. Best Management Practices would be employed and required under the City's permit system. Please note that utility poles will not be undergrounded. The electric transmission cables will be undergrounded.
COLM-4	The DEIR indicates that the water used for the Project would be reclaimed water. The water will not need to be cleaned and the Applicant has received a will serve letter from the purveyor stating that the water they need will be available. Some potable water would be used for construction dust management, but water used for drilling would be reclaimed water. Reclaimed water is a preferred source during drought conditions.
COLM-5	Page 2-13 of the DEIR discusses the fact that some existing overhead power lines would be placed underground as part of the Proposed Project. Undergrounding of power cables generally decreases the impacts of EMF because the soil acts as resistance/barrier to the EMF fields. There is no evidence to support adverse effects as a result of the operation of the onsite generator.
COLM-6	The limit of 18 vehicles per day is applicable to heavy duty trucks only. "Day" refers to a 24-hour period. Autos and pickup trucks and light duty trucks would be allowed a higher limit. Therefore, the total of 43 per day is a combination of the heavy trucks, pickup trucks, light duty trucks and autos. The traffic analysis was conducted according to industry guidelines to determine levels of service impacts of the Project. Traffic safety, which is not addressed in the Caltrans guidelines, was also assessed in the DEIR and a number of mitigation measures were proposed to ensure the safety of pedestrians along Valley Drive. In addition, an alternate route, using Valley Drive and Herondo Street only instead of Pier Avenue, was added.
COLM-7	Emergencies are defined in the CUP as "a threat to the health and safety of persons in the surrounding area to the drill site" (section 14) including a) conditions which could lead to a potential spill or well blowout; b) injuries to personnel at the Drill Site; and c) conditions which could reduce the stability and safety of the rig and production equipment.
COLM-8	The design of the Project would be required to comply with existing codes and standards. The requirements for spacing of crude oil tanks would comply with State of California Safety Orders, which require a spacing distance of approximately 7 feet between the tank and the "Nearest Side of Any Public Way".
COLM-9	Text has been added to section 4.6, Fire Protection and Emergency Response, to discuss the potential for overflow during a fire event. The site would have 500,000 gallons of onsite storage in the bermed area, which could support up to 3 hours of fire fighting capacity. Additional measures, such as the installation of flapper valves on area storm drains, have been added. Please see mitigation measure FP-1d which addresses emergency response requirements.
COLM-10	Section 4.8, Safety and Risk, includes the scenario where the crude oil tanks fail and produce a fire. Exact staging of emergency responders would be developed as part of the emergency response plan in coordination with the fire department during the detailed permitting phase.
COLM-11	Section 4.2, Air Quality, addresses the health impacts of the ground flare. During Phase 4, the flare would only be used occasionally when the gas processing plant is not working. It would be limited in its allowed use. During Phase 2, the flare would operate continuously. It would not combust crude oil, but would combust the gasses produced during oil production. The flare could

	generate some noise impacts, and this has been added to the Noise section 4.11 in the FEIR.
COLM-12	The use of a fully enclosed building was examined as part of the mitigation analysis. However, using a fully enclosed building to house gas processing or a sunken pit would be infeasible because a release of gas would be very harmful to the persons within the building/pit, and would substantially increase the likelihood that the released gas would explode, impacting nearby residences and businesses. Generally, gas processing equipment is located outside to reduce the impacts of any accidents.

Don Croley

Comment #	Response
CROD-1	The DEIR, prepared pursuant to the California Environmental Quality Act (CEQA), is intended to inform governmental decision makers and the public about the potential significant environmental effects of proposed activities, identify the ways that environmental damage can be avoided or significantly reduced and prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures. The Executive Summary can be referred to for less-detailed overview.
CROD-2	The hydraulic fracturing, or fracking, well completion technique is not part of the Proposed Project. Page 2-20 of the DEIR indicates that the Applicant has not proposed any "fracking".

Sophie Dafesh

Comment #	Response
DAFS-1	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts from the Proposed Project.
DAFS-2	Section 4.2 addresses the air quality impacts from the Proposed Project.
DAFS-3	Section 4.7, Geological Resources-Soils discussed the Proposed Project and the potential for earthquakes.
DAFS-4	Sections 4.8, Safety, Upset and Risk of Hazards and 4.6, Fire Protection and Emergency Response, address the potential for fire risk from the Proposed Project.
DAFS-5	The noise impact analysis presented in the DEIR emphasizes noise emissions from the Project Site at night. For example, the significance thresholds established for the 24/7 drilling activity and operations during Phases 2 and 4 is based on the quietest nighttime hour recorded over a seven-day period.
DAFS-6	Section 4.2 addresses the air quality impacts including greenhouse gas emissions from the Proposed Project.
DAFS-7	Potential impacts from an oil spill to biological resources and the community of Hermosa Beach are detailed in Sections 4.3 Biological Resources, 4.8 Safety, Risk of Upset, and Hazards and 4.10 Land Use and Recreation. The EIR preparers agree with the comment that oil spills pose a threat to the environment. Impact BIO-2 states: “A rupture or leak from oil Pipelines has the potential to result in a substantial adverse effect on native species and habitats, sensitive species, and biologically important habitats associated with the Pacific Ocean,” and has classified this impact as Class I, significant and unavoidable.
DAFS-8	Section 4.10 of the DEIR provides an evaluation of the Proposed Project consistency with the City’s Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism. Both Sections 4.8 and 4.10 of the DEIR acknowledge the fact that the potential of an oil spill is a Class I impact, significant and unavoidable.

DAFS-9	Section 12.0 of the Cost Benefit Analysis provides a discussion of the potential impact of the Proposed Project to the property values of Hermosa Beach.
DAFS-10	Section 4.7, Geological Resources-Soils discussed the Proposed Project and the potential for earthquakes and other geotechnical issues. Impact GEO-4 addresses the potential for subsidence from oil and gas withdrawal and mitigation measures GEO-4a and GEO-4b recommend measures to reduce the potential of subsidence to a less than significant level.
DAFS-11	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

Jamie Danis

Comment #	Response
DANJ-1	Thank you for submitting comments.
DANJ-2	The Project would be subject to all applicable local, County, State and Federal laws and regulations. The exemption in the Federal Energy Policy Safe Drinking Water Act (SDWA) Act of 2005, often known as the Halliburton Loophole, applies to the underground injection of natural gas for purposes of storage and the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities. The Proposed Project does not involve the underground storage of natural gas or hydraulic fracturing technology.
DANJ-3	Section 4.7, Geological Resources-Soils discussed the Proposed Project and the potential for earthquakes.
DANJ-4	Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts. Impact TR-1 address potential impacts to pedestrians and mitigation measures to reduce those impacts.
DANJ-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
DANJ-6	Thank you for submitting comments.

Joshua Darbee

Comment #	Response
DARJ-1	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
DARJ-2	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project, including section 4.2, Air Quality and GHG, addresses toxic emissions, and section 4.11, addresses Noise and noise thresholds and impacts.
DARJ-3	Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism. Section 4.3 addresses potential impacts to biological resources.
DARJ-4	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
DARJ-5	Thank you for submitting comments.

Susan Darcy

Comment #	Response
DARS-1	Numerous text modifications have been made throughout the EIR to ensure that re-drilling impacts are discussed along with drilling impacts. The summary tables shown in the executive summary include re-drills along with drilling.

Chuck & Monica Decker

Comment #	Response
DECC-1	One of the general concepts of the California Environmental Quality Act (CEQA) is to inform the public about the potential significant environmental effects of a Proposed Project. No distinction is made during the response to comment on the location, place of residence or voting status of the commenters, although the mailing address is listed.

Dominic Di Rado

Comment #	Response
DIRD-1	Thank you for submitting comments.
DIRD-2	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts from the Proposed Project, including oil spills (section 4.8) and biological impacts of an oil spill (section 4.2).
DIRD-3	Section 4.2 addresses the air quality impacts from the Proposed Project.
DIRD-4	Aesthetic impacts are discussed in section 4.1.
DIRD-5	The DEIR addresses the noise produced by the Project and section 4.11 includes a detailed analysis of the noise impact of the various Project phases.
DIRD-6	Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts. Impact TR-1 address potential impacts to pedestrians and mitigation measures to reduce those impacts.
DIRD-7	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

John Doe

Comment #	Response
DOEJ-1	Comment noted that the Proposed Project would have environmental impacts. Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts from the Proposed Project, including 4.11 Noise, section 4.8, Safety and Risk (and oil spills), section 4.3, Biological Resources and impacts of oil spills, section 4.13, Traffic.

Zachary Dushenko

Comment #	Response
DUSZ-1	Section 4.8 addresses Safety and Risk issues.
DUSZ-2	Section 4.5 of the DEIR includes discussion of alternative energy sources.
DUSZ-3	Potential impacts from an oil spill to biological resources and the community of Hermosa Beach are detailed in Sections 4.3 Biological Resources, 4.8 Safety, Risk of Upset, and Hazards and 4.10 Land Use and Recreation. The EIR preparers agree with the comment that oil spills pose a threat to the marine environment. Impact BIO-2 states: "A rupture or leak from oil Pipelines has the potential to result in a substantial adverse effect on native species and habitats, sensitive species, and biologically important habitats associated with the Pacific Ocean," and has classified this impact as Class I, significant and unavoidable.
DUSZ-4	Section 4.7, Geological Resources-Soils discussed the Proposed Project and the potential for earthquakes. The Applicant is proposing injecting water to ensure

Comment #	Response
	that the "hole" is filled up.
DUSZ-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
DUSZ-6	Thank you for submitting comments.

Layne Eichenlaub

Comment #	Response
EICL-1	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
EICL-2	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
EICL-3	Section 4.8, Safety and Risk, and section 4.3, Biological resources, address the risks of oil spills.
EICL-4	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
EICL-5	The drill rig is located on the surface not underground, but the wells are all consolidated in a single area as opposed to being spread out in a community, thereby reducing the overall risk and footprint of the Project.
EICL-6	Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
EICL-7	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

John Faulstich

Comment #	Response
FAUJ-1	Additional mitigation has been added to the pipeline, including specifications for pipe and pipe coatings, which would reduce the failure rate to the lowest achievable in industry.
FAUJ-2	Double-walled pipe is not recommended by the California State Fire Marshal, who oversees crude oil pipelines, as it introduces long-term difficulties in maintenance and pipeline integrity. Utilizing the latest technologies in pipe construction and coatings provides for a substantial reduction in failure rates.
FAUJ-3	Signage is required by regulations. The Applicant has proposed installing a cement barrier and warning tape above the pipeline to prevent third-party damage.
FAUJ-4	Hydro testing is a regulatory requirement by the CSFM every 5 years, unless there have been spill issues. Frequent hydro testing can actually increase failure rates as they produce stress in the pipeline. Smart pigging is a less impactful method of testing pipeline integrity. Smart pigging is required by USDOT regulations every 4 years also, unless spills have occurred. More frequent smart pigging would be necessary if the pipeline were exhibiting corrosion issues.
FAUJ-5	GHG emissions do not present a direct health impact, as criteria pollutants (producing ozone) or toxic emissions can be. However, CEQA requires that GHG emissions be quantified and a significance level determined.
FAUJ-6	Section 4.8, Safety and Risk, addresses the impacts of blowouts and H2S releases.
FAUJ-7	Section 4.8, Safety and Risk, includes a discussion of databases of blowouts, for example, where the number of blowouts occurring industry-wide in an area is discussed. The EIR has a number of impacts, such as blowouts and oil spills, that are predicted to occur at a low frequency.

Mike Flaherty

Comment #	Response
FLAM-1	The imposition of financial penalties would be determined during the final permit stages. At this point in the Project, the financial, or other, penalties associated with not meeting the timeframes described in the CUP, for example, have not been determined.
FLAM-2	Section 1(b) of the lease establishes a 35 year term. The first two years of the term are referred to as the Primary Term. Section 30 of the lease is a force majeure clause that tolls the running of the clock on the lease for any event outside the control of the lessee that delays or prevents implementation of the Project. The Settlement Agreement contains these references to the duration of the lease. Section 8.2(d) – The force majeure provisions in paragraph 30 of the lease apply and have applied during the pendency of the litigation. Section 12.3 – 345 days remain of the Primary Term, and 33 years remain on the balance of the term. Hence, the amount of time remaining on the lease is 33 years and roughly twelve and a half months. The "clock" remains suspended until the date that drilling permits are issued by the City (assuming the measure passes), at which time the clock will begin to run on the remaining time on the lease.
FLAM-3	The Applicant is required to pay for all aspects of the Proposed Project and mitigation, including installation of fire hydrants and extension of the 8" water main. The use of reclaimed water for firefighting is uncertain at this time and the DEIR authors are not aware of any situations where reclaimed water has been used for fire water. The use of reclaimed water for injection into an oil reservoir would be approved by DOGGR and the RWQCB. The DEIR authors are not aware of any specific approvals issued to date. The DEIR is not aware of any other drilling projects where reclaimed water has been used, but production water has been used for injection.
FLAM-4	The emergency response plans would be prepared during the permit stages that would occur after the conclusion of the vote. Emergency response plans to oil and gas exploration projects are common in Los Angeles, other fire departments in the vicinity of the Project site have hazmat units capable of responding to an oil well fire or an oil spill, and these capabilities can be brought to this Project through increased training or expanded mutual air agreements. The feasibility of developing a detailed emergency response plan is not in doubt.
FLAM-5	Current drainage arrangements would be modified by the Proposed Project to retain all drainage onsite and direct drainage to the water injection wells.
FLAM-6	A 100 year storm event is classified by the LA County Public Works Hydrology manual isohyetal maps as 5.72 inches in a 24 hour period (the 50 year event times 1.122).
FLAM-7	Preliminary calculations of the capacity of the bermed area based on the plot plans provided by the Applicant indicate that the bermed area has a capacity (not including the crude tanks and the clarifiers) of 541,000 gallons. This would be sufficient to handle a 2,900 bbl crude spill plus 12 inches of rain falling on the 1.3 acre site. The Applicant has not provided a profile view of the facility, but has provided a plot plan showing the elevations.
FLAM-8	The Proposed Project requires specific amendments to the City's General Plan, Municipal Code, and Local Coastal Plan, see Section 4.10 of the DEIR.

Comment #	Response
FLAM-9	The Applicant has not proposed crossing guards. Mitigation measures in section 4.13, Traffic, include a crossing guard, paid for by the Applicant, at the corner of 6th and Valley in the afternoons. Trucks would not be allowed to the site before 9 a.m., after school has already begun. According to Figure 4.13-4 (page 4.13-12) and reviewing the area, there are crosswalks at Valley and 8th street, but no crossing guards.
FLAM-10	One-way south of 8th would not satisfy the need to increase separation between trucks along Valley Drive and pedestrians along Clark Field and City Hall area.
FLAM-11	Figures 2.21 and 2.22 show an entry/exit ramp from Valley Drive into the upper level of the proposed Maintenance Facility. This could cause traffic safety concerns related to trucks entering/exiting Valley Drive because there could be visibility issues.
FLAM-12	Please see response to comment FLAM-5
FLAM-13	Portable toilets are regularly used for all construction projects and are not considered to be emitting objectionable odors. In addition, the use of portable toilets will be temporary in nature
FLAM-14	Comment and information provided noted.
FLAM-15	The Applicant has provided plot plans showing elevations, so the capacity of the bermed areas can be estimated and the feasibility of retaining onsite water can be assessed. Detailed plans would be submitted as part of the permit phase with building and safety and these would provide more specific details on the retention capacity. Additional mitigation has been added to Fire Protection to address flapper valves and the scenario of fire fighting water overflow.
FLAM-16	The Parking Plan submitted by the Applicant does not indicate that the private parking area to the southwest of the Project Site would be used for parking. This is a mistake on Figure 2.6 and has been corrected in the FEIR.
FLAM-17	The review of the Fire Department equipment indicates that the Fire Department, along with the mutual aid agreements, would have sufficient equipment to respond. HAZMAT equipment may be required, however, if a HAZMAT unit is developed. The details of the Fire Marshall/FTE position have not been developed at this time.
FLAM-18	The site is 1.3 acres. References to 1.6 acres have been corrected.
FLAM-19	The Entrix 1995 studies conducted soil testing in the south western portion of the site. The soil borings are identified as B1, B2, B6, B7, B8, B9 and ASE5 on the Entrix report included as an appendix.
FLAM-20	This EIR provides environmental review for the temporary City Maintenance Yard as well as the permanent City Maintenance Yard, which are part of the Project Description.
FLAM-21	Section 4.13, Traffic, includes a traffic analysis of the proposed City Maintenance Yard along with the Oil Project Phase 3 construction traffic in section 4.13.7. The current Maintenance Yard generates 233 ADT. The analysis examined Valley Drive and Pier Avenue, 11th Place, 8th and 6th.
FLAM-22	This is a viable option that was added to mitigation measure TR-1d that could be used instead of the one-way option. The disadvantages are that it would double the number of trips that southern residents would experience. Either of the options (one-way of two-way south of 2nd) would substantially mitigate pedestrian risk levels around Pier Avenue and along Valley Drive.
FLAM-23	Project cost is addressed in the Cost Benefit Analysis.
FLAM-24	The Proposed Project requires specific amendments to the City's General Plan, Municipal Code, and Local Coastal Plan, see Section 4.10 of the DEIR. The text of the proposed ballot measure has not been finalized; however, the proposed changes to the City land use regulations would be required for the Project development agreement to be approved by the City.
FLAM-25	The ballot language has not been developed at this time.

Comment #	Response
FLAM-26	If the Project is approved by the voters, the specifics of the design of the temporary yard would be developed by the Public Works Department during the detailed permitting stage after the vote and considered for approval by the Planning Commission as part of a Planned Development Permit.
FLAM-27	The Police Department has indicated that closing off Bard would be preferable and that they have done trial periods without any concerns; therefore, the impacts associated with closing off Bard during the temporary construction are assumed to be less than significant.
FLAM-28	Information on the activities associated with the old Stinnett well has been added to the FEIR in air quality in order to define potential odor issues. Note that no wells will be "bled off" as was historically the case, but the information is used to indicate that the gas did have some odors.
FLAM-29	The Public Works Department and City staff reviewed all potential areas, including areas within Redondo Beach and a cooperative agreement with Redondo Beach, in order to identify potential sites. Most of the sites were too small or would require splitting up the functions of the maintenance yard. This location was preferred by City staff as it is most likely to meet the City's objectives for relocation of the City Maintenance Yard. In addition, the EIR reviewed a number of different locations in section 5, Alternatives.
FLAM-30	Additional mitigation has been added to section 4.6, Fire Protection and Emergency response, to ensure that flapper valves are installed on these drain locations and that the storage capacity of the site during Phase 2 and Phase 4 is sufficient. The emergency response plans would be prepared during the permit stages that would occur after the conclusion of the vote. Emergency response plans to oil and gas exploration projects are common in Los Angeles, other fire departments have hazmat units capable of responding to an oil well fire or an oil spill, and these capabilities can be brought to this Project through increased training or expanded mutual air agreements. The feasibility of developing a detailed emergency response plan is not in doubt. Please see response to comment FLAM-4.

John Freiburghouse

Comment #	Response
FREJ-1	Information on the financial issues associated with the Proposed Project are detailed in the Cost Benefit Analysis.
FREJ-2	Section 14.0 of the Cost Benefit Analysis provides a discussion on employment impacts to Hermosa Beach associated with the Proposed Project.
FREJ-3	Section 4.5 of the DEIR includes discussion of alternative energy sources.
FREJ-4	The Project would have aboveground components, including the drill rig and associated equipment and would be located onshore at the Proposed Project Site at 555 6th Street.
FREJ-5	The DEIR analyzes the Proposed Project's potential for an oil spill and recommends mitigation measures to reduce the potential in section 4.8, Safety and Risk, and section 4.3, Biological Resources.
FREJ-6	Information on the financial issues associated with the Proposed Project are detailed in the Cost Benefit Analysis.

Philip Freidl

Comment #	Response
FRIP-1	Additional text has been added to the environmental setting, impacts evaluation,

	and mitigation measures with regard to induced seismicity. MRS has completed an independent peer review of the Geosyntec (2012) report.
FRIP-2	Additional text has been added in response to the comment within Section 4.7, Geological Resources and Soils. See page 4.7-9.
FRIP-3	Text has been added from the National Academy of Sciences (2013) paper, referenced in the comment. Although it is acknowledged that a site specific hazard assessment, using methodologies described in the National Academy of Sciences paper would be useful, a more specific study is not necessary for the purposes of this environmental review under CEQA. In addition, the existing Project-specific seismic study completed by Geosyntec Consultants (2012) has demonstrated that past seismic activity has not coincided with past oil field operations in the Torrance Oil Field. Therefore, it is unlikely that additional wells would induce seismicity. The lack of earthquakes induced by existing wells drilled in the field is demonstrative of existing in-situ conditions. Existing mitigation measures are not confined to seismic monitoring. Measure GEO-2a requires that injection pressures not exceed reservoir fracture pressures, based on DOGGR mandated step-rate tests. In addition, Measure GEO-2c mandates adjustment of wastewater injection to alleviate any Project-induced seismicity. This reactive protocol is supported in the National Academy of Sciences paper (bottom of page 149). Measure GEO-2c also indicates that injection operations and step-rate tests would be coordinated with DOGGR; therefore, the operator would not be strictly self-monitoring, as indicated in the comment.
FRIP-4	While it is acknowledged that unknown faults exist throughout southern California, it's not reasonable or mandated to include unknown faults in site-specific seismic analyses. Conjecture of location, size, and type of any unknown fault would be highly speculative and misleading to the analysis.
FRIP-5	The reference to "small" area of influence cannot be located in the text. The text related to the distance from Offshore Fault 103 to the wastewater injection wells has been deleted. Active faults are included in the analysis because they are the most likely to be affected. All inactive or potentially active faults are not considered pertinent to the analysis.
FRIP-6	Text has been added with respect to earthquake swarms. See page 4.7-9.
FRIP-7	The City is not qualified to second guess the reliability of DOGGR staff and the applicant's adherence to established laws; therefore, the risks identified in the comment have not been addressed. However, induced seismicity requirements are part of the mitigation measures and compliance will be ensured by the City if other agencies do not provide adequate oversight.
FRIP-8	The EIR finds that significant impacts could occur as a result of the Project, as disclosed by the conclusions of significant and unavoidable water quality impacts in Section 4.9, Hydrology, as well as significant and unavoidable impacts associated with nine other resources (see Tables ES-2 and ES-3, Executive Summary).

Hiro Fujii

Comment #	Response
FUJH-1	The comment is not relevant to the DEIR. SaveSorb absorbent material is a vendor supplied product for spill clean-up.

Michelle Geller & Connor Axtell

Comment #	Response
GELM-1	The City Council is responsible for certifying the EIR, but the people of the City

	of Hermosa Beach will vote on the Project and are the decision-makers for this Project.
GELM-2	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project, section 4.8 discusses the spill history and spill potential with the Project, section 4.3 discusses the impacts of spills on Biological Resources. Note that all of the E&B spills listed in the database were contained by onsite berms. The EIR preparers agree with the statement that oil spills pose a threat to the environment including biodiversity, sensitive species, and plankton. Impact BIO-2 states: "A rupture or leak from oil Pipelines has the potential to result in a substantial adverse effect on native species and habitats, sensitive species, and biologically important habitats associated with the Pacific Ocean," and has classified this impact as Class I, significant and unavoidable.

Raquel Gerard

Comment #	Response
GERR-1	Thank you for your comments.
GERR-2	Section 4.5 of the DEIR includes discussion of alternative energy sources.
GERR-3	The DEIR addresses the potential impacts of an oil spill and acknowledges the fact that the potential of an oil spill is a Class I impact, significant and unavoidable. Section 4.3 discusses potential impacts to biological resources, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR indicates that an oil spill would have the potential to impact recreational resources.
GERR-4	Section 4.13, Transportation and Traffic, analyzes the potential impacts and mitigation for traffic impacts. Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
GERR-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

Josh Gillam

Comment #	Response
GILJ-1	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
GILJ-2	The EIR details many of the regulations that the Project would have to comply with in section 4.0, and each issue area has a regulatory background section. Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
GILJ-3	Section 4.8, Safety and Risk, details the safety issues associated with the Project.
GILJ-4	Note that the Proposed Project does not involve permanent transportation of oil by truck, only during Phase 2.
GILJ-5	Thank you for your comments.

Jenessa Gonzalez

Comment #	Response
GONJ-1	Thank you for your comments.
GONJ-2	Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts; Impact TR-1 address potential impacts to pedestrians and mitigation measures to reduce those impacts.

GONJ-3	The DEIR examines the noise produced by the Project and section 4.11 includes a detailed analysis of the noise impact of the various Project phases.
GONJ-4	See Section 4.2, Air Quality and Greenhouse Gases, for a discussion on GHGs and the Proposed Project air emissions.
GONJ-5	Section 4.10 of the DEIR provides an evaluation of the consistency of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
GONJ-6	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis. Section 4.1, Aesthetics, provides information on the views of the Project components.

Marilyn Gudmundssen

Comment #	Response
GUDM-1	As required by the California Environmental Quality Act (CEQA), the DEIR must include alternatives to the Proposed Project. The DEIR shall describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant effects of the Project, and evaluate the comparative merit of the alternatives. As the Proposed Project is the development of oil resources, each alternative including the No Project Alternative was evaluated pursuant to that subject matter. Regarding the selection of the lead agency for the Proposed Project, the City of Hermosa Beach followed the guidelines stipulated in Article 4, Sections 15050 and 15051 of the California Environmental Quality Act (CEQA) to determine the appropriate lead agency for the Project. CARB reports detail the relationship between imported crude oil and California production. As crude oil consumption has been relatively steady over the last 10 years, and there are no crude oil pipelines into the State, a reduction in California crude oil production directly translates into increased importation.
GUDM-2	Section 4.10 of the DEIR details the specific amendments to the City's General Plan, Municipal Code, and Local Coastal Plan that would be required for Project approval.
GUDM-3	The Proposed Project does not involve hydraulic fracturing technology. Section 4.9, Hydrology and Water Quality, presents the potential impacts to groundwater and recommends mitigation measures to minimize the impacts. The exemption in the Federal Energy Policy Safe Drinking Water Act (SDWA) of 2005, often known as the Halliburton Loophole, applies to the underground injection of natural gas for purposes of storage and the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities. The Proposed Project does not involve the underground storage of natural gas or hydraulic fracturing technology.
GUDM-4	The California Environmental Quality Act (CEQA) does not require that the EIR process be stopped if a Proposed Project is determined to have a potential Class I impact. Class I impacts are defined as those impacts that cannot be mitigated to a level of less than significant, the DEIR evaluation of the Proposed Project presents impacts that were determined to be Class I, as required by CEQA. Many projects have significant and unavoidable impacts (the Hermosa Beach Hotel Project had 4 significant and unavoidable impacts) and still move forward.
GUDM-5	The March 2013 National Geographic article referenced in the comment discussed oil development operations in North Dakota and is not relevant to the Proposed Project. The Proposed Project does not involve hydraulic fracturing technology. Regarding traffic, Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts

Shaun Gudmundssen

Comment #	Response
GUDS-1	The comment expresses concern that the City of Hermosa Beach may approve the Proposed Project without the input of the voters of the City and that the objective of the City is to approve the Project. The objective of the City was to prepare an Environmental Impact Report as lead agency for the Proposed Project. The Draft Environmental Impact Report (DEIR) was prepared in accordance with the California Environmental Quality Act (CEQA) and CEQA Guidelines to assess potential significant environmental impacts of a Proposed Oil Development Project in the City of Hermosa Beach. The City of Hermosa Beach is the public agency with principal responsibility for review of the Proposed Project and is therefore the lead agency for preparation of the DEIR. The decision to approve or deny E&B's Project and the Amendments associated with Oil Development will be made by the voters in Hermosa Beach, in accordance with a Settlement Agreement entered into by the City, the Applicant and Macpherson Oil Company.
GUDS-2	The Proposed Project is subject to approval of the voters of Hermosa Beach, see Section 1.0, Introduction, for background history, legal issues, and the Settlement Agreement information. Certain types of correspondence between an Applicant and a regulatory agency are public documents and their disclosure is governed by the California Public Records Act; therefore, you may contact the City of Hermosa Beach for information on what documentation on the Proposed Project is available to the public and to request a copy of such documentation.
GUDS-3	Comment that the Proposed Project would not be beneficial to the City of Hermosa Beach noted. The DEIR, prepared pursuant to the California Environmental Quality Act (CEQA), is intended to inform governmental decision makers and the public about the potential significant environmental effects of proposed activities, identify the ways that environmental damage can be avoided or significantly reduced and prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures. Information on the financial issues associated with the Proposed Project is included in the Cost Benefit Analysis. There is no substantial evidence to indicate that the City is not neutral, and the ultimate decision on whether to approve the Project will be made by the voters

Julie A. Hamill, Esq.

Comment #	Response
HAMJ-1	The Proposed Project does not involve the use of sonar or any other technology that would introduce sound into the marine environment. The Project involves the use of directional drilling technology from an onshore based drilling rig to access oil reserves several thousand feet below the ocean floor. The Proposed Project does not involve the use of boats, tankers, or any other type of marine vessel. Therefore, the Proposed Project would not involve potential noise or sound impacts to marine mammals.

Breanna Harris

Comment #	Response
HARB-1	Thank you for your comments.
HARB-2	See the Cost Benefit Analysis for a discussion on the financial issues associated with the Proposed Project.

Comment #	Response
HARB-3	The DEIR evaluates the potential impacts and land use implications for the Proposed Project. Specifically, Section 4.8 (Safety, Upset and Risk of Hazards) and Section 4.2, Air Quality and GHG's, discuss the potential safety and health impacts of the Proposed Project.
HARB-4	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
HARB-5	See the Executive Summary of the DEIR for information on the history and background of the Proposed Project.
HARB-6	The Proposed Project is not a shale mining Project nor does it involve the use or generation of coke or semi-coke.
HARB-7	See Section 4.8 Safety, Risk of Upset, and Hazards for a discussion of the history and potential risk of spills of the potential Project.
HARB-8	The Proposed Project is not a shale mining Project. Water produced by the Project would be injected back into the reservoirs that it was taken out of.
HARB-9	See section 4.2 for a discussion of the air quality impacts including GHG emissions.
HARB-10	Thank you for your comments.

Delaney Hawkes

Comment #	Response
HAWD-1	Thank you for your comments.
HAWD-2	The DEIR analyzes the noise produced by the Project and section 4.11 includes a detailed analysis of the noise impact of the various Project phases - including the construction at the Project Site in Phases 1 and 3 and the construction of the pipelines in Phase 3.
HAWD-3	Section 4.10 of the DEIR provides an evaluation of the consistency of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism. Section 4.10 of the DEIR acknowledges the fact that the potential of an oil spill is a Class I impact, significant and unavoidable and would have the potential to impact recreational resources.
HAWD-4	Section 4.3 discusses potential impacts of an oil spill to biological resources, and identifies impacts from an oil spill into the marine environment as being a Class I, significant and unavoidable impact, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
HAWD-5	Section 4.7, Geological Resources-Soils discussed the Proposed Project and the potential for earthquakes.
HAWD-6	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

Hayley Hendrickson

Comment #	Response
HENH-1	Thank you for your comments.
HENH-2	See Section 4.2 of the DEIR for a discussion on the air quality impacts of the Project.
HENH-3	Section 4.1 of the DEIR provides an analysis of the impacts of the Proposed Project to the character and quality of the existing Project site and its surroundings. Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the

Comment #	Response
	small town beach atmosphere and promote tourism. Section 12.0 of the Cost Benefit Analysis provides a discussion of the potential impact of the Proposed Project to the property values of Hermosa Beach.
HENH-4	Section 4.3 discusses potential impacts of an oil spill to biological resources, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources. The EIR preparers agree with the statement that oil spills in the marine environment pose a threat to the environment including sea mammals, and important habitats. Impact BIO-2 states: "A rupture or leak from oil Pipelines has the potential to result in a substantial adverse effect on native species and habitats, sensitive species, and biologically important habitats associated with the Pacific Ocean," and has classified this impact as Class I, significant and unavoidable.
HENH-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
HENH-6	The EIR describes and estimates the extent of some of these potential impacts.

Josh Hoffman

Comment #	Response
HOFJ-1	Thank you for your comments.
HOFJ-2	Section 4.8 Safety and Risk, quantifies the estimated frequency of a blowout or an oil spill. Section 4.3, Biological Resources, discusses potential impacts of an oil spill to biological resources, and acknowledges the fact that the potential of an oil spill is a Class I impact, significant and unavoidable. Section 4.9, Hydrology, provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
HOFJ-3	See Section 4.2 of the DEIR for a discussion on the air quality impacts of the Project, including NOx and vehicle emissions.
HOFJ-4	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
HOFJ-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

Cole Keefer

Comment #	Response
KEEC-1	Thank you for your comments.
KEEC-2	Section 4.3 discusses potential impacts of an oil spill to biological resources, and acknowledges the fact that the potential of an oil spill is a Class I impact, significant and unavoidable. Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
KEEC-3	Section 4.7, Geological Resources-Soils discussed the Proposed Project and the potential for earthquakes.
KEEC-4	Comment that the Proposed Project would not be beneficial to the City of Hermosa Beach noted.
KEEC-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

Kelli Killman

Comment #	Response
KILK-1	Thank you for your comments.
KILK-2	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
KILK-3	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
KILK-4	Some discussion on the use of foreign oil is included under the no Project discussions in section 5 and 6 of the DEIR.
KILK-5	Section 4.2, Air Quality and GHG, addresses the potential impacts of hydrogen sulfide.

Carter Kimble

Comment #	Response
KIMC-1	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis. Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project.

Everett Kim

Comment #	Response
KIME-1	Thank you for your comments.
KIME-2	Section 4.8, Safety and Risk, and section 4.2, Biological Resources, address the probabilities and impacts of an oil spill. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources. The DEIR (Section 4.3) address the potential impacts of an oil spill on biological resources and acknowledges the fact that the potential of an oil spill is a Class I impact, significant and unavoidable.
KIME-3	The role of the City Council is to certify the EIR. The voters will be the decision makers and decide if the Project would move forward.
KIME-4	See Section 4.2 of the DEIR for a discussion on the air quality impacts of the Project.
KIME-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
KIME-6	See Section 4.2 of the DEIR for a discussion on the air quality impacts of the Project.

Kirk (no last name given)

Comment #	Response
KIRK-1	The Project's proponent is E&B Natural Resources. Multiple wells have been proposed at this site since at least the early 1990s. For a description of risks associated with proposed wells, see the Draft EIR's section on Safety, Risk of Upset & Hazards (section 4.8). See the EIR's other corresponding sections on air quality and water quality for discussions of pollution impacts. For a discussion on the relationship of the number of wells to impacts, see the Draft EIR at page 5-17 and the extensive discussion beginning on Page 6-15.
KIRK-2	The Project (if approved) would be governed by conditions of the existing (1993) Conditional Use Permit, the lease held by E&B for use of the property, and the Development Agreement that would serve as the principal contract between the City and Applicant. The Development Agreement would restrict the

	Project to those uses identified in the EIR, along with mitigation measures prescribed by the EIR (as conditions of approval). The Project does not propose use of public park lands or schools. These uses are prohibited by the CUP.
KIRK-3	The Draft EIR identifies the height of the proposed drilling rig and work-over rig (84 and 110 feet, respectively) in the Project Description section. The visual effects of the rig are described in the Aesthetics section of the EIR (Section 4.1).
KIRK-4	The Draft EIR presents several measures for reducing impacts related to noise, air and water pollution and vibrations. See sections 4.11, 4.2 and 4.14. Well are proposed to have down-hole pumps, which would produce substantially less noise than surface pumps.
KIRK-5	Potential hazards and release scenarios related to natural gas and the potential for explosions (and other hazards) are discussed in detail in Section 4.8, Safety and Risks, of the Draft EIR.
KIRK-6	Please see section 4.8 for a discussion of potential scenarios that might result from the Proposed Project and their probability of occurrence.

Tyler Knudson

Comment #	Response
KNUT-1	Section 4.3 discusses potential impacts of an oil spill to biological resources, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
KNUT-2	Section 4.2, Air Quality and GHG, addresses the potential impacts and recommends mitigation to reduce air toxics and criteria pollutant impacts from the Proposed Project.
KNUT-3	Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts.
KNUT-4	While the life of the Project may be as long as 35 years, the construction work is limited to Phases 1 and 3, for a total duration of less than 3 years. Section 4.11 of the DEIR includes a detailed analysis of the noise during the construction phases of the Project.
KNUT-5	See Section 2.0 of the DEIR for information on the infrastructure proposed for the Project and section 4.10 provides information on the land use impacts.
KNUT-6	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
KNUT-7	Section 4.5 of the DEIR includes discussion of alternative energy sources.
KNUT-8	Thank you for your comments.

Jeff Krag

Comment #	Response
KRAJ-1	Comment noted.
KRAJ-2	Both the previous risk assessment by Macpherson, the current risk assessment by E&B and the risk assessment conducted in the EIR determine that releases could produce explosions that could impact nearby residences and businesses. The 500 gallon propane tank currently at the City Maintenance Yard could also impact nearby residences if it were to explode. This is discussed in the EIR section 4.8, Safety and Risk.
KRAJ-3	Risk assessments are complicated and a degree of explanation must be incorporated so that the general lay person has a chance of understanding the topic. Table 4.8-10 provides detailed information on each release scenario examined, including pressure, temperature, line sizes, vessels and release volume. The specifics of the modeling are included in the risk appendix.

KRAJ-4	API RP 752 provides requirements related to explosion overpressure in refineries, chemical facilities, and similar industrial operations, and is intended to be used for control rooms and other occupied buildings located on a facility site. The Applicant has not indicated that it would utilize API 752. However, as part of the requirements to meet the fire codes related to separation distances from neighboring buildings, API 752 may be used to estimate the blast effects on nearby buildings that are not on the facility site and may utilize the approaches in API 752 to design blast walls to protect neighboring buildings. The exact approach to assessing potential impacts and design criteria has not been developed at this point. Reference to utilizing the design of blast walls using API 752 has been added to mitigation measure FP-2a in section 4.6, Fire Protection and Emergency Response, in the development of design measures and performance standards to meet the applicable fire codes.
KRAJ-5	The primary concern with distances is related to power lines. OSHA requires separation distances from power lines in order to prevent electrocution hazards, which is a leading cause of worker fatalities associated with cranes. OSHA does not require separation or evacuation of areas equal to the boom radius. This would be infeasible for most construction projects in urban areas.
KRAJ-6	The cancer plume maps shown in section 4.2, Air Quality and GHG, depict the cancer zones with and without mitigation. The mitigation is primarily focused on the elimination of diesel particulate matter. The toxic map shown in section 4.8, Safety and Risk, is related to the toxicity associated with the odorant used to odorize the natural gas.
KRAJ-7	Welding is included in the construction emissions under Phase 3 construction and is included in the emissions estimates. See air quality appendix associated with construction emissions.
KRAJ-8	The EIR examines the releases of a blowout at 800 psig. The blowout scenario produces the majority of the onsite risk. Distances of blowout impacts are shown in Figure 4.8-5 and in the risk appendix. The overspray, meaning the spray of crude oil into the air causing primarily environmental impacts (i.e. a mess), would be less than the vapor cloud distances caused by the release of gas also associated with a blowout scenario. Therefore, the gas distances are used.
KRAJ-9	The yearly time limit, of 200 hours per year, is a requirement of the SCAQMD and would be applicable as part of the regulatory requirements on the Project. The EIR applies a daily limit in order to reduce emissions of criteria pollutants on the peak day. If either limit is approached, the operator would be required to shut in wells.
KRAJ-10	For a small facility, two operators at night is standard practice at many oil and gas production facilities in California. If an operator goes "down", the approach would be to call the Fire Department for assistance in emergency response. The Applicant indicates that the facility would operate under an Emergency Action Plan, meaning that the facility would rely on the Fire Department for responding to incidents and would not take on the full response capabilities, like the Chevron Refinery does, for example. Mitigation measures require that the operators be trained in first response to spills, and be HAZWOPER trained to the technician level.
KRAJ-11	The amortization of construction emissions is only done for GHG emissions and is the required approach by the SCAQMD.
KRAJ-12	The Applicant has designed the site with two 2,900 bbl crude oil tanks. At 8,000 bbl per day, this would total only about 17 hours of storage before the wells would need to be shut in. This is one of the operating constraints of a small site.
KRAJ-13	The shipping tanks would be vertical fixed roof tanks with vapor recovery. Emissions would be substantially reduced with the use of vapor recovery.
KRAJ-14	Equipment spacing, and associated buffers, would be required to comply with applicable codes and standards for equipment spacing. Flare locations would be

	required to comply with acceptable thermal radiation requirements, which may require the installation of thermal barriers. The EIR requires the installation of a 35 foot wall during Phase 4, which would act as a thermal barrier. During Phase 2, the flare volumes would not be large, yet allowable thermal exposures would still need to be met. Because the flares would be internal flares, they would act more like heaters, yet thermal radiation levels would need to be demonstrated to be acceptable. API Standard 521 "Pressure-relieving and Depressuring Systems" contains recommended allowable thermal radiation limits for personnel and has been added to the mitigation measures to ensure performance standards are met.
KRAJ-15	The detailed design of the facilities has not been conducted at this time. The criteria would be based on multiple factors, including the Local Emergency Planning Committee Region 1 CalARP guidance, which is specified in mitigation measure SR-1a.
KRAJ-16	The crane would be onsite for only a period of two weeks and is therefore temporary and would not constitute a visual impact. However, a view of the crane has been added to the FEIR. Processing equipment is required to be less than 16 feet high pursuant to the CUP. Some would be visible over the top of the 16 foot wall, but generally these views would show minimal equipment.
KRAJ-17	Comment noted.
KRAJ-18	The risk assessment conducted in the EIR did not assume that there would be automatic valves at all vessels and in numerous locations within the facility as the details of this design were not completed. The EIR assumes that the inventory at the site of gas processing equipment would be released in the event of a break. It was assumed that the vapor cloud would form based on the peak release rate. Both of these are conservative assumptions about the extent of the vapor cloud sizing, but provides for estimating a worst case scenario. Some limits were imposed, however, including that gas would not flow back through the compressors, as that would be physically challenging.
KRAJ-19	Leaks were assumed to be 1 inch along with ruptures that were assumed to release through the maximum pipe size, which, in this case, ranged from 1 to 6 inches. The correlation of leak size is based on the frequency, where the failure rates of piping and valves, for example, are based on the release size. A 2 inch hole in a 4 inch pipe would produce a substantial release, classifying it as a rupture not a release, and it would be assigned the corresponding rupture rate. Many "leaks" from valves are actually much less than 1inch, yet are still given the release rate of a 1inch hole along with the corresponding release frequency.
KRAJ-20	The only material at the Proposed Project Site which could produce a BLEVE would be the propane refrigeration system. The crude oil tanks are not capable of a BLEVE. Some of the separators, for example, if full of crude oil and blocked in, with a pressure relief failure, and exposed to a fire for an extended period, could BLEVE. Note that the current City Maintenance Yard has a 500 gallon propane tank, which could also BLEVE. The higher frequency scenario would be an explosion of released gas, which is confined by the bermed area and/or walls, leading to an overpressure scenario. This scenario was addressed in the EIR and is shown in section 4.8, Safety and Risk, as an overpressure zone.
KRAJ-21	Both the previous risk assessment by Macpherson, the current risk assessment by E&B and the risk assessment conducted in the EIR determine that releases could produce explosions that could impact nearby residences and businesses. This is discussed in the EIR section 4.8, Safety and Risk. Please see response to comment KRAJ-2.
KRAJ-22	API RP 752 provides requirements related to explosion overpressure in refineries, chemical facilities, and similar industrial operations, and is intended to be used for control rooms and other occupied buildings located on a facility site. The Applicant has not indicated that it would utilize API 752. However, as part of the requirements to meet the fire codes related to separation distances from

	neighboring buildings, API 752 may be used to estimate the blast effects on nearby buildings that are not on the facility site and may utilize the approaches in API 752 to design blast walls to protect neighboring buildings. The exact approach to assessing potential impacts and design criteria has not been developed at this point. Reference to utilizing the design of blast walls using API 752 has been added to mitigation measure FP-2a in section 4.6, Fire Protection and Emergency Response, in the development of design measures and performance standards to meet the applicable fire codes. In addition, mitigation has been added to eliminate the use of propane as a refrigerant. Please see response to comment KRAJ-4.
KRAJ-23	The primary concern with distances is related to power lines. OSHA requires separation distances from power lines in order to prevent electrocution hazards, which is a leading cause of worker fatalities associated with cranes. OSHA does not require separation or evacuation of areas equal to the boom radius. This would be infeasible for most construction projects in urban areas. Please see response to comment KRAJ-5.
KRAJ-24	The reductions in cancer risk are due to the mitigation measures proposed; primarily the limits on diesel particulate matter emissions, which comprise the majority of the cancer risk. Additional text has been added to the FEIR to clarify this point.
KRAJ-25	Welding is included in the construction emissions under Phase 3 construction and is included in the emissions estimates. See air quality appendix associated with construction emissions.
KRAJ-26	The EIR examines the releases of a blowout at 800 psig. The blowout scenario produces the majority of the onsite risk. Distances of blowout impacts are shown in Figure 4.8-5 and in the risk appendix. The overspray, meaning the spray of crude oil into the air causing primarily environmental impacts (i.e. a mess) would be less than the vapor cloud distances caused by the release of gas also associated with a blowout scenario. Therefore, the gas distances are used. Overspray issues would be primarily environmental and are therefore only discussed qualitatively. No mitigation for overspray is proposed. A fire from a well blowout could continue for days as the reservoir would continue to feed the release. The EIR assumed that the thermal effects would produce impacts based on the peak release rate, thereby ensuring a conservative assessment of risk. Thermal impacts are assumed to be realized within the first minute or so of a release. Please see response to comment KRAJ-8.
KRAJ-27	There would be two flares used; one that runs continuously during Phase 2 and one that is an emergency flare during Phase 4. The Applicant provided information on the flares as part of the information request stage and these have been added to Appendix A in the FEIR. The CUP requires that the flare be enclosed (section 11.13).
KRAJ-28	The Applicant provided information on the flares as part of the information request stage and these have been added to Appendix A in the FEIR. The design basis for the Phase 2 and Phase 4 flares are the maximum anticipated gas production levels.
KRAJ-29	The yearly time limit, one of 200 hours per year, is a requirement of the SCAQMD and would be applicable as part of the regulatory requirements on the Project. The EIR applies a daily limit in order to reduce emissions of criteria pollutants on the peak day. If either limit is approached, the operator would be required to shut in wells. Please see response to comment KRAJ-9.
KRAJ-30	For a small facility, two operators at night is standard practice at many oil and gas production facilities in California. If an operator goes "down", the approach would be to call the Fire Department for assistance in emergency response. The Applicant indicates that the facility would operate under an Emergency Action Plan, meaning that the facility would rely on the Fire Department for responding

	to incidents and would not take on the full response capabilities, like the Chevron Refinery does, for example. Mitigation measures require that the operators be trained in first response to spills, and be HAZWOPER trained to the technician level. Please see response to comment KRAJ-10.
KRAJ-31	The Applicant has designed the site with two 2,900 bbl crude oil shipping tanks. At 8,000 bbl per day, this would total only about 17 hours of storage before the wells would need to be shut in. This is one of the operating constraints of a small site. The lack of residence time would limit the amount of dewatering that could occur. Please see response to comment KRAJ-12.
KRAJ-32	The Applicant has proposed tank hatch vapor capture, with the tank hatch failures/lifting being directed to vapor recovery. This would reduce the frequency of odor events.
KRAJ-33	The tanks are vertical fixed roof design with vapor control. This design would be acceptable to the SCAQMD due to the use of vapor recovery. Please see response to comment KRAJ-13.
KRAJ-34	The site footprint causes a number of constraints for the operations of the facility, but the facility could operate under these constraints and the design is feasible and must be evaluated under CEQA.
KRAJ-35	The Applicant indicates that it expects an H2S level of 6 ppm, but has designed the facility to process 100 ppm H2S. Therefore, the EIR assumes a level of 100 ppm in all the produced gas.
KRAJ-36	Text has been modified in the EIR to address monitor placement and detection levels. Detection levels of H2S below 1 ppm would require extensive equipment, including possibly refrigeration systems, trailer mounted, etc.
KRAJ-37	Text has been modified in the mitigation measures to ensure that the highest H2S allowed within any portion of the facility is 100 ppm.
KRAJ-38	Equipment spacing would be required to comply with applicable codes and standards for equipment spacing. Flare locations would be required to comply with acceptable thermal radiation requirements, which may require the installation of thermal barriers. The EIR requires the installation of a 35 foot wall during Phase 4, which would act as a thermal barrier. During Phase 2, the flare volumes would not be large, yet allowable thermal exposures would still need to be met. API Standard 521 “Pressure-relieving and Depressuring Systems” contains recommended allowable thermal radiation limits for personnel. The requirements for spacing of crude oil tanks would comply with State of California Safety Orders, which require a spacing distance of about 7 feet between the tank and the "Nearest Side of Any Public Way". Please see response to comment KRAJ-14.
KRAJ-39	The detailed design of the facilities has not been conducted at this time. The criteria would be based on multiple factors, including the Local Emergency Planning Committee Region 1 CalARP guidance, which is specified in mitigation measure SR-1a. Please see response to comment KRAJ-15.
KRAJ-40	The crane would be onsite for only a period of two weeks and is therefore temporary and would not constitute a visual impact. However, a view of the crane has been added to the FEIR. Processing equipment is required to be less than 16 feet high as per the CUP. Some would be visible over the top of the 16 foot wall, but generally these views would show minimal equipment. Please see response to comment KRAJ-16.
KRAJ-41	Comment noted.

Michael V. Leahy

Comment #	Response
LEAM-1	See Section 15.0 of the Cost Benefit Analysis for a discussion on the potential hazards and financial protections of the Proposed Project. The development

	agreement would contain requirements for bonding and insurance.

Andrea Lee

Comment #	Response
LEEA-1	Thank you for your comments.
LEEA-2	Section 4.8, Safety and Risk, addresses the potential safety impacts and recommends mitigation to reduce those impacts from the Proposed Project.
LEEA-3	Air quality and health are discussed in section 4.2 of the DEIR.
LEEA-4	Section 4.5 of the DEIR includes discussion of alternative energy sources. Note that currently, hydrogen is produced from natural gas.
LEEA-5	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project.

Diego Marcucci

Comment #	Response
MARD-1	Thank you for your comments.
MARD-2	See Section 4.2 of the DEIR for a discussion on the air quality impacts of the Project.
MARD-3	Potential hazards and release scenarios related to natural gas and the potential for explosions (and other hazards) are discussed in detail in Section 4.8 of the Draft EIR.
MARD-4	Section 4.1 of the DEIR provides an analysis of the impacts of the Proposed Project to the character and quality of the existing Project site and its surroundings. Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism. In addition, Section 13.2 of the Cost Benefit Analysis provides a discussion of the potential impact of the Proposed Project to tourism.
MARD-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
MARD-6	Thank you again for your comments.

Valentina Marmol

Comment #	Response
MARV-1	Section 4.5 of the DEIR includes discussion of alternative energy sources.
MARV-2	The DEIR reflects the concern about the noise produced by the Project and section 4.11 includes a detailed analysis of the noise impact of the various Project phases. Sections 4.2, Air Quality, and section 4.8, Safety and Risk, address issues related pollution and safety.
MARV-3	Section 4.3 discusses potential impacts of the Proposed Project to biological resources and acknowledges the fact that the potential of an oil spill into the marine environment is a Class I impact, significant and unavoidable.
MARV-4	See Section 4.2 of the DEIR for a discussion on the air quality impacts of the Project.
MARV-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
MARV-6	Section 4.3 discusses potential impacts of an oil spill to biological resources, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.

MARV-7	Thank you for your comments.

Justin Massey

Comment #	Response
MASJ-1	The DEIR, prepared pursuant to the California Environmental Quality Act (CEQA), is intended to inform governmental decision makers and the public about the potential significant environmental effects of proposed activities, identify the ways that environmental damage can be avoided or significantly reduced and prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures. An executive summary is provided.
MASJ-2	Additional subject information from page 2-5 of the DEIR; *Pursuant to the March 2, 2012 Settlement Agreement between the City of Hermosa Beach, E&B, and Macpherson Oil Co., the City's primary objective is to comply with the California Environmental Quality Act and place on the ballot a measure allowing the City of Hermosa Beach electorate to decide whether or not to approve the Applicant's Proposed Oil Project and a Development Agreement to vest the Project so that, if approved, the Project cannot later be invalidated by a vote of the people.*
MASJ-3	The DEIR identifies impacts and recommends mitigation measures to reduce the level of those impacts. Compliance and mitigation plans are common mitigation measures. The DEIR recommends such plans and identifies the performance criteria for such plans. Detailed plans are not required to be submitted or approved in the DEIR. Compliance and mitigation plans would be required to be completed and approved by the applicable agency prior to final approval/issuance of Project permits.
MASJ-4	The DEIR was prepared pursuant to the California Environmental Quality Act (CEQA). Section 15126.6(d) of the CEQA Guidelines states: The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project. A matrix displaying the major characteristics and significant environmental effects of each alternative was used to summarize the comparison. Alternatives are discussed but in less detail than the significant effects of the Project as proposed.
MASJ-5	The EIR provides an executive summary which clearly describes the significant impacts of the Project. If the reader wishes a more in depth discussion, the main body of the EIR is available for detailed analysis.
MASJ-6	The risk assessment in section 4.8 follows established practice for the preparation of risk assessments. Specifics to the design are incorporated. While E&B has had recorded spills, none of the spills were outside containment.
MASJ-7	An oil leak from the equipment within the facility would not produce offsite impacts and was therefore not included.
MASJ-8	The EIR does not conclude that GHG emissions would increase, only that the crude oil would need to come from somewhere. The analysis is qualitative and is based on reports by the CARB about the sources of crude oil to California refineries.

Barbara Mathieson

Comment #	Response
MATB-1	Section 4.3 discusses potential impacts of an oil spill to biological resources, and acknowledges the fact that the potential of an oil spill into the marine environment is a Class I impact, significant and unavoidable. Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR

	notes an oil spill would have the potential to impact recreational resources. Note the Proposed Project involves the use of tanker trucks to transport oil on a short term, temporary basis.

Carey McCormick

Comment #	Response
MCCC-1	Section 4.8 of the DEIR includes a discussion and assessment on the risk associated with the use of oil and gas pipelines and the pipelines associated with the Proposed Project. Historical data on other pipelines within California and the US is used to assess the risks from the proposed pipeline.

Stephen McCall

Comment #	Response
MCCS-1	Numerous other oil and gas facilities that include drilling and produce oil and gas are located in Los Angeles County, including in Whittier, Torrance, Wilmington, Huntington Beach, etc. However, each Project has its own individual set of circumstances and need to be evaluated independently of each other. Many projects operate successfully without incidents, while others have varied histories of incidents.
MCCS-2	An analysis of the proposed production volumes of other facilities is beyond the scope of the EIR.
MCCS-3	Section 4.2, Air Quality, describes potential health risks in comparison to established standards.
MCCS-4	Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism. In addition, Section 13.2 of the Cost Benefit Analysis provides a discussion of the potential impact of the Proposed Project to tourism. Note that the potential impacts to tourism are subjective and difficult to quantify.
MCCS-5	Current truck levels along Valley Drive were counted as part of the baseline assessment and are discussed in section 4.11, Traffic.
MCCS-6	The Cost Benefit Analysis discusses the implications of a no vote.
MCCS-7	The Cost Benefit Analysis discusses the implications of a yes vote.
MCCS-8	Fracking would not be allowed as part of the Proposed Project.
MCCS-9	Section 4.8, Safety and Risk, discusses the recorded history of E&B spill history.
MCCS-10	The Project would be limited by any lease arrangement.
MCCS-11	The positions of the City Council members are not a part of the EIR.

Kennedi McCarroll

Comment #	Response
MCCK-1	Thank you for your comments.
MCCK-2	See Section 4.2 of the DEIR for a discussion on the air quality impacts of the Project.
MCCK-3	Potential hazards and release scenarios related to natural gas and the potential for explosions (and other hazards) are discussed in detail in Section 4.8 of the Draft EIR.
MCCK-4	Potential hazards and release scenarios related to natural gas and the potential for explosions (and other hazards) are discussed in detail in Section 4.8 of the Draft EIR and impacts to biology are discussed in section 4.3, Biological resources.
MCCK-5	Noise impacts from the Proposed Project are presented in Section 4.11.
MCCK-6	See Section 4.2 of the DEIR for a discussion on the air quality impacts including

	odors of the Project.
MCCK-7	Section 12.0 of the Cost Benefit Analysis includes discussion on the impact of the Proposed Project on the private property values in Hermosa Beach. Section 4.10 of the DEIR provides an evaluation of the consistency of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
MCCK-8	Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism. In addition, Section 13.2 of the Cost Benefit Analysis provides a discussion of the potential impact of the Proposed Project to tourism.
MCCK-9	Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts.
MCCK-10	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

Morgan McCarroll

Comment #	Response
MCCM-1	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project.
MCCM-2	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project, including section 4.2, Air Quality.
MCCM-3	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
MCCM-4	The evaluation of aesthetics and visual resources is subjective and dependent on many variables including the distance of the object from the viewer. Section 4.1 of the DEIR presents a view shed analysis of the Proposed Project with 20 Key Observation Points (KOPs) in the City. Section 4.1 also provides an analysis of the impacts of the Proposed Project to the character and quality of the existing site and its surroundings. Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
MCCM-5	Section 4.7, Geological Resources-Soils discussed the Proposed Project and the potential for earthquakes and other geotechnical issues. Impact GEO-4 addresses the potential for subsidence from oil and gas withdrawal and mitigation measures GEO-4a and GEO-4b recommend measures to reduce the potential of subsidence to a less than significant level.
MCCM-6	The DEIR reflects the concern about the noise produced by the Project and section 4.11 includes a detailed analysis of the noise impact of the various Project phases. Air quality and odors are addressed in section 4.2.

Malik McDaniel

Comment #	Response
MCDM-1	Thank you for your comments.
MCDM-2	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
MCDM-3	A discussion on the use of foreign oil is included in section 5 under the No Project Alternative.
MCDM-4	Section 4.5 of the DEIR includes discussion of alternative energy sources.
MCDM-5	Section 4.2 of the DEIR for a discussion on the air quality impacts including

	odors of the Project.

Chris Miller

Comment #	Response
MILC-1	No indications of soil methane have been exhibited in the area. Soil sampling has been conducted onsite and no methane has been detected. Methane releases during the Project drilling and production could occur and are addressed in section 4.2, Air Quality, and section 4.8, Safety and Risk.
MILC-2	Hydrogen sulfide monitoring would be conducted at site perimeters at levels substantially below those required for action by OSHA.
MILC-3	The reinjection of produced water that is proposed as part of the Project would dispose of the same water, after it has been separated from the oil and gas, that is brought up from the reservoir during oil production. The water will be reinjected back into the same reservoir it came from at volumes that could be the same or less than the volumes produced. A comprehensive Induced Seismicity Monitoring Program would be implemented as a part of the Proposed Oil Project in order to monitor seismic activity in the area during oil extraction and water injection.
MILC-4	The commenter's views in opposition to the Project are acknowledged.

Roberta Moore

Comment #	Response
MOOR-1	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
MOOR-2	The details of the lease payment requirements are outside the scope of the EIR.
MOOR-3	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
MOOR-4	Section 4.1 provides views of the drilling rig from a distance, where it is often barely discernible, and from close, where it is clearly dominant.
MOOR-5	Oil on the beaches as tar does not necessarily mean that there is oil that can be economically recovered through the drilling process.
MOOR-6	Wilmington has a number of similar oil and gas development facilities.

Tom Morley

Comment #	Response
MORT-1	The email string is in the public record.
MORT-2	The Applicant has indicated that they would comply with the provisions in the CUP and the EIR has made that assumption in its analysis. The CUP conditions would be made a part of the development agreement and the operator would be held to the conditions therein.
MORT-3	This issue is not related to the DEIR and no additional response is merited.
MORT-4	This issue is not related to the DEIR and no additional response is merited.
MORT-5	Text has been added to section 4.6. This discussion was already included in the DEIR under the International Fire Code and LAC Fire Code, but the reference to the California Fire Code section 5406.3 was added.
MORT-6	Text has been added to section 4.6 to indicate the purpose of these separation distances. The authors are not aware of any code changes being considered.
MORT-7	The authors are not aware of the records of the deliberations on code preparation. The detailed plot plans are not available for the Project at this time. The facility would comply with all of the setbacks except the 100 feet to buildings. A redesign is not apparent that would allow for a 100 foot setback from buildings

	while retaining the setbacks from other equipment. Therefore, the approach to incorporate measures to allow a variance was also addressed. A redesign might be preferred by the Applicant instead of these measures, but a redesign approach was not readily apparent.
MORT-8	Thermal and blast resistance are primary issues. Setback distances are generally shorter than rig heights, so this is not as much a concern. A variance would be issued by the Fire Department under a close consideration of the codes. The EIR has determined that a variance would be feasible given the existing industry practice and technology.
MORT-9	It is not possible to mitigate the classification of the wells as critical wells under the DOGGR definition due to the close proximity of residences and buildings. However, the DOGGR requirements for shutdown devices on critical wells have satisfied by the Applicant's proposal. The well spacing plan requirements of DOGGR are based on bottomhole spacings and are not related to the spacing requirements associated with wellhead locations.
MORT-10	Mitigation measure FP-2a indicates that "The Applicant shall ensure that design and construction comply with applicable codes and standards for equipment spacing," and that, if these cannot be achieved, then additional requirements shall be applied. It therefore requires redesign as the first approach.
MORT-11	The DOGGR codes are related to bottomhole spacings and are not applicable to consolidated directionally drilled wells.
MORT-12	Well spacing plans are designed to protect reservoir dynamics and not for surface health and safety issues of directionally drilled wells. Wells spacing objectives are "To achieve the ultimate economic recovery of oil and gas, it shall be the policy of the Supervisor to give the greatest consideration to the minimum spacing, in acres per well, that can be established based on the geologic geometry of the pool and the area that can be effectively and efficiently drained by a well without economic loss".
MORT-13	The fire code would be codified through the LAC Fire Department Codes and the International Fire Code, which would be applied by the Fire Department. DOGGR would apply their wells spacing requirements to the Project as associated with their subsurface jurisdiction.
MORT-14	Mitigation measure FP-2a requires redesign before the application of additional measures to allow for a code variance.
MORT-15	Critical wells requiring special equipment, which the applicant has proposed. The LAC Codes and fire code define the setbacks. The determination of compliance with DOGGR regulations would be made by the regulating authority (DOGGR) if the Project moves forward and permits are applied for from DOGGR. Text related to the DOGGR requirements has been added to the FEIR. The purpose of the EIR is to provide for public participation and informed decision-making.
MORT-16	Thank you for your comments.

Dency L. Nelson

Comment #	Response
NELD-1	Thank you for your comments.
NELD-2	Issues regarding GHGs are discussed in Section 4.2, Air Quality and GHGs, of the DEIR and the carbon neutral policy is discussed.

Rollie Nichols

Comment #	Response

NICR-1	Section 4.8, Safety and Risk, discusses the Project safety.
NICR-2	Section 4.3 discusses potential impacts of an oil spill to biological resources, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
NICR-3	Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts.
NICR-4	Emissions from the Proposed Project are presented in Section 4.2, Air Quality and GHGs, of the DEIR. Noise impacts from the Proposed Project are presented in Section 4.11.
NICR-5	Thank you for your comments.

Matt Padilla

Comment #	Response
PADM-1	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project. Section 12.0 of the Cost Benefit Analysis includes discussion on the impact of the Proposed Project on the private property values in Hermosa Beach. Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
PADM-2	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

Marci Palla

Comment #	Response
PALM-1	Thank you for your comments.

Robert E Payne

Comment #	Response
PAYR-1	The Proposed Project does not involve the transportation of oil by train tank cars. Emissions from the Proposed Project are presented in Section 4.2, Air Quality and GHGs, of the DEIR. The Applicant has proposed a mostly closed loop system that would direct all vents to a flare to reduce emissions. Some leakage would still occur from leaking valves and components.

Lincoln Personius

Comment #	Response
PERL-1	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
PERL-2	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
PERL-3	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
PERL-4	Most of these issues are not related to the EIR.
PERL-5	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts from the Proposed Project.
PERL-6	Thank you for your comments.

Sam Perrotti

Comment #	Response
PERS-1	A pipe-within-a-pipe type system has advantages in the near term. However, as per bulletins by the California State Fire Marshall, it is not recommended practice due to difficulties with cathodic protection, water intrusion into the annular space and maintenance issues.

Lauren Pizer Mains

Comment #	Response
PML-1	A spill at the Project Site or from the pipeline near to the Project Site could drain into these storm drains at 6th Street and Cypress. This storm drain travels down Valley Drive to Herondo Street, then to the ocean. Text has been added to the FEIR to add valves to these storm drains to help prevent oil from entering the storm drains in the event of a spill.
PML-2	Text has been added to section 2 to describe these additional businesses. The listing of business was not intended to be all inclusive.
PML-3	The photos are referred to as photo simulations throughout section 4.1 in the DEIR. The photos are simulations, depicting the size and relative spacing of equipment and walls. The drilling rig and workover rigs are actual rigs from other drilling sites.
PML-4	Odor masking chemicals are used throughout industry and are effective at reducing odors. Odors levels for H2S are below those levels that would produce health effects.
PML-5	Additional data on sensitive resources were added to the Biological Section, including the presence of important sites for shorebirds, waterfowl, roost sites, grunion, and avian foraging habitat. In 1994, following the recovery of the species' population with the cessation of commercial whaling in the first half of the 20th century, the eastern population of gray whales in the North Pacific was removed from the list of endangered species under the FESA.
PML-6	Chapter 17.28 of the Hermosa Beach Zoning Code details the M-1 Light Manufacturing zone. The Hermosa Beach Zoning Code does not contain separate zone districts for "light" and "heavy" manufacturing; the M-1 Light Manufacturing zone designation is the only manufacturing zone in the City's Zoning code. Section 4.10 of the DEIR provides an evaluation of the Proposed Project's consistency with existing land uses and the City's General Plan, Municipal Code, and Local Coastal Plan.
PML-7	Spacing is a challenge on the site. The Project would be required to comply with the intent of applicable codes and standards, and may require additional measures such as thermal barriers and blast walls. The Applicant has submitted a Parking Plan that is included in Appendix A.
PML-8	The laydown area would be in the large basement of the building located at 601 Cypress, as described in the DEIR. Truck unloading would occur onsite.
PML-9	The Applicant has submitted a Parking Plan that is included in Appendix A. Parking requirements would be detailed as part of the final permitting stage.
PML-10	The Applicant has submitted a Parking Plan that is included in Appendix A. Parking requirements would be detailed as part of the final permitting stage.
PML-11	Weight limits for trucks are allowed to be exceeded for deliveries within the area. Mitigation measures are proposed to minimize the safety impacts to pedestrians.
PML-12	That section of Section 4.1 is quoting the CUP, which does state five wells.
PML-13	Approval of pipeline ROW is generally granted through franchise agreements.

	There has been no indication that agreements might not be reached between the jurisdictions and the Applicant. Full transport of the production in Phase 4 by truck would not be allowed.
PML-14	Undergrounding of utilities provides a visual improvement to the area.
PML-15	The executive summary provides a relatively short version of the conclusions of the EIR.
PML-16	Walls can actually increase contamination levels due to building downwash effects. Building downwash was included in the air quality modeling in Section 4.2.

JD Preletz

Comment #	Response
PREJ-1	See Section 4.8 of the DEIR, Safety, Risk of Upset, and Hazards, for a discussion on the safety and risks of the Proposed Project. The safety and risk of upset analysis addresses upset scenarios that could immediately and adversely affect public safety, such as explosions, fires and releases of flammable or toxic gas. The analysis assesses what upsets could occur, based on the Proposed Project facility design and operations, estimates the frequency of the upsets and assesses what the resulting consequences of the upsets could be. These are then compared to the significance thresholds to determine the level of significance. Safety impacts related to worker safety and OSHA-related requirements are not addressed in this EIR as this EIR addresses only potential impacts to public receptors as per CEQA. Effects are based on historical data, which has been used to define the reference exposure levels that were used in this EIR.

Rick Pruetz

Comment #	Response
PRUR-1	CEQA calls for environmental review of discretionary projects at the earliest meaningful stage, to serve its purposes of public participation and informed decision-making. The detailed design of the facility has not been conducted at this time. However, there is sufficient information available that the feasibility of achieving equipment spacing that satisfies the intent of the codes and standards can be determined. Under CEQA, this is not deferral of mitigation because the performance criteria, the specific codes and the standards that would be applied are well established. Measures, such as fire walls and vessel insulation, are well established practices in industry and could be applied at the Project Site. Unless the codes and standards can be satisfied, then the Project would not be allowed to move forward through the permit process. This is like any building Project that comes forward, and is required to pass codes and standards in the detailed drawings and permit stage. CEQA case law states: "for the kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process, the agency can commit itself to eventually devising [mitigation] measures that will satisfy specific performance criteria articulated at the time of Project approval," and that " a condition requiring compliance with regulations is a common and reasonable mitigation measure" (Oakland Heritage Alliance v. City of Oakland (2011) 195 Cal.App.4th 884, 906). The Project description is adequate in that it provides sufficient information to determine the significance of impacts and to provide information to the public and the decision makers. The EIR also addresses the impacts of mitigation measures in each section with a subsection title "Other Issue Area Mitigation Measure Impacts". Drilling projects require a test phase, where information about the reservoir is determined before all wells are in final design. This is standard practice for an oil exploration Project.
PRUR-2	This EIR acknowledges the requirements established by DOGGR to ensure that proper casing is used to prevent groundwater contamination. There are no groundwater aquifers that contain potable water near the Project Area. Rather, the Project area is located to the west of the salt

	water intrusion reinjection wells as detailed in the Hydrology Section of the EIR. The EIR fully explains the methodology and assessment of impacts and identifies the reasons why each of the significant and unavoidable impacts has been identified. Please see specific responses to each of the commenter's more specific comments, below, as per the CEQA requirements and the City's' duty to respond to comments.
PRUR-3	As stated above, CEQA calls for environmental review of discretionary projects at the earliest meaningful stage, to serve its purposes of public participation and informed decision-making. The detailed design of the facility has not been conducted at this time. However, there is sufficient information available that the feasibility of a facility shutdown system can be assessed without the detailed SAFE charts defining the interactions of each sensor and transducer inter-relationship. This level of detail will be defined if the Project moves to the final stages of permitting. Numerous facilities utilize shut-down systems and they are considered feasible. Shut-down can be initiated for a number of reasons, including releases of materials, failure of pumps, compressors or other equipment, or incorrect gas specifications. The Applicant is not proposing fracking. Stimulation is different than measures, such as acid washing, to clean out the bottom hole and completion arrangements. Please see responses to comments CBD-3 and CBD-4. The Project design features that are included in section 2 of the EIR are added as requirements to the permit when issued. The Project's conditions of approval will be included in the Development Agreement that will be presented to the voters on the ballot. In addition to the mitigation measures of the Final EIR, conditions of approval will include actionable items that are administrative, many of which speak to how the Project is implemented. The EIR cannot include a mitigation measure (or condition of approval) to address fracking, because the EIR's measures can only address potential impacts of the Project as proposed. As stated earlier (and in the EIR) this Project does not propose fracking.
PRUR-4	The cover pictures were selected in cooperation with City staff and accurately depict the Project location and aesthetics. The EIR addresses all aspects of the Project, including pipelines, even if the pipelines are not called out in the Project Location or depicted on the cover.
PRUR-5	The locations of the boreholes associated with the Phase 4 drilling have not been determined at this time and therefore cannot be shown. The Project location is defined as the location of surface facilities. The well bores for the Phase 2 wells are described in the EIR.
PRUR-6	The code compliance of the site plan has been taken into account in the risk analysis primarily by assuming that all spills and releases would encounter an ignition source at the site. Crude oil spills are assumed to ignite 100% of the time. The community has numerous gas pipelines, including a gas main along Herondo Street and propane filling stations at gas stations along PCH, and these would fall into the unacceptable region of the risk analysis if more stringent criteria were established. There are numerous risks already in the community and the classification of the operations risk levels as acceptable means only that the risks during operations would be similar to these existing, accepted risks in the community.
PRUR-7	The Fire Department, through the variance system, will require that the intent and purpose of the code be met, or the facility will not receive a permit. If the intent and purpose of the code can be met, and appropriate fire protection measures, training and personnel are provided, then the fire protection and emergency response is not a significant and unavoidable impact.
PRUR-8	Impact GEO.1 concludes by indicating that seismic related impacts would be significant. However, these significant impacts would be reduced to less than significant with implementation of Mitigation Measures GEO-1a through GEO-1c. Geotechnical reports, such as the site-specific NMG Geotechnical report, do not typically address possibility of loss, injury, or death due to causes other than geotechnical conditions, but provide input to the design and placement of the Project structures, such as the drill rigs, in order to reduce these risks to a less-than-significant level. Please see Section 4.8, Safety, Risk of Upset, and Hazards, with respect to those issues. As indicated in Impact GEO.2, impacts associated with potential Project induced seismicity are considered potentially significant and a Subsidence and Induced Seismicity Monitoring Program would be implemented to determine whether impacts are occurring. Mitigation Measures GEO-2a, -2b, and -2c provide additional measures to supplement the program. In addition, an onshore subsidence and induced seismicity monitoring plan (Geosyntec 2012) and offshore subsidence monitoring plan (Coastal Environments (1998) have been added as an appendix to the EIR, in

	order to provide full disclosure of the monitoring program.
PRUR-9	The Hydrology section is included based on water quality impacts related to a major spill; however, the Water Resources section did not find any impacts to be significant and unavoidable. Text has been added to Impact WR.3 to include chemical wastes anticipated to be disposed in the injection well. The City disagrees that water quality impacts associated with wastewater injection would be significant and unavoidable, for reasons outlined in Impact WR.3. New text has been added from the 2011 EPA report referenced, as well as from a U.S. General Accounting Office report regarding groundwater contamination related to Class II wells. It is acknowledged that the integrity of some Class II injection wells has been compromised historically, potentially resulting in leaks to the subsurface. As a result, Impact WR.3 has been changed from less than significant to potentially significant and mitigation measures have been identified to reduce the impact to less-than-significant. The added mitigation measures provide well known methods of monitoring and preventing ground water contamination from occurring as a result of reinjection.
PRUR-10	The downhole pumps would be physically small (of necessity) and would operate at least 2,600 feet (and as much as 6,000 feet) underground. A conservative estimate of the vibration produced by these small pumps and application of a point (small) source propagation formula for ground-borne vibration (which is used by the Federal Transit Administration and in EIR analysis generally) indicates that by the time the vibration from the downhole pumps reaches the earth's surface it will be at a level of approximately 0.0001 in/sec. This value is well below the threshold of perception and is 1/100th of the significance threshold of 0.01 in/sec for vibration. The language of section 4.11 will be revised so that the Final EIR better addresses well workover noise.
PRUR-11	Text has been modified to indicate that aesthetics would be a significant impact during workovers. However, as workovers would occupy up to 3 months per year, with 9 months generally being rig-free, the impact is shown as both less than significant and significant in the tables.
PRUR-12	Please see responses to comments PRUR-3 through PRUC-11.
PRUR-13	The information in the DEIR regarding well depth was provided by the Applicant for the test wells in its application to the City of Hermosa Beach. As stated on page 2-22 of the DEIR, the wells for the Project have been estimated at 3,000 feet vertical depth and 9,000 horizontal feet length. Detailed information regarding well depth and well paths is typically included in the Project drilling plan, which would be submitted to applicable regulatory agencies should the Project be approved.
PRUR-14	The down-hole pump would be located at least 2,000 feet below ground and would not have impacts at the surface.
PRUR-15	Text discussing the procedures for re-cementing have been added to the FEIR.
PRUR-16	In the discussion of impact AE.1, the DEIR clearly states, under the subtitle "Operations with a Workover Rig," that operations with the workover rig would be a significant impact.
PRUR-17	The SCAQMD threshold for issuing a Notice of Violation for odor releases is receipt by the air district of six or more verified complaints in a year. There is no substantial evidence that significantly more than six events per year would occur, although a specific number cannot be determined at this time. However, even in the case of projects on larger sites, the DEIR preparers are not aware of more than 10-12 events per year. Oil and gas development projects that the DEIR preparers have worked with have generated up to 10-12 complaints per year, although they were on larger sites with more separation distance between facilities and neighbors. However, propensity for odors is a strong function of the type of gas encountered and the manner in which the facility is operated and it is difficult to place an exact number on the nuisance events.
PRUR-18	Mapping shows that the distance from the Project Site to the AES power plant stacks would be about 0.50 mile. Localized impacts are discussed in section 4.2, and are shown to extend only a few blocks, similar to Figures 4.2-5 and 4.2-6 for acute and chronic impacts. Modeling associated with the proposed RBEP indicates that PM localized impacts near the facility would be close to the thresholds. At 0.5 miles, impacts would be less than cumulatively significant. Note that the threshold for cancer is an increased risk of 10 in a million. The one in one million contours are

	shown for reference.
PRUR-19	As indicated in mitigation measures in section 4.6, achieving the intent and purpose, even if the letter of the codes is not achieved, is feasible.
PRUR-20	Methods such as heat shields, insulation and blast walls have been demonstrated in industry to be effective methods for protection from thermal radiation and blasts. Their implementation is entirely feasible. In addition, the Applicant would have to demonstrate that the design and construction of the walls is appropriate to meet the intent of the codes and standards. Please see response to comment PRUR-7.
PRUR-21	During drilling, there would be sound walls 32 feet high. The flare stack would only be 16 feet high. Increasing the height of the flare stack to less than 32 feet would not be visible because of the 32 foot walls. Thermal shields would not be visible. There would not be additional aesthetic impacts from insulating a tank. Text to this effect has been added to section 4.1.
PRUR-22	Measure GEO-1a indicates that the drilling operator shall not reinstitute operations at the Project Site and associated pipelines until it can be determined that all oil field infrastructure is structurally sound, which indicates that any damaged equipment would be repaired prior to start-up of operations. Measure GEO-1b includes seismic design criteria, which would include all equipment utilized on-site, including the drill rigs. GEO-1b also includes measures related to stabilization of the ground surface, which would be required to adequately support the drill rig and other structures in the event of an earthquake. Please see Section 4.8, Safety, Risk of Upset, and Hazards, with respect to equipment failure.
PRUR-23	An onshore and offshore subsidence monitoring plan has been added as appendices to demonstrate the specifics of the monitoring plan. Mitigation GEO-4d outlines the steps that would be taken in the event that subsidence is detected. These plans describe the amount of subsidence that would be considered significant and that warrant corrective action. Following implementation of Mitigation Measure GEO-4d, impacts due to subsidence would be less-than-significant.
PRUR-24	See responses to comments PRUR-23 and PRUR-25.
PRUR-25	Both subsidence and induced seismicity would be simultaneously monitored during operations. Technology has advanced substantially since water injection began in the Wilmington Oil Field. Text has been added indicating that recent subsidence monitoring at the Inglewood Oil Field has demonstrated that subsidence has slowed since monitoring began in 2010, and has rebounded locally also, but not necessarily in proportion to areas of oil production and injection, respectively. (http://www.inglewoodoilfield.com/res/docs/2013%20Fugro_Annual%20Geotech%20Report.pdf)
PRUR-26	Mitigation measure GEO-4e has been added, which states: In the event that subsidence related mitigation induces seismicity, corrective actions related to subsidence shall proceed until baseline surface elevations have been achieved, as subsidence related damage would likely be more pronounced in comparison to damage associated with Project related micro-seismicity. Upon reestablishment of baseline elevations, drilling operations shall cease until a balance between subsidence avoidance and induced seismicity avoidance can be established, as agreed upon by the California Division of Oil, Gas and Geothermal Resources and the City of Hermosa Beach. The potential for water injection induced seismicity as a result of the Project is low. The mitigation seeks to appease a concern that is speculative, based on the history of the area. A plausible solution to this speculative concern has been provided. The speculative nature of the concern does not rise to the level of being significant and unavoidable, based on the plausible mitigation provided.
PRUR-27	As indicated in Impact GEO.2, impacts associated with potential Project induced seismicity are considered potentially significant and a Subsidence and Induced Seismicity Monitoring Program would be implemented to determine whether impacts are occurring. Mitigation Measures GEO-2a, -2b, and -2c provide additional measures to supplement the program. In addition, an onshore subsidence and induced seismicity monitoring plan (Geosyntec 2012) and offshore subsidence monitoring plan (Coastal Environments (1998) have been added as an appendix to the EIR, in order to provide full disclosure of the monitoring program.
PRUR-28	Subsidence thresholds have been established in the subsidence monitoring plans referenced in comment response PRUR-27. The text “as much as possible” has been removed, because it is not

	applicable. Specific subsidence thresholds are established in the onshore and offshore subsidence monitoring plans, which have been added as appendices.
PRUR-29	Text has been added to impact SR.1 to clarify that impacts during operations without drilling would be less than significant.
PRUR-30	These same significance thresholds for risk have been applied both to offshore facilities and to onshore facilities in urban areas within Santa Barbara County. Carpinteria and Ellwood are two densely populated areas with oil and gas facilities that have utilized these thresholds, and they have been effective tools in understanding risk and acceptability as well as designing effective risk reduction measures. The City of Hermosa Beach has numerous gas pipelines, including a gas main along Herondo Street, and gas pipelines in almost every street, propane filling stations at gas stations along PCH, gasoline in every car along the streets, electricity lines overhead and within homes, and a 500 gallon propane tank at the current City Maintenance Yard. These sources of risk would all fall into the unacceptable region of the risk analysis if the proposed criteria were used, and as a result every house remodel would then be assumed to have unacceptable risks associated with using electricity or propane BBQs or natural gas and impacts would be significant and unavoidable (which is not the case). An assessment of risk must be based on the realistic understanding that we encounter risk in our everyday actions. There are numerous risks already in the community and the classification of the operations (without drilling) risk levels as acceptable means only that the risks during operations would be similar to these existing, accepted risks in the community.
PRUR-31	The operations of an oil and gas plant are complex and they require engineering to assess the risks associated with these facilities. The report has been simplified to the extent possible, but the actual calculations and analysis presented in the Appendix cannot and should not be simplified. The probability that all scenarios occur simultaneously is far below any threshold that would be considered unacceptable, equivalent to being hit by lighting, a meteor and an aircraft at the same time. An initiating event, such as a very large earthquake, could cause equipment damage and this has been included in the release scenario frequency. See PRUR-30 for a discussion of the thresholds.
PRUR-32	The calculations are not statistically significant and the EIR does not state otherwise. There are uncertainties in all calculations and the risk estimates are just that: estimates. The EIR clearly describes these uncertainties.
PRUR-33	The constrained site configuration has been incorporated into the fault trees and the risk calculations through the increased probability of ignition.
PRUR-34	A worst case spill would be too large to capture with a street based separator system and the recommendation is therefore not feasible. A street based separator system could capture small to medium sized spills, and this mitigation is included in the DEIR.
PRUR-35	The EIR does the job of full disclosure by pointing out the potential incompatibility; however, CEQA requires the EIR to confine its impact assessment to physical effects. The discussion in the Land Use section does so, by citing physical effects related to air quality, noise and the visual environment. However, it does not address highly subjective and abstract qualities such as community character, except for those aspects that are well-grounded in physical attributes affected by the Project. While the EIR cannot address such subjective issues, the City has facilitated discussion about the importance of community atmosphere and coastal resources through the Community Dialogue process. It should also be noted that there are many beach communities that have coexisted with oil and gas development in California such as Huntington Beach, Long Beach, Santa Barbara and Carpinteria, to name a few. The ultimate decision on whether the Project moves forward will be left to the voters.
PRUR-36	The downhole pumps would be physically small (of necessity) and would operate at least 2,600 feet (and as much as 6,000 feet) underground. A conservative estimate of the vibration produced by these small pumps and application of a point (small) source propagation formula for ground-borne vibration (which is used by the Federal Transit Administration and in EIR analysis generally) indicates that by the time the vibration from the downhole pumps reaches the earth's surface it will be at a level of approximately 0.0001 in/sec. This value is well below the threshold of perception and is 1/100th of the significance threshold of 0.01 in/sec for vibration.
PRUR-37	Well-workovers would have less noise impact than drilling because they do not require much of

	the noisy equipment associated with drilling and would occur only during the daytime (as opposed to drilling which would occur at night). The language of section 4.11 will be revised so that the final EIR better addresses this aspect of the Proposed Project.
PRUR-38	The text in question is not discussing the groundwater with respect to water quality, but rather is establishing baseline conditions regarding water supply. Beneficial uses of groundwater are discussed in Section 4.14.1.4, Groundwater, and Section 4.9, Hydrology. The groundwater aquifers surrounding the Project Site are described in Section 4.9 and are not expected to be affected as a result of the Project.
PRUR-39	The language identified in the comment has been deleted and additional text has been added to describe beneficial uses of groundwater in the Project area.
PRUR-40	Impact WR.3 indicates that the Project Site is located along the westerly edge of the West Coast Basin. Three major fresh water aquifers comprise the West Coast Basin: the 200-Foot Sand (Gage Aquifer), the Silverado Aquifer, and the Lower San Pedro/Pico Aquifer. Groundwater depth in these predominantly confined aquifers reaches more than 1,500 feet in the West Coast Basin, although water production wells generally are not this deep. The injection wells would pass through these fresh water deposits, creating potential water quality impacts as a result of well leakage and/or inadvertent migration of wastewater from the point of injection upward through the formation, as a result of frac-outs, which are uncontrolled releases of produced water from the formation. New text has been added from the 2011 EPA report referenced in these comments, as well as from a U.S. General Accounting Office report regarding groundwater contamination related to Class II wells. It is acknowledged that the integrity of some Class II injection wells has been compromised historically, potentially resulting in leaks to the subsurface. As a result, Impact WR.3 has been changed from less than significant to potentially significant and mitigation measures have been imposed accordingly as follows: WR-3a The Applicant shall complete a site-specific Area of Review/Zone of Endangering Influence analysis, per Division of Oil, Gas, and Geothermal Resources requirements, to determine if oil and gas wells are present that might serve as conduits for injected liquids to migrate upward to underground sources of drinking water. In the event that such wells are present, those wells shall be plugged and abandoned such that underground sources of drinking water (i.e., less than 10,000 mg/L total dissolved solids) are protected. Plugging and abandonment of those wells shall include zonal isolation plugs outside all casings and shall be completed per current Division of Oil, Gas, and Geothermal Resources standards. WR-3b The Applicant shall confine injected fluids into the intended zone of injection in order to adequately protect underground sources of drinking water. Injection well cement shall be placed at the base of all underground sources of drinking water, and not just at the base of fresh water, to protect water with total dissolved solids content ranging from 3,000 mg/L to 10,000 mg/L. WR-3c The Applicant shall complete step-rate tests, using bottom-hole and surface pressure gauges, such that maximum allowable surface injection pressures are set at a maximum of 95 percent of the fracture pressure of the formation being injected. WR-3d The Applicant shall ensure that the hydrostatic pressure in overlying West Coast Basin aquifers is not exceeded during injection over the active life of the disposal wells. To ensure that this does not occur, the static reservoir pressure shall be monitored on a periodic basis, per Division of Oil, Gas, and Geothermal Resources requirements, and injection into the receiving zone shall cease if and when the hydrostatic pressure is exceeded. WR-3e The Applicant shall meet with Division of Oil, Gas, and Geothermal Resources staff annually to review the status of the waste water injection wells. Any deficiencies identified by Division of Oil, Gas, and Geothermal Resources staff shall be immediately rectified by the Applicant.
PRUR-41	Additional text has been added referencing Table 2-11, Phase 4 Drilling Chemicals, which would be disposed in the injection wells.
PRUR-42	See response to comment PRUR-41.
PRUR-43	Class II injection wells are designed to safely dispose of the accompanying wastes listed. Text has been added from the 2011 EPA report in response to the comment. Please see response to

	comment PRUR-9 above.
PRUR-44	Text has been added from the 2011 EPA report in response to the comment and how it may affect the issues brought up in the comment.
PRUR-45	The produced water will be reinjected back into the reservoir it came from which should hold the volumes of water that will be produced as part of the Project. This is a standard and common oil field practice.
PRUR-46	Text has been added with respect to the 2011 EPA report and how it may affect the issues brought up in the comment.
PRUR-47	The produced water would be put back into the same reservoir that it came from, with the only difference that it will have the oil removed. The produced water is not potable water, nor does it come from an aquifer, but rather it is water entrained with the oil. SRB is tested because the high incidence of Sulphate Reducing Bacteria could produce the highly toxic and potentially corrosive Hydrogen Sulfide.
PRUR-48	New text has been added from the 2011 EPA report referenced in these comments, as well as from a U.S. General Accounting Office report regarding groundwater contamination related to Class II wells. It is acknowledged that the integrity of some Class II injection wells has been compromised historically, potentially resulting in leaks to the subsurface. As a result, Impact WR.3 has been changed from less than significant to potentially significant and mitigation measures have been imposed accordingly.
PRUR-49	The EIR presents a number of alternatives to the Project as required by CEQA. However, the Project before the decision-makers (the voters) will be the E&B Proposed Project, as described in the EIR's Project Description. See response to comment PRUR-40 above.

Allison Reynolds

Comment #	Response
REYA-1	The commenter is correct in that many accidents in the industrial work place are attributed to human error as opposed to design or equipment failure. The DEIR recommends mitigation measures to help reduce human error and reinforce the environmental and safety requirements the Proposed Project would be subject to. These include mitigation measure EM-1, the implementation and administration of an environmental monitoring program, including an environmental monitor, to ensure compliance with each Agency's environmental Conditions of Approval. One component of the environmental monitor is the confirmation of the employee training on the environmental mitigation measures. The DEIR also requires that the truck drivers are trained in first response to a spill and have spill equipment on the truck.
REYA-2	Emissions from the Proposed Project are presented in Section 4.2, Air Quality and GHGs, of the DEIR. Mitigation measure AQ-6 requires that Applicant provide credit for all GHG emissions above the 10,000 MTCO2e per year significant threshold. Given that the Project mitigated GHG emissions would be below the significance level, the Project's contribution to global climate change can also be considered less than significant. Detailed emission calculations for the Proposed Project are included in Appendix B of the DEIR.
REYA-3	Section 4.2 has a subsection on impacts of GHG emissions and text has been added to indicate that ocean acidification would also be a potential impact.
REYA-4	Section 4.9, Hydrology, recommends mitigation measures to address the potential of the Proposed Project to impact the ocean from a water or oil spill. Mitigation measures HWQ-2a through HWQ-2g include equipment maintenance and secondary containment, the requirements of the California Stormwater Quality Association Best Management Practice Handbook, an Oil Spill Contingency Plan, and spill response training and equipment. Mitigation measure HWQ-2h requires the Applicant to fund and install oil/grit separators or oil/water separator along Herondo Street and downstream of Valley Drive to capture small to medium sized spills before they reach the ocean. In section 4.6,

	Fire Protection and Emergency Response, a mitigation measure has been added to install valves on the storm drains so they can be closed, preventing a spill from entering the storm drains.
REYA-5	The Proposed Project infrastructure would be subject to the building code and regulation requirements of the California Building Code, the Alquist-Priolo Earthquake Fault Zoning Act, the California Seismic Hazards Mapping Act, the California Coastal Act, the California Division of Oil, Gas, and Geothermal Resources, and the Seismic Safety Element of the City of Hermosa Beach General Plan. These codes and regulations would require the Proposed Project to be built with the latest in technology to withstand seismic events. In addition, section 4.8, Safety and Risk, requires additional seismic review to the standards developed as part of the CalARP program.
REYA-6	Section 4.14.4.3 of the DEIR includes an analysis of the water requirements of the Proposed Project and a discussion on the Water Supply Assessment process of Senate Bill (SB) 610. The analysis concludes that based on annual water use requirements, the Proposed Project would not have significant impact on water resources. Further, the annual water use for the Proposed Project is significantly less than the threshold whereby a Water Supply Assessment would be required. Note that the Project would utilize primarily reclaimed water.

Barbara Sabo

Comment #	Response
SABB-1	Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts. Impact TR-1 address potential impacts to pedestrians and mitigation measures to reduce those impacts, including additional crossing guards and converting Valley Drive to one-way to increase separation distances.
SABB-2	The Proposed Project involves directional drilling technology which allows for drilling into a reservoir at an angle or where vertical access is not feasible. Page 2-22 of the DEIR estimates the drill path lengths at 3,000 feet vertical depth and 9,000 horizontal feet length. The drill rig would be tall and visible. See section 4.1 for view simulations.
SABB-3	The Applicant would be responsible for cleanup of the Proposed Project site. Section 2.47 of the DEIR discusses the Project life and decommissioning. At the end of the Proposed Oil Project a separate permit process and CEQA environmental review would be required to evaluate decommissioning of the entire Project Site.
SABB-4	Section 4.11.4.3 of the DEIR is the Vibration Impact Analysis for the Proposed Project. The analysis indicates for Phases 1 and 3 of the Project, vibration levels at the closest use (200 feet from the Project site) would be below the significance level. Vibration levels for Phases 2 and 4 of the Project were estimated to be at lower levels than what was calculated for Phases 1 and 3. The analysis further estimates that vibration levels along the property line may exceed the significance level occasionally due to pipe handling or other intermittent activities, however, vibration levels at residential uses near the Project site are not expected to exceed the significance level. The development agreement that would be agreed to as part of the permit process would include specific insurance, bonding and indemnification requirements.
SABB-5	The development agreement that would be agreed to as part of the permit process would include specific insurance, bonding and indemnification requirements. This may also include a property damage permit condition.

Lisa Santora

Comment #	Response
SANL-1	The Health Impact Assessment was prepared under a separate arrangement than the EIR and by a separate consulting firm, and it not a part of the EIR and CEQA process.
SANL-2	Standards related to toxic pollutant concentrations were used in the EIR. See section 4.2, Air Quality and GHG.
SANL-3	Oil and gas production in heavily urbanized areas requires additional measures to reduce potential impacts.
SANL-4	An EIR is required to comply with the thresholds generally adopted by jurisdictions, such as noise standards and air quality standards.
SANL-5	Health impacts were assessed in the EIR through the use of dispersion models and air quality guidelines and techniques well established by CARB, CAPCOA and the SCAQMD. The application of these methodologies requires more of a computer science, engineering and meteorological understanding that a specific medical expertise.
SANL-6	The SCAQMD publishes CEQA thresholds and those were used in this EIR.
SANL-7	The air quality along the coastal region between Palo Verdes and Santa Monica does not vary substantially as all areas are subject to the marine influence. If anything, the area around LAX has lower air quality due to the close proximity to the airport and the Chevron Refinery.
SANL-8	Section 4.2, Air Quality and GHG, show the areas where nonattainment occurs and it is primarily inland, not along the coastal areas.
SANL-9	The lookup tables generated by the SCAQMD were produced using area sources and represent a worst case emissions source. The microturbines and flare are point sources, where the exhaust has velocity and temperature (leading to buoyancy), which reduces ground level pollutant concentrations. The SCAQMD recommends modeling of these types of sources to accurately predict localized impacts.
SANL-10	The thresholds used in the EIR are based primarily on incremental increases, such as an allowed increase in cancer risk, etc. The current number of asthma cases does not play directly in to the thresholds and was therefore not addressed. The current health of the communities in the South Coast was used to establish the thresholds used by the SCAQMD, which were used in this analysis.
SANL-11	The thresholds used in the EIR are based primarily on incremental increases, such as an allowed increase in cancer risk, etc. The current number of asthma cases does not play directly in to the thresholds and was therefore not addressed. The current health of the communities in the South Coast was used to establish the thresholds used by the SCAQMD, which were used in this analysis.
SANL-12	The EIR, in section 4.2, discusses the current high levels of pollutants in the area, such as the MATES study demonstrating that current cancer risk is above 680 per million. The MATES III study also estimated that about 94% of the risk is attributed to emissions associated with mobile sources, and about 6% of the risk is attributed to toxics emitted from stationary sources.
SANL-13	The EIR examined the impact of air emissions on public health through the use of the SCAQMD thresholds.
SANL-14	The EIR examined the impact of air emissions on public health through the use of the SCAQMD thresholds.
SANL-15	With mitigation, by limiting the diesel exhaust particulates, the Proposed Project would produce a less than significant impact. The Project proposes the use of electric drilling equipment and, with mitigation, the use of an electric workover (or very low emission) rig.

Nick Scandura

Comment #	Response

Comment #	Response
SCAN-1	Thank you for your comments.
SCAN-2	Section 4.2, Air Quality and GHG, addresses pollution and air quality impacts.
SCAN-3	The noise impact of the construction phases of the Project (Phases 1 and 3) is discussed in section 4.13 and truck traffic associated with construction activity at the site is addressed in detail in section 4.11 of the DEIR. The analysis concludes that construction noise impact from the site would be "significant and unavoidable". This classification (Class I) is the strongest description of adverse impact available to us under CEQA and certainly does not downplay or "overlook" the noise impact of construction.
SCAN-4	Section 4.7, Geological Resources-Soils discusses the Proposed Project and the potential for earthquakes and other geotechnical issues. Impact GEO-4 addresses the potential for subsidence from oil and gas withdrawal and mitigation measures GEO-4a and GEO-4b recommend measures to reduce the potential of subsidence to a less than significant level.
SCAN-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

Jason Schwartz

Comment #	Response
SCHJ-1	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
SCHJ-2	The Proposed Project does not proposed the use of hydraulic fracturing technology. Section 4.3 discusses potential impacts of an oil spill to biological resources, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
SCHJ-3	Emissions from the Proposed Project are presented in Section 4.2, Air Quality and GHGs, of the DEIR.
SCHJ-4	Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism. Section 4.10 of the DEIR acknowledges the fact that the potential of an oil spill is a Class I impact, significant and unavoidable and would have the potential to impact recreational resources. The Proposed Project does not involve the use of an offshore oil platform, the drill rig and associated equipment would be located onshore at the Proposed Project site at 555 6th Street.
SCHJ-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis
SCHJ-6	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
SCHJ-7	Thank you for your comments.

Quin Severo

Comment #	Response
SEVQ-1	Air pollutant emissions from the Proposed Project are presented in Section 4.2, Air Quality and GHGs, of the DEIR.
SEVQ-2	The Applicant proposes the development of an onshore drilling and production facility site that would utilize directional drilling of 34 wells (30 oil, 4 four water injection) to access the oil and gas reserves. The wells would be installed with a single drilling rig.

Comment #	Response
SEVQ-3	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project. Section 4.2 addresses odors, section 4.11 addresses noise and section 4.1 address aesthetics.
SEVQ-4	Construction activities and schedule are included in Section 2.0, Project Description, of the DEIR. Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts.
SEVQ-5	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project. Section
SEVQ-6	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis
SEVQ-7	Thank you for your comments.

Howard Simon

Comment #	Response
SIMH-1	The Applicant would be required to monitor streets and repair them if necessary, at their expense. The Fire Department training and additional FTE would be paid for by the Applicant. One additional FTE for a small facility would be sufficient to provide oversight of codes and audits, etc. Implementation of all mitigation measures would most likely require additional resources, paid for by the Applicant, particularly during the first years of the Project. The HIA was prepared under a different contract than the EIR and is not part of the CEQA process. Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis. The development agreement would include insurance, bonding and indemnification requirements.

Katie Smythe

Comment #	Response
SMYK-1	Thank you for your comments.
SMYK-2	Section 4.2, Air Quality and GHG, addresses pollution and air quality impacts including the impact of pollutants. Sections 4.8, Safety and Risk, and section 4.2, Biological resources, discuss the frequency and impacts of oil spills and gas releases. Section 4.1 of the DEIR presents a view shed analysis of the Proposed Project with 20 Key Observation Points (KOPs) in the City. Section 4.1 also provides an analysis of the impacts of the Proposed Project to the character and quality of the existing site and its surroundings. Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
SMYK-3	Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
SMYK-4	The DEIR analyzes the noise produced by the Project and section 4.11 includes a detailed analysis of the noise impact of the various Project phases. Information on the financial issues associated with the Proposed Project are detailed in the Cost Benefit Analysis
SMYK-5	Section 4.2, Air Quality and GHG, addresses pollution and air quality impacts. Sections 4.8, Safety and Risk, and section 4.2, Biological resources, discuss the frequency and impacts of oil spills and gas releases.

Kamilah Sonko

Comment #	Response
SONK-1	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project. Section 4.3 of the DEIR addresses the potential impacts of an oil spill on biological resources and acknowledges the fact that the potential of an oil spill is a Class I impact, significant and unavoidable.
SONK-2	Emissions and odors from the Proposed Project are presented in Section 4.2, Air Quality and GHGs, of the DEIR.
SONK-3	Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism and section 4.1 analyzes the effects of the Project on Aesthetics.
SONK-4	Thank you for your comments.

Brad Sorensen

Comment #	Response
SORB-1	Thank you for your comments.
SORB-2	Thank you for your comments.
SORB-3	Thank you for your comments.
SORB-4	CEQA requires not that all plans be completed and finalized, but that the feasibility of the mitigation and the plan can be determined and that performance criteria be established. Emergency response plans to oil and gas exploration projects are common in Los Angeles, other fire departments have hazmat units capable of responding to an oil well fire or an oil spill, and these capabilities can be brought to this Project through increased training or expanded mutual air agreements. The feasibility of developing a detailed emergency response plan is not in doubt and it is therefore acceptable under CEQA to make these conclusions.
SORB-5	The oil company would be limited by the extent of the mineral leases.
SORB-6	Please refer to response to comment SORB-4

Elisabeth Spielvogel

Comment #	Response
SPIE-1	Thank you for your comments.
SPIE-2	Thank you for your comments.
SPIE-3	Sections 4.8, Safety and Risk, and section 4.2, Biological resources, discuss the frequency and impacts of oil spills and gas releases.
SPIE-4	Thank you for your comments.
SPIE-5	Emissions from the Proposed Project are presented in Section 4.2, Air Quality and GHGs, of the DEIR.
SPIE-6	The evaluation of aesthetics and visual resources is subjective and dependent on many variables including the distance of the object from the viewer. Section 4.1 of the DEIR presents a view shed analysis of the Proposed Project with 20 Key Observation Points (KOPs) in the City. Section 4.1 also provides an analysis of the impacts of the Proposed Project to the character and quality of the existing site and its surroundings. Section 4.10 of the DEIR provides an evaluation of the consistency of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
SPIE-7	Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts.

Comment #	Response
SPIE-8	The DEIR analyzes noise produced by the Project and section 4.11 includes a detailed analysis of the noise impact of the various Project phases including construction (Phases 1 and 3) and drilling (Phases 2 and 4).
SPIE-9	See Section 2.0, Project Description, for the Proposed Project schedule.
SPIE-10	Section 4.7, Geological Resources-Soils discusses the Proposed Project and the potential for earthquakes and other geotechnical issues. Impact GEO-4 addresses the potential for subsidence from oil and gas withdrawal and mitigation measures GEO-4a and GEO-4b recommend measures to reduce the potential of subsidence to a less than significant level.
SPIE-11	Thank you for your comments.
SPIE-12	See Section 2.0, Project Description, for the Proposed Project schedule. Drilling would be completed within 30 months of Phase 4, and might occur up to 30 days per year thereafter. Workovers, with a 110 foot rig, could occur up to 90 days per year.
SPIE-13	Section 4.8, Safety and Risk, discusses historical spills.
SPIE-14	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
SPIE-15	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project.

Lael Stabler

Comment #	Response
STAL-1	The baseline traffic counts were taken along Valley Drive Tuesday through Thursday, July 9-11, 2013. This includes the peak summer months and incorporates traffic mid-week, when the peak construction traffic associated with the Proposed Project would be occurring.
STAL-2	The DEIR concludes that truck traffic outside of school hours would be a significant impact under impact TR.1. Mitigation, including limiting truck hours, adding crossing guards and increasing separation between pedestrians and trucks would reduce the impacts to less than significant.
STAL-3	Impacts on PCH/Herondo Street are assessed in the report under intersection number 7.
STAL-4	Pier and Ardmore Avenues can accommodate a truck of up to 65 feet in length. This is why the mitigation measure was set at those values, in addition to being a CalTrans limit.

E.J. Stemig

Comment #	Response
STEE-1	The Proposed Project does not involve the use of hydraulic fracturing technology and it has not been addressed as part of the CEQA process. If fracking becomes an issue, a new CEQA analysis and additional approvals would be required.
STEE-2	Section 4.7, Geological Resources-Soils discusses the Proposed Project and the potential for earthquakes and other geotechnical issues. Impact GEO-4 addresses the potential for subsidence from oil and gas withdrawal and mitigation measures GEO-4a and GEO-4b recommend measures to reduce the potential of subsidence to a less than significant level.
STEE-3	The HIA was prepared under a different contract than the EIR and is not part of the CEQA process. The close proximity of the Proposed Project to populated areas is discussed in section 4.8, Safety and Risk, and 4.2, Air Quality related to odors.
STEE-4	The Health Impact Assessment was prepared under a different contract than the

Comment #	Response
	EIR and is not part of the CEQA process. Section 4.2, Air Quality and GHG, addresses pollution and air quality impacts.
STEE-5	The Proposed Project involves the use of tanker trucks to transport oil on a short term, temporary basis during Phase 2 to transport oil from the test phase. Should the Proposed Project go forward with production, oil would be required to be transported via pipeline and the pipeline would be constructed in Phase 3.
STEE-6	The option to change the one-way status of south Valley Drive to two-way was added to the mitigation measures in Impact TR.1.
STEE-7	Noise modeling and the proposed design of the new maintenance yard indicate that, during operations, the impacts would be less than significant. The height of the new yard would be comparable to the existing storage facility
STEE-8	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis
STEE-9	The development agreement would include insurance, bonding and indemnification requirements.
STEE-10	Thank you for your comments.

Ella Swanberg

Comment #	Response
SWAE-1	Thank you for your comments.
SWAE-2	Section 4.3 discusses potential impacts of an oil spill to biological resources, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources. Emissions from the Proposed Project are presented in Section 4.2, Air Quality and GHGs, of the DEIR.
SWAE-3	The Project would be subject to all applicable local, County, State and Federal laws and regulations. The development agreement would include insurance, bonding and indemnification requirements.
SWAE-4	Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts. Impact TR-1 address potential impacts to pedestrians and mitigation measures to reduce those impacts.
SWAE-5	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project. Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

William Victor

Comment #	Response
VICW-1	Sections 4.8, Safety and Risk, and section 4.2, Biological resources, discuss the frequency and impacts of oil spills and gas releases.
VICW-2	Sections 4.8, Safety and Risk, and section 4.2, Biological resources, discuss the frequency and impacts of oil spills and gas releases.
VICW-3	Mitigation measures have been added to increase the capabilities of dispatch and inspection associated with fire response. Please see section 4.6, Fire Protection and Emergency Response.
VICW-4	E&B is the Applicant for the Project. Section 4.8, Safety and Risk, describes the historical spills.
VICW-5	Specific personnel names involved in the historical spills were not available.
VICW-6	Specific personnel names involved in the historical spills were not available.
VICW-7	The Project is still in the early stages and contractors would not have been

Comment #	Response
	selected at this time.
VICW-8	Mitigation measures require additional resources to address spills, including spill response by the Applicant and the local Fire Department.
VICW-9	Construction activities, particularly the pipeline construction, would also affect Redondo Beach and Torrance and those jurisdictions have been included in the EIR.
VICW-10	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis
VICW-11	Text defining the No Project Alternative as the environmentally superior alternative has been added to the FEIR.
VICW-12	Text defining the No Project Alternative as the environmentally superior alternative has been added to the FEIR.
VICW-13	Public meetings have been held and are planned for the EIR process.

Elliott Walters

Comment #	Response
WALE-1	Thank you for your comments.
WALE-2	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis
WALE-3	Comment noted, Section 4.1 of the DEIR presents a view shed analysis of the Proposed Project with 20 Key Observation Points (KOPs) in the City. Section 4.1 also provides an analysis of the impacts of the Proposed Project to the character and quality of the existing site and its surroundings.
WALE-4	Section 4.3 discusses potential impacts of an oil spill to biological resources, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
WALE-5	Thank you for your comments.

Declan Wright

Comment #	Response
WRID-1	Thank you for your comments.
WRID-2	The DEIR address the potential impacts of an oil spill and acknowledges the fact that the potential of an oil spill is a Class I impact, significant and unavoidable. Section 4.3 discusses potential impacts to biological resources, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
WRID-3	Section 4.3 discusses potential impacts of an oil spill to biological resources, and acknowledges the fact that the potential of an oil spill is a Class I impact, significant and unavoidable. Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
WRID-4	Section 4.10 of the DEIR provides an evaluation of the potential consistency of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism. In addition, Section 13.2 of the Cost Benefit Analysis provides a discussion of the potential impact of the Proposed Project to tourism. Sections 4.3, 4.9, and 4.14 provide additional analysis on the potential impacts of an oil spill.

Comment #	Response
WRID-5	Section 4.0, Environmental Impact Analysis, addresses the potential impacts and recommends mitigation to reduce those impacts form the Proposed Project. Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.

Cindy Zhou

Comment #	Response
ZHOC-1	Thank you for your comments.
ZHOC-2	Section 12.0 of the Cost Benefit Analysis includes discussion on the impact of the Proposed Project on the private property values in Hermosa Beach. Section 4.10 of the DEIR provides an evaluation of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
ZHOC-3	Section 4.10 of the DEIR provides an evaluation of the consistency of the Proposed Project with the City's Land Use Policies including City goals to preserve the small town beach atmosphere and promote tourism.
ZHOC-4	The DEIR address the potential impacts of an oil spill and acknowledges the fact that the potential of an oil spill is a Class I impact, significant and unavoidable. Section 4.3 discusses potential impacts to biological resources, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
ZHOC-5	Section 4.7, Geological Resources-Soils discusses the Proposed Project and the potential for earthquakes and other geotechnical issues. Impact GEO-4 addresses the potential for subsidence from oil and gas withdrawal and mitigation measures GEO-4a and GEO-4b recommend measures to reduce the potential of subsidence to a less than significant level.
ZHOC-6	Section 4.2, Air Quality and GHG, addresses pollution, air quality impacts and public health.
ZHOC-7	The Project would be subject to all applicable local, County, State and Federal laws and regulations. The exemption in the Federal Energy Policy Safe Drinking Water Act (SDWA) Act of 2005, often known as the Halliburton Loophole, applies to the underground injection of natural gas for purposes of storage and the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities. The Proposed Project does not involve the underground storage of natural gas or hydraulic fracturing technology.
ZHOC-8	Section 4.13, Transportation and Traffic, provides the potential impacts and mitigation for traffic impacts. Impact TR-1 addresses potential impacts to pedestrians and mitigation measures to reduce those impacts.
ZHOC-9	Thank you for your comments.

Mason Zisette

Comment #	Response
ZISM-1	The Proposed Project does not involve the use of oil tankers or other offshore vessels. Section 4.3 discusses potential impacts of an oil spill to biological resources, Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
ZISM-2	Section 4.3 discusses potential impacts of an oil spill to biological resources,

Comment #	Response
	Section 4.9 provides the potential impacts to water quality and groundwater, and Section 4.14 presents potential Project impacts to the ocean. Section 4.10 of the DEIR notes an oil spill would have the potential to impact recreational resources.
ZISM-3	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis.
ZISM-4	Section 4.2, Air Quality and GHG, addresses pollution and air quality impacts.
ZISM-5	Information on the financial issues associated with the Proposed Project is detailed in the Cost Benefit Analysis. Thank you for your comments.

Appendix Q

Public Meetings Comments

ADJOURNED MEETING

PLANNING COMMISSION MEETING

CITY OF HERMOSA BEACH

WEDNESDAY, APRIL 2, 2014

HERMOSA BEACH, CALIFORNIA

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REPORTED BY: LYN CORRIN AAKER, CSR NO. 6228

FILE NO. A801972

Adjourned Meeting, Planning Commission Meeting taken at City Hall Council Chambers, 1315 Valley Drive, Hermosa Beach, California 90254, commencing on Wednesday, April 2, 2014, at 6:35 p.m., before Lyn Corrin Aaker, CSR #6228.

CHAIRMAN HOFFMAN: Good evening. I'd like to welcome everyone to a special adjourned meeting of the Planning Commission of the City of Hermosa Beach. This is April 2nd, 2014. I wonder if you would stand to join us in the Pledge of Allegiance led by our former mayor and councilman, J.R. Reviczky.

(Pledge of Allegiance recited.)

CHAIRMAN HOFFMAN: Thank you, J.R. roll call, please. Roll call, please.

MR. KEN ROBERTSON: Commissioner Perrotti?

COMMISSIONER PERROTTI: Here.

MR. KEN ROBERTSON: Commissioner Pizer?

COMMISSIONER PIZER: Here.

MR. KEN ROBERTSON: Commissioner Allen?

COMMISSIONER ALLEN: Here.

MR. KEN ROBERTSON: Commissioner Flaherty?

COMMISSIONER FLAHERTY: Here.

MR. KEN ROBERTSON: And Chairman Hoffman?

CHAIRMAN HOFFMAN: Here.

MR. KEN ROBERTSON: All present.

CHAIRMAN HOFFMAN: Thank you, Mr. Robertson. I'd like to welcome everyone and take just a minute before we get started. This really is about you this evening, and the Commission is really here to hear your comments. Why we are here tonight so everyone is very clear, this is a

1 sort of required part of the CEQA, the California
2 Environmental Quality Act, policy for reviewing and
3 ultimately certifying an environmental impact report
4 associated, obviously, with the proposed oil drilling
5 project in our city. And what we're here for this
6 evening -- we are well down the road, and I think you are
7 all of aware of this -- we are looking at the draft
8 environmental impact report.
9 The draft report, as I think most of you are
10 aware at this stage of the process, is essentially a
11 completed document except that it needs now to have your
12 comments, that is to have public comments on it. And
13 when the public comment period ends, which will end on
14 April 14th, all of those comments will then go back to
15 our consultants that prepared the report. They will
16 incorporate those with an appropriate response from both
17 them and from their experts and from E&B as needed.
18 That will go into and then we will get back to
19 them ultimately the final environmental impact report.
20 The Planning Commission will have a role in reviewing that
21 report, certifying or recommending to the Council that it
22 be certified as being compliant with CEQA requirements,
23 and then at that point the final EIR will become official.
24 At this stage, though, I think most of you have
25 had a chance to look at it, and most of the information

and so forth that is in there is considered in a sense to be an accurate factual statement. So that's where we are.

What it's not tonight, so everyone is clear, it's not another presentation about the report. We've had two of those community workshops. I think several of you came over to the community center. We've had an open house. We had an informational meeting in front of the Planning Commission, so we're done with that part of sort of the presentation of the EIR. At this point we're really looking for your responses to it, your questions, your comments on basically the adequacy of the report.

We are not going to have any formal presentation tonight. It's, quite frankly, not the time for you to debate the merits of the project. It's really about the EIR. Okay? So what we're looking for is what's missing in that document or what questions remain about this project that you don't feel were adequately addressed in the project. Those are all the things that need to be incorporated into what will become the final EIR.

We are not going to talk about the health impact assessment or the health impact report that was prepared by the city. It's not part of the CEQA process. That was an additional bit of research that the city wanted to do. The health impact assessment that was issued, the draft version of that has been recalled or has now come back for

1 revisions. We anticipate probably in a month or so that
2 the final health impact assessment will be made available
3 again. The one that you received, there are some
4 substantive areas that are going to be revised, so I
5 wouldn't rely -- or as you are reviewing for this I'd kind
6 of set that aside and wait until the revised version of
7 that is out.
8 The economic impact report is still on the table
9 and is available at the city. You can go to the city
10 website to review that. You can come to the Community
11 Development Department here and get a copy of that.
12 That's still on the table and it still stands as an
13 additional bit of information for all of us as we review
14 and prepare for this report.
15 All right. The protocol tonight -- let me make
16 one more comment here, really the most important in some
17 ways. We are doing this tonight so that the Planning
18 Commission and all of us members of the public, including
19 people who will be watching this on television, have an
20 opportunity to hear what all of us collectively, the
21 people that are ultimately going to make the decision on
22 this, for all of us to hear what are the questions, what
23 are the comments, what are the areas that we feel there
24 are omissions or weaknesses or additional information is
25 needed in the EIR.

But they can also be submitted -- your comments can also be submitted in writing, and I, frankly, would recommend everyone, even if you speak tonight -- it's being recorded, by the way. You can see we have a court reporter, so everything that's said tonight is, in fact, going to be reported and will be passed on to our consultants, who are also here in attendance.

But I also would encourage you to put those comments into writing, and you can submit those either on line to the city, or you can submit them in writing to Mr. Robertson to ensure that everything you wanted to say was, in fact, accurately reflected in your comments about the draft. So those written comments can still be submitted up until the close of the public input period, which again is April 14th.

All right. So with that I am going to begin the meeting. A couple of protocol things. This is a normal meeting for us. We are going to conduct it as we do public hearings in all of the different issues that come in front of the Commission. We are going to encourage, and, believe me, we want to hear from everyone. But given the size of the crowd and given the fact that we are going to continue this meeting until the 10th, and anyone else who may not have been able to come tonight will have an opportunity then -- we don't have any idea how many people

that may be -- we're going to limit each speaker to three minutes. If that seems like not enough time for you to present, please summarize your comments, and, again, go home and put them in writing in bullet points, whatever fashion you think is appropriate, and submit those in writing. Just try and limit your comments.

Ken is going to keep track of this three-minute timer here. If there are several people here, maybe you've looked at this with your neighbors or with family members. You are all here and want to talk about this, if you want to cede time, in other words if you'd rather just have your neighbor who's read this and you've discussed it with him and have he or she come up and do it, you can raise your hand when they come up here and say, "I'm going to give them my two minutes." Okay?

You can take your own three, or you can give two to the speaker, someone who will be speaking for you. We will allow up to five people to do that; so three minutes and then another ten minutes maximum if there are five people present here tonight that are prepared to cede their time to someone else. Okay?

The only other thing I would ask, the fire department you may have seen were here when you came in. We're approaching the capacity of this room. Standing is okay but not in the aisles other than when you are

queueing up to come speak. So please don't -- if more people come, we don't want to get people standing in the aisles. But once we begin this, when one person is speaking, if you would kind of keep, you know, four or five people in line so we don't spend a lot of time waiting for who is next, who is next; so we'll try to keep it going like that. So with that, gentlemen, any other comments about this thing?

MR. KEN ROBERTSON: No. Good job.

CHAIRMAN HOFFMAN: We're good, Ken? Covered all the points we needed to?

MR. KEN ROBERTSON: Yes.

CHAIRMAN HOFFMAN: In that case, we will open the public hearing. Who would like to comment on the draft EIR? And, again, if four or five of you want to sort of line-up so we kind of keep that line going as we go. We will ask that you, obviously, indicate your name. That's to make sure that the court reporter knows who it is and that our consultants know, especially if you are submitting a written one so they understand this is the same person contributing. Thank you.

PUBM-1

MR. DOUGLAS COLLINS: Thank you. Good evening, Commissioners. My name is Douglas Collins. My wife and I live on Second Street between Valley and Ardmore, and we are very concerned about the proposed oil project for a

number of reasons. Although I've stated some of those concerns in letters to Director Robertson, I'd like to emphasize a couple of those points here tonight.

I've thoroughly reviewed the draft environmental impact report, and I am impressed with its thoroughness. The analysis, in my opinion, sounded convincing, well supported by facts, science, and logic. I am confident that it will be a primary source of information relied on by voters in this election, and for that reason it needs to be clear, direct, and easily understood.

PUBM-1 continued

However, it's a bit wonky and dense, in my opinion, and I fear that many voters will find its 1,096 pages too daunting to read. I, therefore, have a few suggestions to make the key findings a bit more clear to the average voter. I took the opportunity to speak with the authors of the DEIR at the open house held March 8. My first question to them was why they hadn't selected no project as the environmentally preferred option, given all of the concerns that they raised, and instead recommended that it be relocated to the AES site in Redondo Beach.

They all looked at me like I was crazy and said no project was, in fact, their preferred option but explained that under CEQA if no project is the preferred option, they are required as a matter of law to select a second preferred option, which in this case was the AES

PUBM-1 continued

site.

Satisfied with that, I went home, and I searched through the DEIR several times on the computer looking for the phrase "no project" and trying to determine whether it was, in fact, the preferred option. That conclusion was apparently buried between the lines and couched in technical jargon. While it may be crystal clear to those steeped in CEQA, I don't think it's sufficiently clear to laypersons who will rely on the report for guidance.

I therefore recommend, as I did in my letter to Director Robertson, that the report be revised to make crystal clear in no uncertain terms in plain language that lay people can understand that the preferred environmental option is, in fact, no project. Thank you.

CHAIRMAN HOFFMAN: Thank you.

PUBM-2

MR. RICK PRUETZ: Good evening. My name is Rick Pruetz. I live at 522 The Strand, Hermosa Beach. The draft EIR partly answered four of the ten questions that I submitted last July. I now have 25 pages of questions on the draft EIR, which I will be submitting in writing eventually before the deadline, and I am wondering what percentage of those are going to be answered.

In my opinion, this particular EIR has a higher than usual obligation to respond to citizen questions. That's because voters will be asked to approve or deny

PUBM-2 continued

this project, yet they will not be asked to certify whether or not the EIR is adequate. The City Council will do that. Normally we would expect city staff to be involved in an EIR to ensure that it is responsive, but it seems that the city is taking a hands-off approach, perhaps relying on the consultant, Mr. Almanza, to make all the decisions about what goes into the document.

If that's the case, I ask Mr. Almanza to treat the questions asked by Hermosa Beach residents the way they would normally treat questions asked by decision makers.

For example, how can we evaluate the safety of a project with a preliminary design that violates equipment spacing codes and standards? To quote the draft, "If a crude oil spill were to occur, crude oil would impact this equipment and substantially increase the ignition probabilities, leading to an almost certain crude oil fire."

The draft dodges this problem by saying the applicant must submit a new site plan. The draft also strongly suggests that the strict compliance will not be possible on a 3.1 acre site but that there are possible work-arounds. So when the voters make their decision, they won't know what work-arounds will be used, whether these work-arounds will make the safety better or worse,

PUBM-2 continued

or whether there will be significant impacts caused by the work-arounds themselves. And these work-arounds are things such as increasing the height of the flare stack, installing thermal barriers around the flare stack, and so forth. I believe this is why CEQA discourages mitigation by future study.

The project should be designed now and analyzed for impacts in the EIR, not after the vote. The draft claims that some project impacts will be mitigated by additional conditions of approval that reflect certain design features. Apparently, these impact-eliminating conditions of approval are not yet written. These conditions of approval should be in the draft so that the decision makers can see for themselves what the draft is referencing.

In my opinion, the draft does not inform the voters of the full impact of this project, which showed 25 rather than 15 significant unavoidable adverse impacts in aesthetics, air quality, biology, fire protection, geology, hydrology, land use noise, recreation safety.

I will conclude. I support these opinions in my 25-page draft letter of comments, and I am happy to share that with anyone who contacts me. Thank you very much.

CHAIRMAN HOFFMAN: Thank you very much.

UNIDENTIFIED SPEAKER: Mr. Commissioner, I'd like

to yield my two minutes to this gentleman. You have two more minutes.

CHAIRMAN HOFFMAN: Do you want two more minutes, Rick?

MR. RICK PRUETZ: Well, okay. So thank you.

CHAIRMAN HOFFMAN: If I can coach you, Rick, you might address the things that you are suggesting weren't, in fact -- the unavoidable impacts that you were discussing right at the end there, you said there were --

MR. RICK PRUETZ: Yeah, well, okay. Let me flip to that, then. And I'm going to have to speak off the top. The quantitative risk assessment is based on -- well, I better read it. Sorry.

CHAIRMAN HOFFMAN: I apologize.

MR. RICK PRUETZ: I better read it. Sorry.

MR. ALEX SMITH: Don't worry about it. You have my two minutes, too.

CHAIRMAN HOFFMAN: Who was that, by the way?

MR. ALEX SMITH: Alex Smith.

CHAIRMAN HOFFMAN: Gotcha. Thank you.

PUBM-3

MR. RICK PRUETZ: Well, if that's the case, then I will just start from where I left off on my introductory comments. The problem is not limited to the 1.3 acre drilling processing site. The applicant has declined to submit designs for the oil field infrastructure, meaning

the bore holes and the wells and the downhole pumps needed to extract the oil and gas and dispose of the project wastes.

As detailed later in these comments, the DEIR contains a representative figure not to scale cross-section of the hypothetical well. Rather than estimate the scale of the oil field infrastructure, the DEIR forces readers to create their own estimate by saying that the wells could have a measured depth of approximately 9,000 feet.

PUBM-3 continued

An aerial photograph, meaning the proposed project oil field lease areas, has four test wells drawn on it, but Appendix A, project description design data, has this graphic labeled as anticipated location of test wells. Apparently, even the location of the first well will not be finalized until after the vote.

I could not find any graphic showing the location, anticipated, potential, or hypothetical, of all 34 wells, forcing draft readers to use their imaginations to understand the scale and impact of the 58 miles of oil field infrastructure beneath the city and its tidelands.

And I get that estimate -- you have to make an estimate because there isn't one in the project description or in the EIR -- by multiplying 9,000 feet by 34 wells. Perhaps it is common in the oil industry to

PUBM-3 continued

prepare an actual project design after approval, but CEQA appears to frown on mitigation by future study. Formulation -- now I'm quoting from CEQA now. "Formulation mitigation measures should not be deferred to some future time."

It is logical for the reasons stated above if the project design occurs in the future, we won't know how the project revisions will work, and we won't be able to analyze the potential impacts of the redesign. Okay. Have I still got time left?

CHAIRMAN HOFFMAN: You've got another minute or two.

PUBM-4

MR. RICK PRUETZ: Okay. So let me jump to -- okay. This goes into the fact that the DEIR states "The measures incorporated as part of the applicant's project design are considered to be design features but are not considered as mitigation measures under CEQA. If they eliminate or reduce a potentially significant impact to a level below the significance criteria, they eliminate the potential for that significant impact, since the measure is a component of the action. However, if the project is approved, the applicant proposed measures would be part of conditions of approval."

That last sentence is unclear about the sequence of events, but presumably before the November ballot

someone will write these design features as specific actionable conditions of approval so that the decision makers, meaning the voters of Hermosa Beach, will have a reasonable time to read and consider these conditions before they make their decision in the voting booth.

PUBM-4 continued

Despite what CEQA may or may not require, I suggest these conditions of approval be written now and included in EIR. As the DEIR currently stands, I don't recall seeing any statements about how a design feature mitigates a significant impact, the exact design feature being relied upon, or where a reader can find the design feature in order to form an independent opinion about the likely effectiveness of this design feature.

I suggest that it be included in the EIR because the EIR is the best place to inform decision makers about the entire array of mitigation proposed for this project. As a practical matter, I don't believe it's too early to put these design features into actionable sentences that resemble conditions of approval. I say that because they are articulated as conditions of -- thank you very much.

CHAIRMAN HOFFMAN: Okay, thank you.

(Brief interruption.)

PUBM-5

MR. GARY BROWN: Gary Brown, Hermosa Beach, 26th Street. That was impressive. I think I missed a few things on the EIR. I will have to go back and reread it.

But I am in favor of this project. Some have said that the money is being overstated, but I think that if there is no oil down there or a minimum amount, then E&B are going to pack up and go home, and we are going to end up with the benefit of an improved city yard; and instead of paying 7.5 million, we'll only have to pay 3.5 million.

PUBM-5 continued

I think the risks are overstated, and I wouldn't expect anything different. We are in a litigious society, and everyone wants to cover themselves in case something does go wrong. I believe that we have a higher risk of one of the tankers in El Segundo springing a leak or having some sort of another tragedy, an accident that we have no control over, have some of that crude oil leak down here.

So having hundreds of millions of dollars versus paying 17 1/2 million I think is a positive. Scare tactics and alarmist claims do work, though. Chicken Little is alive and well in Hermosa Beach. Thank you.

CHAIRMAN HOFFMAN: Thank you.

PUBM-6

MS. MONIQUE EHSAN: Hi. I'm Monique Ehsan. I live at 9 22nd Street. I'd like to direct your attention specifically to the fire inspection and emergency response section of the draft EIR. Of particular concern to me is that the first paragraph -- actually, it's probably not the first paragraph because I copied and pasted. But a

PUBM-6 continued

paragraph says "Inspection requirements may strain the capabilities of the local fire department. They are the ones charged with inspecting E&B's proposed oil facility. The local fire department already is below the goals defined in the annual performance report for inspections, and the inspection requirements associated with an oil and gas production facility would far exceed any inspection requirements that the department currently undertakes. The lack of appropriate inspection resources would be considered a significant impact."

So I want to ask everybody: How in the world can we expect an already strapped fire department to effectively inspect this oil facility? And I did a little research on what normally happens in towns, and I turned to Colorado, which has 50,000 active oil wells. And in Colorado there is only one town that asked for and received the privilege of hiring their own inspector, as opposed to leaving it to the Colorado Oil and Gas Conservation Commission and a few other departments. That county, strangely enough, has 29 wells.

However, they don't just hire an inspector and leave it at that, which is what the draft EIR would suggest we do in Hermosa Beach with our fire department. The inspector is paid by the county. I can give you this document if you like afterwards. You have it as a source.

The COGCC, that's the Colorado Oil and Gas Conservation Commission, retains all enforcement authority. The inspector is paid by the county but is approved of and trained by the COGCC and must perform inspections pursuant to the COGCC's rules and standards.

The county and the COGCC jointly coordinate various details of inspections, including the frequency of inspections. The two parties hold regular coordination and compliance meetings, and the Gunnison County inspector reports monthly to the COGCC regarding the number of inspections conducted and the results of those inspections.

PUBM-6 continued

I just wanted to reference that as an example of what's done in a county with a similar number of wells versus what we would have here with an already strapped Hermosa Beach Fire Department with nobody currently on staff who has an expertise in the area of oil and gas inspections.

I also want to direct your attention to another area of the fire inspection and emergency response section, and that is that the required water supplies of 3,000 to 5,000 GPM is currently not available in Hermosa Beach. The water supply infrastructure in the area currently is not able to provide these levels of flow but can be improved to do so with additional design and

PUBM-6

equipment.

So basically I would like a little elaboration in the draft about what is required of Hermosa Beach in terms of improving the water infrastructure. It looks like we might have to lay new water pipelines, new fire hydrants. That is an enormous cost, not to mention the disruption that it will cause to families whose roads are being torn up. Thank you.

CHAIRMAN HOFFMAN: Thank you, Monique. Be sure to sign your name.

PUBM-7

MR. SHANE MANNING: Good evening. My name is Shane Manning, and I am a resident of Hermosa Beach. I live on 5th Street between PCH and Prospect. When it comes to the draft EIR, on Page 4.8.6 it states, quote, "In general, a conservative approach is taken in conducting the analysis. Using a conservative approach ensures that risks are overestimated."

And there is one particular section in this draft EIR, Scenario 1, Appendix C, that they discuss a thousand foot section, drilling section, and I feel they've grossly overestimated the amount of pressure that this section could see.

Now, the fields that we're familiar with down here at the Torrance field and the LA Basin, these fields have never seen this amount of pressure at all, and the

PUBM-7 continued

assumptions that the author of this uses are several times over what we would see in these fields.

So when it comes to the voters being armed with the right information when it's time to vote on this, clearly the voters need accurate information. And I would challenge the authors to go back to the drawing board and use assumptions that are appropriate for this area that we see. And I think that way the voters will be armed with the right information and could make the appropriate choice when the time comes. Thanks very much.

CHAIRMAN HOFFMAN: Thank you. As he's signing his name, I note there's no one waiting. Are we done already? Please queue up so we don't spend a lot of time doing that. I apologize if you couldn't stand.

PUBM-8

DR. BERNICE LINDO: Thank you. Thank you. I am Dr. Bernice Lindo, and I've lived here 45 years. I am on Corona Street. And I just wanted to inform you of two things that were not mentioned at all, one of which is about the CEO of Exxon Mobil has recently sued an oil company that wants to put down oils in his neighborhood, and he is suing them because he doesn't want it. Apparently, he knows something we are not looking at.

Secondly, we just had an example of seismic activity right here, and that can make pipes of gas or oil crack or burst or open, and soon we'll see oil coming up

PUBM-8 continued

into our homes. I mean where else is it going to go? Or into the ocean.

And it said that there's noise. I was teaching at Beverly Hills many years ago when they put up the well that they have, and they found that around that well there were more cases of cancer and leukemia. This is a toxin. It is poison. It's coming up. And it also empties out dirt and sand and grit that is coming up with its drilling, and that contains all kinds of stuff that you don't want anywhere.

Because of the drilling and the vibrations at the various levels, it can possibly empty out some areas of the different layers. And, as a result, you will go down PCH, and you will see a sinkhole, which you will go into with your whole car and your family. When that happens, who are we going to talk to at the oil company? Who are we going to address? Are we going to come here and talk about it after the fact?

I don't understand why anybody would be favored by this. This is not something we want to bring to our wonderful community with healthy air, beautiful water, and the quietude that we deserve. We have had this community for many, many years. We've kept it safe. I think this is an unsafe alternative. Who monitors the fracking? I didn't see anything mentioned in there. Who is going

PUBM-8 continued

to -- say they won't frack, but how do we know that?

We are also contributing to fossil fuels for the planet by allowing the drilling. We're coming out now with electric cars. It doesn't seem to me to be the time to start drilling more, especially in our community that is so observant of the planet. Thank you.

CHAIRMAN HOFFMAN: Thank you.

PUBM-9

MS. KATRINA BACALLAO: Katrina Bacallao. I live on Hermosa View Drive. In response to the draft environmental report, I speak to you to express my concerns regarding several statements and the lack of sufficient and current research reported mainly in the biological resource section of the DEIR. Because of the risk of an oil spill being 34 percent, as described in Section 4.8, and results of such a spill to be disastrous, it is even more important to provide thorough, current, and accurate information to the citizens of Hermosa Beach, as well as the surrounding communities who will also be dramatically affected by the 1 in 3 chance that oil will cover our prestigious coastline from Palos Verdes to Malibu and possibly further.

On Page 4.3 in a biological resource onshore resource sandy beach section, the DEIR does not discuss the western snowy plovers, which roost all over Santa Monica Bay. This is a federally endangered species found

in both north and south Hermosa Beach. In fact, in 2012 the federal register of the Department of Fish and Wildlife increased the critical habitat for the snowy plover from 10 acres to 27 acres specifically on our Hermosa Beach.

This stretch of beach has supported an average of 25 Pacific Coast western snowy plovers between 2003 and 2012, further strengthening the decision to protect this stretch of land. This location contains physical and biological features essential to the conservation of the species. How will this threatened species be affected by an oil spill? I request a comprehensive and robust analysis of impacts to the local nesting shorebirds to be added to the EIR.

PUBM-9 continued

In the biological resource offshore resource marine bird, it states "Few, if any, seabirds nest on the mainland coast of Southern California, which includes the Santa Monica Bay. Both beaches and other inner tidal zones of the Santa Monica Bay are important nesting and feeding grounds for migratory waterfowl and shorebirds such as egrets, herons, gulls, terns, sanderlings, and plovers. In fact, there's been a resurgence of nesting bird populations due to the increased population of these species, including the federally endangered California least tern.

In a report prepared by the Santa Monica Bay Restoration Project, the California State Coastal Conservancy in November of 2011, over 200 seabirds were identified and documented in the South Bay as either nesting confirmed or breeding activity observed. How will these bids be protected from an oil spill? I request that a comprehensive and robust analysis of impacts to local nesting shorebirds be added to the EIR.

In the biological resource rare and endangered species it states that the blue whale is only rarely sighted. In recent years my family and I have observed many whales directly off Hermosa Beach shores, including the blue whale, orca, grays, and humpbacks. The report also states that these endangered animals are generally found far offshore.

PUBM-9 continued

I was given four more minutes. However, I have personally observed whales with my naked eye from my house four blocks from the beach. Because of the considerable ecological diversity of our outer shores and the complex web ecology of the Santa Monica Bay, the State of California has designated areas on Palos Verdes Peninsula to Malibu as marine protected areas. These MPAs were created across the state to ensure the protection of these historical mammals. And since this designation, there's been an increase in sightings.

In the onshore resources Section 4.3 the list of species is extremely understated. I am now referring to the greenbelt. How is it possible that a list of the abundance of birds near the project area by simply doing a one-day observation? This observation took place on October 23rd. Several rare birds have been identified on the greenbelt, including but not limited to peregrine falcons, which were formerly endangered, white-tailed kites, American kestrels, red-tailed hawks, night herons, and owls. These animals forage for food and nest on the greenbelt.

PUBM-9 continued

I request that current bird sightings and documentation be gathered from reputable organizations such as the Audubon Society, who has decades of information on both migratory and resident birds found in the South Bay.

Lastly, it is well documented that artificial lighting has a negative effect on certain animals. Exposure to lighting durations beyond normal limits can impose destructive effects to their reproduction. Similarly, illumination levels affect both the behavior of predators and, also, prey. This would adversely affect nocturnal birds and mammals, including bats, close to the project site on the greenbelt that will be illuminated 24 hours a day.

PUBM-9 continued

I request that a comprehensive and robust analysis of impacts to resident and migratory birds including raptors as well as bats and other mammals be added to the EIR.

I conclude that Hermosa Beach is a part of the greater Santa Monica Bay community that has strived to protect the natural diversity and abundance of marine life and the structure, function, and integrity of marine ecosystems. We continue to help sustain, conserve, and protect terrestrial life populations and rebuild those that are depleted. Protecting the biodiversity of all of Hermosa Beach will ensure a strong natural heritage and build a greater appreciation of the last remaining open space in our city and surrounding waters. Thanks.

CHAIRMAN HOFFMAN: Thank you.

PUBM-10

MR. BRAD PAUTSCH: Howdy. My name is Brad Pautsch. I live on Loma Street around the 10th block, Loma and 10th. I read the air quality control. It's basically the only part I've gotten through there and a little something about the construction activity. As I see it in that report, and if I am correct, the air quality control table in the back is basically stating once this facility is operational, it's producing everything underneath Southern California's Air Quality Management Division. So I am not understanding how we are

PUBM-10 continued

adding to the pollution if that is certainly true from that table.

The second note on here is looking at construction. I would like to see some kind of comparison between the construction of this facility studied and the construction of a strip mall or a three-story hotel.

I work right now for a construction firm that's working in the oil business. I've built commercial. I've built civil. And doing the construction for an oil company and a facility such as this and the number of vehicles that are allowed is quite smaller than building a strip mall, which I have done.

So I just ask people when you look through that data to actually have a comparison to. In construction, no matter what you're going to build, you think it's going to cause traffic, but in this project the put limits as to how many vehicles, what type of equipment you can use.

CHAIRMAN HOFFMAN: Thank you.

PUBM-11

MR. JOE MONTANA: Hello. My name a Joe Montana, and I just want to give a little bit of a bigger picture. Sometimes some of these people are going into some pretty good minutia, choosing nature over man instead of nature with man, I think. But so the bigger picture for me is, looking at this, I moved here from Detroit in the 1980s. Jobs were scared in Detroit even then. You see, for years

PUBM-11 continued

before my departure, Detroit made a series of decisions that were not friendly to businesses. Eventually businesses got sick of it and left the city, bringing with them the jobs, the tax revenues, and the other people who would vote for pro business policies and decisions with them.

As you can imagine, this was a vicious cycle until the only people left were the ones promoting the policies in the first place. As you all probably know, Detroit has declared bankruptcy. Now, as I said, in the '80s I moved from Detroit to Los Angeles, where the pioneers in aviation and the movie business started entire industries back in the day. Did you all know that the last aircraft assembly plant in California, the Boeing Long Beach plant, has shut down? Did you all know that over 90 percent of the blockbuster movies are now filmed outside of Southern California?

Three decades ago LA was home to 12 Fortune 500 headquarters. Today there are four. I recently asked a large business owner that I know if he considered California when he relocated from Michigan, and he laughed out loud. Not even a consideration.

So what happens in an environment like this? Tax rates get raised to squeeze more money out of the fewer revenue-producing companies and people that remain.

PUBM-11 continued

California now has the highest tax rate of any state in the country. That's 50th out of 50. That's where we live, folks. And what do these revenue-producing companies and people do with this environment? They move to a business-friendly state. It is the same vicious cycle of Detroit, and we are headed for the same bad ending if we don't wake up.

Now, what type of groups, what type of people, what type of thinking is driving all the revenue producers away? Look about you and think about that. Here, where state taxes are the highest in the nation, and we have almost the highest unemployment rate as well, and we want to slap away this once-in-a-lifetime windfall for the city. Whatever happens, I can guarantee each of us will pay more if this gets rejected, and each of us will pay less if it is approved, not to mention a lot more money for improvements that would make Hermosa more Hermosa.

My preference, my personal preference would be to eliminate the light pollution of Clark Field. Can I get two minutes?

UNIDENTIFIED SPEAKER: Two minutes.

PUBM-12

MR. JOE MONTANA: My personal preference would be to eliminate the light pollution -- I would think the environmentalists would actually like that -- that Clark Field produces. I asked about that. It's hundreds of

PUBM-12 continued

thousands of dollars to eliminate that light pollution and to increase the lighting and safety for our kids playing, not to mention tennis courts are useless, the lights. Hundreds of thousands of dollars, never going to happen. Never going to happen.

But with the extra revenue, that's one of many. That's my pet project. What's yours? I mean everyone has some, and they are all possible with the extra money.

Now, anyway, as you may have noticed, there's not a lot of extra money floating around California with people or cities right now. And let me just put a call out to anyone watching on TV as well as anyone undecided in here, which I doubt. Let me just put my call out to common sense. This community needs to resist the attempted hijacking of our city by these pessimists among us.

In my eyes we should all be welcoming this opportunity from E&B with open arms and thanking them. Most states go out of their way to entice businesses to their area, and we are driving them away. Please join the rational optimists of Hermosa and support this project. Thank you.

CHAIRMAN HOFFMAN: I would simply remind everyone whichever I hate to say side of the issue you are on, what we're here tonight to do is talk about the EIR.

MR. JOHN FLEMING: Hi. My name is John Fleming. I live on Springfield next to 21st Street, and I've come up to make some comments concerning the EIR. And I am a big believer in full disclosure. I think the young lady who was up here talking about the impact on the fire department, that clearly ought to be fully covered in the EIR, the final one.

Now, having said all of that, quite frankly, about 99.9 percent, including me, are laymen when it comes to oil and gas issues here. We can literally go through all of the detail. We can look at it carefully. We can cherry pick individual clauses and sentences and support anything you want to support. But from an oil and gas perspective, we don't have the underlying competence -- and, again, I include myself in that -- to look at the detail and come to a rational conclusion, which is why I assume an independent firm was hired I assume by the City Council to look at this.

PUBM-13

So at the end of the day most of us have to look at this thing and look at what the conclusions are that are in the EIRA -- EIR. Too many initials and too much of that stuff. But when I look at it now, what I see are conclusions that say from a risk standpoint, risk of a bad situation happening are remote, and the effects of -- the health effects are insignificant.

Now, I couldn't independently come to that conclusion by reading through the EIR. I can read individual things, but you can also read some other things because there's some pretty scary charts in there in terms of having charts with a map and a red zone and a kill zone and an injury zone in there. Then you go on, and you read the next page and say, "Well, that probably will never happen here."

So the point of what I'm trying to say is: Ultimately we, as citizens, have to rely on the conclusions that whoever wrote this thing come to to a large degree because we, as citizens, don't have the depth or the personal staff to go back and challenge what they're saying.

PUBM-13 continued

There may be a few of us citizens that are experts in the oil and gas field, but I can tell you I am not one of them, and I would bet that there's almost nobody out there, probably one or two exceptions, that has that expertise.

So, again, I am for full disclosure. Put everything in the report. Let it hang out. But I think at the end of the day the conclusions that the authors of the EIR come to are going to be pretty important to us. And I assume that, again, they were selected independently.

UNIDENTIFIED SPEAKER: Two minutes.

PUBM-13 continued

MR. JOE MONTANA: They weren't hired by E&B, and so on and so on and so forth. So that's the point I wanted to make to you. We can add another thousand pages of detail, and I do believe we ought to have full disclosure and add some additional things as some of the people have requested.

But at the end of the day this conclusion that they come to has got to be pretty important. And if I look at the conclusion that's there now, I don't see how you couldn't support it merely because this is a once in the history of the city opportunity for us to do some things that everybody here could think of.

But if this thing came back and the conclusion was there was a chance that -- there was a reasonable chance of a catastrophic event and cancer rates and other things in the community would go up and there was a real effect, you know, I would have to rethink that. I would have to rethink that conclusion here. So thank you for giving me the opportunity to say a few words.

CHAIRMAN HOFFMAN: Make sure you add your name there.

MR. JOE MONTANA: Minor technicalities.

CHAIRMAN HOFFMAN: Who is next as he's signing? Whoever is next please come up so we keep this moving.

MS. AMY ROTH: Hello. Hi. I'm Amy Roth. I am a 331 Manhattan Avenue, Hermosa Beach resident. My comment is kind of around a general area around mitigations. So I've been in the oil industry 20 years, and I know that there's very good technology to deploy when you are doing a project of this nature. And so what I guess I would like so to see in general is that the mitigations that are being proposed by E&B, make sure that they are brought into this assessment and taken into account, whether the findings are then significant or insignificant.

And so one example, I think, is in the odors

PUBM-14 area, and I think that's something that's going to be very important to residents and I think the voting community. So I think the EIR had a significant finding around odors, and I think that some of the mitigations being proposed by E&B include a closed loop system for vapor recovery.

So what we need to do is just make sure that along all the areas that you guys -- that are being studied by the consultants take into account all of those mitigations that are being proposed so that the voters do have the full picture on what is significant and what is insignificant in terms of impact.

A second area around mitigations I'd like to also see addressed is around safety and risk of upset. So I am just a little confused because I know that Torrance oil

PUBM-14 continued

field, my understanding is it is not pressurized. And so I believe that the draft EIR made some indications of a significant impact if the Torrance oil field is pressurized and these oil wells are pressurized.

So I would like some clarity and factual information around whether that is a belief that it is pressurized or it's not because my belief is it's not pressurized so that the risk of upset and safety incidents would be significantly decreased and I think probably insignificant.

My final comment is that even being from the industry, it's daunting to take on the EIR, and so I don't know if perhaps the City Council could endorse something to when the final EIR comes out to make some kind of plain language document for voters with the findings. I think that would help people a lot. I don't think we can expect voters to read, you know, thousands of pages of documents and take it all in and figure out the right thing to do. Thank you.

CHAIRMAN HOFFMAN: Thank you.

PUBM-15

MR. LOGAN ALLEN: Hi. My name is Logan Allen. I just want to touch on one of the things that has been touched on tonight, one thing that kind of makes the most difference to me. That's the firefighters that I heard somebody else mention. Both my parents are police

PUBM-15 continued

officers. I grew up around police officers and firefighters. It's the people I was around, and they've got a tough job, and there are a lot of benefits that this will guarantee Hermosa Beach.

There are a lot of things that people can speculate on and what if and that and the other, but there's a lot of very meaningful benefits, especially to the firefighters here. You know, you already had one guaranteed position, and then you could do anything you want with the rest of the money, including improve the fire department and their response times and the safety of them.

You can use it for the police department if you want. You've got a lot of leeway in what you do with that money, and you can do some very meaningful things to improve the city with it, and that's a guaranteed ability that you have.

And I would put a bigger emphasis on the things that you know that you can do rather than having a fear of the unknown that can be blown out of proportion. So I just hope that you will consider those things. Thank you.

CHAIRMAN HOFFMAN: Thank you. Whoever is next, please come on up while he is signing.

PUBM-16

MS. MARTHA LOGAN LONGFELLOW: Good evening. Martha Logan Longfellow. Amy had mentioned something that

PUBM-16 continued

I think is really important to have in the EIR. I think a lot of the technical jargon is just kind of glossed over, and just one thing in particular has to do with the noise, and I think it would be really advantageous in the EIR if you put an example in there.

If you say 60 decibels, 120 decibels, most people, including myself, don't know what that means, but you could have an example. You could have an example like 60 decibels would be somebody that is sitting across speaking in a low voice or somebody that's sitting across from you yelling at you. And I think that the whole noise issue could be sort of put to rest or not put to rest if people understood what these facts or what these figures mean. Just a suggestion.

CHAIRMAN HOFFMAN: Thank you. Next, please?

PUBM-17

MR. GEORGE BARKS: Good evening, Chairman Hoffman and members of the Planning Commission. George Barks, Hermosa Beach, Redondo Beach. The bottom line to this issue is really safety, health impacts and weighed against the economic benefit that we all know Hermosa Beach can use extra money, always has needed extra money.

I'd like the authors of the EIR to look into the environmental impact of our neighbor to the south, Redondo Beach. They had 55 wells for 30 plus years there. And being a South Bay resident all my life, 53 years in

Hermosa Beach, I am not aware of an issue there. I know there was a little subsidence, and there's a controversy on what actually caused that.

But I really believe that the city's position on reducing the carbon footprint actually can be accomplished faster and more by approving this project. The city can implement many more green projects because they would have the resources to do it.

One concern that I have in the EIR is the pipeline spill Section 4.8. "The probability," it states, "of any spill occurring during a 0.50 inch storm event in the Herondo Street area would be 0.4 percent over the life of the project." This is the scenario that oil can make its way to the ocean through a storm drain. This is less than 1 percent for 35 years. The report says the probability is exceptionally low.

PUBM-17 continued

Furthermore, it also says with mitigation that the worst case oil spill is approximately 30 barrels. It is my understanding that one of the main reasons for pipeline leaks is third party damage. Who would be digging during a one-half inch rain storm? No construction firm I am aware of. The probability of this incident should be corrected to reflect that.

My biggest concern about this section is the other sections that refers you to for consequence,

PUBM-17 continued

biology, hydrology, and recreation. Listen, spills are not good, but I'm having a hard time understanding how 30 barrels of oil in a rain event will make the type of long-term impacts that the authors are stating.

For instance, Section 4.10, land use recreation, states it could affect the public perception of the recreational quality of the beaches and cause a reduction in the recreational activities at the beaches for a substantial period of time. This is completely misleading and evokes visions of the Gulf spill and its impacts. Everyone knows a 30-barrel spill would essentially be unnoticed during a rain event and would certainly be cleaned up very quickly. Please add real context for this scenario. May I have two more minutes?

UNIDENTIFIED SPEAKER: Two more minutes.

MR. GEORGE BARKS: Okay. Santa Barbara, California, has approved several oil pipeline projects that have significant and unavoidable impacts. Tranquillion Ridge offshore pipeline, Santa Maria Energy, and many others have had overriding considerations. Why? The probability of a spill is so low that the economic benefit outweighs the risk. The environmental impact report says the probability of a spill reaching the ocean is exceptionally low.

Clearly, I think that this environmental impact

PUBM-17 continued

report has to really reflect not only what Redondo did, but Long Beach. Long Beach has used their oil for their waterfront, and I'd like to know what the impacts have been environmentally in Long Beach and Redondo Beach. Thank you.

CHAIRMAN HOFFMAN: I should probably note for the record that's the first time in the history of this city that anyone asked George to speak longer. Anyone else?

MR. GEORGE BARKS: That's true.

CHAIRMAN HOFFMAN: Who is next? Anyone else? Going once? Going twice?

MS. MONIQUE EHSAN: I have one more point to make if someone will give me two more minutes.

CHAIRMAN HOFFMAN: If you'd like someone else to do it for you, Monique. If you'd like someone else to do it for you, Monique. You've had your minutes. Did someone give you time? Do you need someone else to give you --

UNIDENTIFIED SPEAKER: I will give Monique two minutes.

CHAIRMAN HOFFMAN: You can't do that. You've already used your time.

UNIDENTIFIED SPEAKER: I will give her two minutes.

CHAIRMAN HOFFMAN: There you go. Denzy -- come

on up. You are going to speak for Denzy. Boy, that would be a first as well. Boy, we're setting records.

MS. MONIQUE EHSAN: I was too timid to ask for this two minutes before, but sitting here long enough, I earned the courage -- I gained the courage. So I direct your attention again to the fire inspection and emergency response section. I was really alarmed by this statement: "Based on preliminary design drawings, the site appears to have some issues with equipment spacing requirements, including well drilling equipment spacing from buildings, fire and heater separation distances from property line and property line from storage tanks."

PUBM-18

And the reason that I'm alarmed is because E&B Oil is in the business of drilling for oil, and I would hope they know what they are doing, not just for their prospective plan here but for any town they are drilling in.

So the fact that they would submit a preliminary design drawing that doesn't adhere to the safety regulations that are in place is very alarming for me. And since the city, it seems according to the draft EIR, is going to be the party charged with design and construction compliance, I would hope that there is an enhanced or maybe a more vigilant view of E&B, since, according to this, they don't seem to know what they are

PUBM-18 continued

doing. Thank you.

CHAIRMAN HOFFMAN: Thank you. Anyone else? For the sake of efficiency, let's keep it coming if people are, in fact, going to speak.

MR. DAVID MACHARADZE: My name is David Macharadze. I've lived on Second Street in Hermosa Beach for the last 14 years. The EIR has a pictorial demonstration of what the site will look like after the construction, and that picture looks like a really good-looking pretty box. What it doesn't show is what's going to be sticking out of it, about 80 -- 70 or 80 feet, whatever it might be.

PUBM-19

The other thing the EIR didn't address very clearly was it will say that drilling for a particular drill will be a year, for example, but it doesn't say that there will be five at a time for the course of many, many years.

So it's sort of like slightly difficult to follow for somebody who -- and it might be in some details and language I don't understand as somebody not in the oil business. But it's very difficult to follow exactly what will it look like because that is a part of why I personally moved to Hermosa Beach and why a lot of people come here is visually it's spectacular.

We already have the electric facility in

PUBM-19 continued

Redondo Beach that's hard to look at, and then adding more would make it more difficult, I think. This town is getting stronger and better. Real estate values are going up. There's development in building. There's more taxes coming in through that. We have an educated, smart City Council. I think there's a lot of different ways that this city can survive and make money and thrive without having to build this monstrosity in the sky.

And to be completely frank, I don't know what it's going to look like because nobody showed it to me. The pictures you see are ridiculous. It's literally a square box. It doesn't even show what's coming. There is a pretty little triangle coming out of it. That's not what it looks like. So getting a rendering done would cost a thousand dollars. It's not a huge request. I'll personally fund it if somebody needs it.

But basically there should a rendering of what this site will look like a year from now, five years from now, ten years from now, and that demonstration can help a lot of people understand exactly what is to be expected visually. Thank you.

CHAIRMAN HOFFMAN: Thank you.

PUBM-20

MR. RAY DISSAULT: My name is Ray Dissault. I live on 18th Court, and I'm going to steal the chairman's words for a second and say that has got to be the first

PUBM-20 continued

time anyone has described the current city maintenance yard as spectacular and beautiful. There's no doubt that whatever physical improvements are made are nothing but a plus.

I wanted to talk about the fact that a lot of people look at this as something that's already done, like everything is supposed to be already finished. If this project gets approved, it has to go through a very long approval process that includes local permitting, I assume, coming before you gentlemen and having to meet all kinds of requirements. I believe it will have to be approved under CEQA. It will have to get permits under the Los Angeles County. There's a lot of details to still be hammered out. Actually, there's a lot of great information in the EIR, and we need to start looking at that information. It's important.

If there's ways to mitigate the impacts of the oil recovery facility, then those ways should be sought out, and they should be put into a development agreement and required of the oil company when they develop the oil. As a lot of people have said, we desperately need the money in this town, and I think it's a bad opportunity to pass it up.

CHAIRMAN HOFFMAN: Thank you.

PUBM-21

MR. IRA ELMAN: Greetings. Ira Elman, Loma

PUBM-21 continued

Drive, Hermosa Beach. I just wanted to make a couple quick points. One is I wanted to make sure that hopefully it was in there somewhere that the E&B company, E&B Drilling Company, has never done this technology from start to finish. That came directly from Mr. Layton. The president of the company told me personally he had never done this technology. I want to make sure that that's in the EIR at some point in time.

And, also, I am pretty sure it's in there. I haven't read through the whole thing verbatim, but a big concern is the insurance. So Mr. Layton in a previous project -- you know the story -- he declared bankruptcy and left an area in disrepair and, you know, fled, declared bankruptcy, whatever they did, and never paid for the big mess that they had. So I wanted to make sure that's on the record somewhere.

And, also, that the gentleman who is the money man here should be in the economic or EIR that he was part of the Worldcom mess on the board of directors, and I think that should also be somewhere in the record.

Also, as one of the recent gentlemen said, the 90-foot tower that's going to be there, it needs to be understood by everybody, and I think it is pointed out in the EIR and elsewhere, that that will be there after the initial three to five years or whatever it is of the

PUBM-21 continued

initial period. Up to 90 days every single year we're going to have to look at that tower. I just want to make that clear. Thanks.

PUBM-22

MS. SIDRA WIEDER: Hi. I'm Sidra Wieder. This is the third time this has happened. I'm at home watching TV saying I don't need to go down there, and here I am again. I came down because I am Chicken Little, and the sky is falling. Thank you. Everybody here has covered statistics and numbers and money far beyond anything that I could.

I just cannot fathom having a city like this in this day and age with the knowledge that we have of what kinds of things -- I don't care if it's 5 percent. I don't care if it's 1 percent, but it's much, much higher than that. All we have to do is look at Galveston. Their beaches are filled with tar. You walk that beach, you have to take tar off of your feet. I've been up to Valdez. It's 25 years ago this week. This is a -- oh, it is so ungreen. It is so anti-anything that to me this city has stood for.

And, you know, I came from New York years and years ago. That's a pretty tough place. This place is so special, and people who may own property here but don't live here, I don't know, you know. To me, I am more vested than that.

PUBM-22 continued

I am like this is a totally emotional thing to me. I cannot make it -- I can't catch my breath. It is totally an emotional decision. I am a business woman. I've spent 30 years in the business -- 35 years in the business world. I've done a lot of traveling. I've been to places that have had oil spills. It only takes one to totally mess up your life, your city, your property, your air, everything that we cherish and love in Hermosa Beach.

And I don't think we're going to go broke, and I don't think we're going to make that much money off of this that any of us are going to see back. And a naysayer would say yes, all of our taxes are going to get raised if we don't do this, if we don't jump on this once-in-a-lifetime opportunity. I don't know. Hermosa has gotten this far this long without having this kind of an awful, awful thing happen. So I am really not biased at all other than that. Thank you.

CHAIRMAN HOFFMAN: Thank you. Again, is there anyone else who would like to address their comments to the EIR, the draft EIR?

DR. BERNICE LINDO: I already spoke, but I didn't go my full limit.

CHAIRMAN HOFFMAN: Doctor, I will do as I did with Ms. Ehsan. If there is someone who will give you two minutes, I'd be happy to entertain you.

UNIDENTIFIED SPEAKER: Two minutes.

CHAIRMAN HOFFMAN: There you go. To those who may be watching as she's coming up and for the rest of you, I will remind everyone again that this meeting will be continued until Thursday, April 10th, at 6:30 again here in the council chambers. So there will be a second opportunity if anyone is at home -- I am thinking of the poor woman that just ran down here -- if you are getting ready, getting your shoes on, you can wait and come on Thursday if that's more convenient for you.

PUBM-23

DR. BERNICE LINDO: Just one comment. I didn't see anything in the report dealing with home values. I picture myself trying to sell my home and telling somebody, "By the way, we have 34 oil wells here." I think that we can kiss good-bye the wonderful values that we have in Hermosa Beach, and I think that's important, especially for those of us who have lived here a long, long time. Thank you.

CHAIRMAN HOFFMAN: Thank you. Anyone else?

MR. ALEX SMITH: My girlfriend gave me her two.

CHAIRMAN HOFFMAN: You've already given your two minutes away, didn't you? We're going to play this game. Okay, please.

PUBM-24

MR. ALEX SMITH: So I am Alex Smith, resident in Hermosa Beach. I live on Manhattan Avenue just a couple

PUBM-24 continued

blocks from the site, and I am a realtor in the South Bay. And like the madame over here had described, property values are my main concern for my clients. So when I'm talking to buyers who are interested in Hermosa Beach, I have to legally tell them go to the website on the home page on the city. I can't tell them it's going to plummet your property value if it happens. I can't do that. My broker says don't say anything like that, so don't record that.

And my concern is that as soon as this vote happens, if it goes forward, we will see people want to sell their homes very quickly to get away from there because of the light, because of the noise, 60 decibels, 120 decibels, whatever, because of the smells, because of the potential for problems that we don't really know what can or would or possibly happen.

And I know a couple other things that I think would be awesome if they were included in a report that's very simple and concise for people to read. The fact that E&B put out this chart showing wells in the South Bay and in the area, and Manhattan Beach residents are writing to the mayor of Manhattan Beach in an uproar because it looks like they have active wells, and E&B refuses to redact that statement. "Sorry. We were misleading you. Those are not really active wells." Please put that in the EIR,

PUBM-24 continued

that they mislead people. I want to thank you very much.

CHAIRMAN HOFFMAN: Thank you. As I'm waiting for whoever the next speaker is, I would remind everyone that there also is, however, an economic impact assessment report that was done by the city that does address at least some of the questions regarding property values and the consequences of the impacts of the project associated with that. Anyone else? Please come forward. She's just signing in.

PUBM-25

MR. BOB RASMUSSEN: Okay. My name is Bob Rasmussen. I live on 16th Street, and I am in the real estate business here in this town, also. Now, what I've heard here is basically oil spills and so on. Well, do you know that west of Hermosa Avenue where there's 50 to 100 feet west there's oil pipelines up to Chevron, and going up 190th Street there's oil pipelines over to Exxon Mobil? And nothing has been mentioned about this, and I know this -- or I'm going to say this. For the last 50 years or so there's never been a problem with those pipelines. Has there? I mean this city should know it.

COMMISSIONER ALLEN: Personally I know -- I used to work for Mobil, so I know of one, but --

MR. BOB RASMUSSEN: Okay, but whatever. Somebody hid it, but basically one in 50 years or something.

COMMISSIONER ALLEN: Sorry.

PUBM-25 continued

MR. BOB RASMUSSEN: That's okay. And the other thing they've been talking about is money. That's true. This will bring money here. But the point is that it's not a total disaster. I personally lived where when it rained heavy a little crude oil came out in the grass where there was no cars. It didn't bother anybody, and that's what's going on when you live around that stuff.

And so I say it's all these hazards everybody has talked about, but the fact is this is a modern day and age. I lived or heard a one cylinder booted diesel running a well and these electric wells. Nothing like -- electric motors. There's nothing like that now. This is an advanced age, and I'm just talking about from the past. And a lot of these ideas and problems came from the past, and they are not in the present day. So anyway, thank you.

CHAIRMAN HOFFMAN: Thank you very much. Anyone else? Anyone else? All right. Seeing no one, I am going to close the public hearing. I am wondering if either of our consultants wanted to make any comments to correct any misinformation that might be from whichever source. We're good? I just don't want something to kind of going on the record uncontested regarding the EIR at this point.

Okay. Again, we will adjourn, then, to our continuation of this meeting that will be again 6:30 on

1 Thursday night here on April 10th. Thank you very much.
2 (Proceedings adjourned at 7:50 p.m.)
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REPORTER'S CERTIFICATE

I, LYN CORRIN AAKER, CSR No. 6228, Certified Shorthand Reporter, certify;

That the foregoing proceedings were taken before me at the time and place therein set forth;

That the testimony of the witness and all objections made at the time of the examination were recorded stenographically by me and were thereafter transcribed;

That the foregoing is a true and correct transcript of my shorthand notes so taken.

I further certify that I am not a relative or employee of any attorney or of any of the parties nor financially interested in the action.

I declare under penalty of perjury under the laws of California that the foregoing is true and correct.

Dated this 15th day of April, 2014.

_____

LYN CORRIN AAKER, C.S.R. No. 6228

ENVIRONMENTAL IMPACT REPORT MEETING

HERMOSA BEACH, CALIFORNIA

APRIL 10, 2014

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1 ENVIRONMENTAL IMPACT REPORT MEETING taken at
2 1315 Valley Drive, Hermosa Beach, California, beginning
3 at 6:30 p.m., on Thursday, April 10, 2014, before
4 Cynthia L. Varela, CSR No. 5917.
5
6 PLANNING COMMISSION PANEL:
7 Peter Hoffman Kent Allen
Lauren Langer Ron Pizer
8 Pamela Townsend Sam Perrotti
Mike Flaherty Ken Robertson
9
10 SPEAKERS:
11 Gary Brown John Bowler
Lorie Armendaring Jeff Krag
12 Dean Francoìs Ray Dussault
Martha Logan Sheryl Main
13 Anna Vitali Mike Matronini
Pauline Miller Craig Cadwallader
14 John Lang Chris Miller
Loretta Sparks John Arbelaez
15 Karl Grossman Bob Rasmussen
Cindy Smith Walt Kashon
16 Dan Rudin Al Sattler
Lisa Santora Joe Galliani
17 Ryan Ueda Dave Andrey
Andre Sharp Bob Rasmussen
18 J.R. Reviccky Jim Rosenberger
John Carlson Stacey Armato
19 Damon Nagami Joel Shapiro
Person in yellow suit David Machamriz
20 Jim Sullivan Jim Rosenberg
Brandon Gersh Nanette Barragan
21 Roger Light
Marcelo Kraus
22 Mike Collins
Barbara Ellman
23 Logan Allen
Jan Rice
24 Iatianna Geur
Tom Malone
25 Peter Shellenbarger

HERMOSA BEACH, CALIFORNIA; THURSDAY, APRIL 10, 2014

6:30 P.M.

MR. HOFFMAN: Our agenda tonight I think everyone is aware is a one-item agenda. We are here tonight to continue. This is a continuation of the previous meeting last Wednesday night. This is a continuation of the opportunity for members of our community to comment upon the draft EIR.

I think everyone is aware that this is a standard part of the CEQA process. That once an environmental impact has been prepared, the document is considered a draft. It does not receive public comments of matriculation. We are just now reaching the end of that period.

Comments on the draft EIR are due to the city no later than April 14th. April 14th the draft period will end. At that point all of the comments that have been submitted in writing, as well as those made here in this meeting, which is really a two-part meeting, all of the comments that have been made will be forwarded to our consultants to prepare the draft.

They will respond. So everyone is aware tonight. They will be responding to the factual

comments on the EIR.

The comments will be incorporated in the questions and comments. They will be responding to those that are factual comments on the draft EIR.

Those of you that may choose to simply state that you're for or against or whatever it might be, the oil property, the oil drilling and so on, opinions will not be part of this process.

So the most useful comments tonight are those comments that are factually-based, related to the EIR. By "factually-based" you don't have to be a petroleum engineer to make a factually-based statement.

You can comment on your own experience, based on your own experience, your understanding of the impact of the oil project that's proposed, the traffic that will be associated, whatever mention it is.

You are free to comment on any part of this project. Critically though, ideally though, those comments will be related to the Environmental Impact Report as they are discussed. Or if you feel there is a need that it should be discussed in the final EIR.

We are not tonight -- so everyone is clear on this. There's a little bit of the confusion. There are two additional reports. They are not part of the CEQA process.

There's a Health Impact Assessment which the city asked to have prepared. That report, the draft was prepared. That draft has been retracted. We anticipate that sometime in approximately another month there will be a final hearing on the Health Impact Assessment. When it is prepared it will be circulated. It will be available on the city website. I'm sure that the City Council and the Commissioner and others will make the public aware of when that Health Impact Assessment has been finalized.

The other report is the Economic Analysis, the Economic Benefits Analysis, Cost Benefit Analysis. That document is out. It's available on the city website. You can also come to the Community Development Department to get a copy of that. It's also available. It's not part of this CEQA process.

But you certainly should look at that document. If you have comments or questions about that, you can direct those to the city staff.

This is a regular meeting of the planning commissions. It's a special topic of the regular meeting. We're going to conduct it as we did the first half of this meeting with our normal protocol, which means that we are going to invite people to come up.

We're going to limit comments to three minutes.

If you have additional comments, certainly you're free to submit those in writing of any length that you wish. But if you would like to speak for more than three minutes and there's someone else here with you tonight who is prepared to concede their time to you; in other words, they would prefer not to speak, they prefer to give you their time, we will extend your time by two minutes up to a maximum of, say, three or four speakers.

Other than that, the fire department -- I think we actually have a couple of representatives here. We need to keep the aisles clear. We need to stand in the back. We need to make sure that leave a straight fire exit.

I am going to ask, however, that once we begin to receive public testimony, if you would please come up so that we have someone at the podium and then one or two people may be cued up so that we don't spend a lot of time with who's next, who's next kind of thing. Just kind of line up so we keep this going smoothly as possible.

I think all of us are prepared to stay here until every single one of you has commented, if that's what your choice is tonight. So feel free and please do come forward. I think this is an important thing.

The city attorney, the other day it just

occurred to me, commented that what we are really doing here is to enhance public comments. Ordinarily this process is done strictly by writing.

The city thought this is such an important issue. The planning commissioners certainly did. So we wanted to hear from the public so that we are aware of the issues in the EIR, that all of you think are important, as well as what we got as we did our reading. So that's why we are having this as public meeting tonight.

So with that we will move to that.

I do want to make one other announcement since everyone is here. Hermosa Beach is certainly a city with a lot of stuff going on. Obviously the oil drilling process is the focal -- is at the front of this. But I think most of you or many of you are aware, the city is also in the midst of revising our general plan. The city general's plan. That process is ongoing.

We have serious announcements that are in the local papers. You can come to the city website to get more information. But you need to be aware or you should be aware that the general plan is going to begin with the process here. It's going to begin with a series of public workshops dealing with some of the

topics.

The first meeting -- they are all here at 7:00 in the City Hall of Chambers. The first meeting is on April 14th. The topic is climate change and sustainability. Our general plan is going to look and be focused on the urban neutrality and sustainability on environmental issues. That will be the topic the first night.

The second meeting will be on April 21st. The topic that night will be economics and land use.

And then on April 30th the third meeting will be transportation and public health.

And then looking a little bit ahead so you have a head's up, on May 8th we're going to have a community workshop. That will be a 7:00 meeting down at the Clark Building on Valley Drive down by Clark Stadium. So that's on May 8th.

So a quick review; 14th, 21st, 30th, and then May 8th, 7:00 to 9:00, beginning the process of our general plan update. And then there will be subsequent meetings towards the end of May.

All right. With that --

MR. ALLEN: I have one question.

MR. HOFFMAN: Sure.

MR. ALLEN: Say somebody wanted to come up and

speak for their three minutes on some topic that's not related to the EIR. They certainly have that right.

But if they wanted to go on and talk about how Warren G. Harding was a bad president, can somebody yield their two minutes to that person even if they are not related to the EIR?

MR. HOFFMAN: I'm going to trust the good judgment of the residents of Hermosa Beach that no one would defend Warren G. Harding. In the event that they do, you may, in fact, use one of the firemen in the back of the room to carry that person out.

We are going to try to keep these meetings -- or keep your comments -- and, again, you're free, of course, to speak about whatever you wish.

The real value of this meeting is to make comments, factual comments on the content of the EIR. I will use my discretion when I turn the mike off.

All right. One last comment. Did you put a sign-in sheet up?

THE REPORTER: Yes, I did.

MR. HOFFMAN: As you come up, we're going to ask you to just indicate your name, for the record. As you can see, we have a court reporter. She will be keeping track of all the comments and forward them to our consultants.

To ensure that she gets the names correctly and we're able to link these when you make your comments, you will see there's a sign-in sheet there on the podium. Just go ahead and make sure you print your name there so she will have that. We just want it to be in order when the speakers sign their names.

Okay. With that I will open the public hearing. Please come forward. State your name. You've got three minutes. We will be using the timer.

GARY BROWN: Gary Brown, Hermosa Beach since 1971.

As far as the risks go, I think the technology that the EMA is using has probably come a long way from the technology used 100 years ago. I think I'm satisfied with the technology there.

PUBM-26

But it's important that -- and I think as technology improves, I think the risks will go down. Any project has a risk.

But I think it's important to compare the risks. We're looking at taking eight or 900 barrels of oil per day. Punching a couple of holes in the ground, doing whatever they have to do, and we're going to wind up with a site that is better than it is right now.

If you compare that to our Chevron neighbors right up the street, they produce 260,000 barrels per

PUBM-26 continued

day. 50,000 barrels per day come in the form of a pipeline. 225,000 per day come in form of a tanker ship.

The risks involved in that scenario, we can equally have a catastrophe. But when you compare that with eight or 900 barrels per day, I really don't think it's much of a chance. It's very easy, though, to make a substantiated claim and not back up by any reasonable realistic facts on that.

One of the ladies last week, one of the speakers spoke about the possible environmental part, the environmental concern about the birds and the fowl and that sort of thing. I love that. I'm also in favor of not harming the environment.

But what seems to bother me is we have a pine tree wind power here in the state owned by LAPD -- I mean, by the Department of Water & Power. They kill thousands of birds. No one is talking about that. I think we have to compare the risks. Thank you.

MR. HOFFMAN: Thank you very much.

PUBM-27

LORIE ARMENDARING: Hello. Lorie Armendaring, Hermosa Beach.

I support this oil project for a lot of reasons. The most obvious for me is that this is an incredible opportunity for Hermosa Beach to gain a whole

PUBM-27 continued

lot of new revenue. There are many other reasons why I support this project. One of them is the ocean. I love the ocean.

Eight to nine months out of the year I swim regularly between our pier and the Manhattan Beach pier. I often see black tar at the shoreline, and occasionally the sticky tar gets stuck to the bottom of my feet. The surfers know what I'm talking about. It doesn't wipe off very easily.

It's my understanding that this tar is actually oil and comes from the bottom of the ocean. It seeps through fissures or cracks on the ocean floor and makes it way to the surface and onto the shoreline where it then ends up on the bottom of our feet.

It's also my understanding that by drilling for oil we can greatly reduce or eliminate this excess seepage by which some call pollution.

I did a bit of research on this topic, and I found that crude oil and natural gas seeps occur naturally out of fissures in the ocean sea bed and eroding sedimentary rocks. These seeps are natural and are fed by natural underground accumulations of oil and natural gas.

Oil companies use these natural oil seeps by way of identifying potential petroleum reserves. That's

PUBM-27 continued

what I found out from my own research. If that's true, then we've got oil, and I say we should drill.

I read quite a bit of the 1,000-page draft EIR. A lot of it, but admittedly not all of it. I did search and scan the entire report, and I did not see anything written in the report about the oil seepage topic.

I would love to see the final EIR address this and how a proposed oil drilling project will affect this naturally occurring phenomenon. Thank you.

PUBM-28

DEAN FRANCOÌS: My name is Dean Francoìs. I'm a South Bay resident.

As far as the oil seepage in the water, there isn't a shred of evidence that drilling is ever going to stop any of that. I used to work for Mineral Management Service and they monitor off for oil drilling. So this whole idea that we're going to solve our problems by drilling for oil is just ridiculous.

I submitted comments -- scoping comments. I work with the Sierra Club and other environmental organizations to provide scoping comments. So a lot of that has been provided. The draft EIR does not address the specific comments that people took their time to write in.

I've been through the environmental process in the past. And usually draft EIRs address all the

comments that residents send in.

I emailed Miss Townsend here. She replied that it will be in the final EIR. I think that's a shame. It should be out here ahead time in the draft.

I don't know if something else can be done before the draft is final, before the final comes out. It's a shame to see that our comments that we wrote in are not being responded to until the final EIR comes out.

PUBM-28 continued

Having said that, I think it's -- the EIR in itself, the draft I've seen is actually remarkably thorough. There's a lot of good evidence that residents can rely on to determine that we don't need oil in Hermosa Beach.

I've seen other EIRs come out and they're so pro-developed and anti -- citizens trying to get their fair share of what needs to be done. This one is well-rounded. There are clearly alternatives, and alternatives including not drilling at all, addressing the EIR. And that's a good thing.

But having said all that I think tonight this Planning Commission needs to take the strongest position possible to recommend that the citizens agree with the payout so that we do not drill Hermosa Beach. I think that's the most important thing that can be the result

PUBM-28 continued

of this meeting tonight. Thank you.

MARTHA LOGAN: First of all, Panel, thank you so much for being here. I'm sure you have other things that would you rather be doing tonight. And specially on a topic like this, we are so appreciative that you are willing to take our spoken comments, as well our written. I just want you to know we do appreciate that. Those other things coming up sound very interesting. I have to start making Tuesday nights down here a little bit more common.

PUBM-29

I would like to make a point of clarification about the structure of the DEIR. By the way, this flyer came out. I thought it was very helpful. I don't know if it had anything to do with the city, but directing us to certain sections.

I as a lay person have never looked at a EIR. I didn't know what one was. And I'm sure there are a lot of other people out there that are in the same position.

So I look at this daunting document of a thousand pages or so. I did what many people do. I looked at the table of contents. And I looked for something that said like "conclusion" or "final comment." Something like cliff notes. I wanted to make my life a little bit easier.

PUBM-29 continued

So in the DEIR I found out it will take you pretty much to chapter six or section six. This is what I found.

"6.1.1. No Project Alternative. Under the no project alternative the proposed project would not be built, and the maintenance yard would remain in its existing location with no new maintenance yard being developed."

Now, if I just scan that, I'll think okay. It's not supposed to do that. But then I started reading more. And I wanted to read a couple of sentences from here that indicated to me that this is a good idea to do the drilling.

"If oil production does not occur in this area, this may result in continued importation of crude oil from overseas that would otherwise be produced locally."

"There are no crude oil pipelines..." I did not know that "...that bring crude oil into California. This means that the only source of crude oil can be, we find, crude oil in the end are from California production, from Alaska production brought here through tankers or rail transports."

I decided to do -- because of the daunting no project alternative, I decided to do a little research. And I found this. Section 6.1.1. This comes up all the

PUBM-29 continued

time.

"Of the six alternatives analyzed in this DEIR, the no project alternative would prevent all of the unavoidable significant impact that would occur with the development of the proposed project. On that basis, the no project alternative would be identified as the environmentally superior alternative."

That was written in 2000 for the Civic Center Metbox.

(Member of the audience offered their time.)

Thank you.

"On that basis, the no project alternative would be identified as the environmental superior alternative."

That was from the 2000 -- the year 2000 from the DEIR, the Civic Center Metbox Development in Manhattan Beach. The status of that project, as we all know, is completed.

Over the 150 that I examined this week, there were hospitals, schools, dams, public transportation. I searched in vain in the DEIR to find something that would say the preferred alternative is to proceed with the project.

I would like to suggest that in the documents somewhere it says that the whole point of the DEIR, and

PUBM-29 continued

this may be all technical people understand it. I'm not one of those. I'm sure there are a lot of people reading this that don't understand it. Even one shovel of soil you turn over can impact the environment.

Therefore the Environmental Impact Report, generally speaking, come up with the no project alternative at the top of the list.

So I would just like people to be aware of that. I would like to see that somewhere in the report. And I just encourage that we be aware of that.

Again, thank you very much. Martha Logan.

THE REPORTER: Martha Logan. Thank you.

PUBM-30

ANNA VITALI: My name is Anna Vitali. I live at 531 West 2nd Street.

Yesterday I called a client of mine. I'm helping this client construct a strategic business plan for capital raise. The capital my client is raising will be used for oil exploration and extraction per the oil standards of Kentucky.

Oil has been good to Walt Wilcom and has made him a millionaire many times over. I sincerely hope that our work together continues to see success in this line of business.

So I called Wilcom because I wanted to know what someone who loves oil, someone who truly loves oil

has to say about our little town of Hermosa.

I called him also because apparently having a degree in journalism, with an advanced degree in finance, and about 30 years of experience working with the English language does not qualify me to understand the EIR report as written.

Wilcom with his typical candor and warmth advised that there are enough regulations in the U.S. oil industry to likely prevent something serious and catastrophic from happening here.

PUBM-30 continued

He then said there was absolutely no way to mitigate the smell of oil in our town. And that if there is any sulfur at all in the crude, our town will smell like rotten eggs. And there is no way to mitigate that either.

Now, in my line of work I'm often asked to conduct such activities for my clients. They want to know at what point does the suspension really get exciting.

If my client were Hermosa Beach, I would have no way to model the smell of rotten eggs in the breaking of the analysis on this project. The reason for that is simple. I think fresh air is priceless.

But in that frame of mind I would encourage every resident to continue to feel on this sensitive

PUBM-30 continued

issue, to find their number and name their price. To name their price they would need to be paid in order to feel like they and their families are breaking even on the cost of living in the stench of an oil town.

For some maybe that's just a nice seat at a hockey game. That's fine. Because we all have a price. So figure yours out.

But compared to the terms of lease agreement with DMB just to see if you're breaking even. Thank you.

PUBM-31

PAULINE MILLER: My name is Pauline Miller, and I've lived in Hermosa Beach for 10 years. I'm at that property for 10 years; in South Hermosa, and eight in North Hermosa.

I would reiterate what the person before me said. Most people have no idea what EIR is. I'm not a professional in that field. But since 1986 I have been involved with the property line. I've been buying and selling, and with full commercial and one residential EIR. So I pretty much have sort of a grasp on the plan.

Most people do not know what the EIR is. They don't know it's in an Environmental Impact Report. They haven't a clue. Okay.

I also believe that A and B indulge in -- I call it deceptive in advertising with the flyers and the

ads. A lay person even got me on one until I read it properly.

If a lay person looks through it, it all seems hunky-dory. And then there's a little verse at the bottom of the flyer that's actually true, which they actually have to put in there. Most people don't notice it.

The city and yard replacement is going to have to be preplaced. Has anybody costed that out yet? Maybe I missed the information. Maybe I didn't. I haven't seen it.

PUBM-31 continued

When they are talking about giving money to the schools and to the community, are they talking about net profit or gross profit? There is a huge difference. And I bet the council can do very well in that profit, the net profit. They cannot on gross profit.

If there's an earthquake, and we have been having quite a few lately, I don't even think anybody however much experience they have in matters, et cetera, et cetera can forecast what is going to happen. Look at Japan.

I also believe that the oil company does not have adequate liability insurance. If anything happens, its corporation, they can go out of business and, you know, people don't get anything.

I also object to the fact that the children from the local schools are being taken to this historical site. I don't have children. I heard this from children and my neighbors.

They are being shown photographs on the drilling that took place I guess decades ago. They don't understand the specifics. They're children. They're too young. They don't know. But they say, "Mommy, Daddy, we're going to get all this money for the schools." Most of the parents don't investigate. They take it as given.

PUBM-31 continued

I don't know if anybody has noticed the street damage on Herondo. They have huge containers from King Harbor to Herondo to PCH, where they're taken to Chevron Oil. The damage in that one evening, two evenings is just phenomenal.

MR. HOFFMAN: Go ahead. You've got two more minutes.

PAULINE MILLER: Thank you.

Why did the CEO buy a club in North rather than South Hermosa? Just a comment. It's a few doors away from me. I'm not going to be affected, but I think the city will.

And why -- again, there is no council member here. But I would like to make this statement on the

PUBM-31 continued

record. And the fact that why some of them will not state where they stand?

Is it because they don't want to lose votes? Some of them will. I know that I and probably a lot of other people if -- I will not vote for somebody who -- I am a citizen who stands -- I don't know what they stand for. I find this very, very disconcerting.

For my last statement, these little drawings of the site that A and B has taken, all of these; this, that and the other. But one thing that seems to be missing is that 25-foot whatever it's going to be. It doesn't seem to be in there. That's it. Thank you very much.

MR. HOFFMAN: Just for the record, specially for those of you who may be watching at home, Councilmember Barragan is standing in the back of the room.

PUBM-32

JOHN LANG: Good evening, Commissioner. I live in Hermosa Beach. My name is John Lang. I live at 632 Ardmore, Hermosa Beach. This is my daughter, Nela. This is my wife, Denise. She's a kindergarten teacher in Hermosa Beach.

MR. HOFFMAN: Let me ask you to speak into the mike.

JOHN LANE: Sorry.

PUBM-32 continued

Nela goes to PK. And that's my son Talen. We just got back from Legoland for spring break. So we're super stoked we could make it.

We live 98 steps from the proposed site. 98 little steps. I've got small feet. So it could be closer. It's not exact.

But I just wanted to come here and give a face to the community that lives down in that area. We are just one but a dozen families with children that live in this high-risk Red Zone according to Health Impact Report.

I spent my whole life living from one wall to raise my family in Hermosa Beach, and also to buy a house. We just accomplished that dream 18 months ago. So we're super excited about that.

It's pretty scary. Because you can see the proposed site from my daughter's bedroom. She overlooks it. In the morning she can see squirrels. She can hear birds, and she can hear crickets. But now she may see the site and hear the drilling and all the other stuff that comes along with that.

A lot of people refer to this area as the industrial zone. My real estate agent refers to it as the tree section. As a Hermosa Beach native, it's Hermosa. Oh, thank you. It all the same to me. It

PUBM-32 continued

1 really doesn't matter what you call it.
2 I just really want to take this opportunity to
3 give a face to the people and the families that live in
4 this area. I encourage you guys to come down and sit on
5 the bench between my house on the green belt and next to
6 the proposed site.
7 You can count the thousands of people that walk
8 through this area, this high-risk area on a daily basis.
9 These people that I'm referring to, these are Hermosa
10 Valley students walking to and from school, joggers, dog
11 walkers, pregnant women, babies, and the elderly. It's
12 frightening how many people -- how high-traffic this
13 portion of the green belt is when we're referring to the
14 high-risk Red Zone.
15 You know what, guys? Thank you for your time.
16 We just wanted to stop by and say hello to everyone.
17 Let you see the families that will be impacted.
18 We're off to the big wave award that's right up
19 the street from the community center. If you guys get
20 out here early, come join us.

PUBM-33

21 LORETTA SPARKS: I would like to give a face to
22 the elderly. My name is Loretta Sparks. I'm a resident
23 of 39 years. I live on 8th Place in the 600 block. I'm
24 one house short of the corner. And I think I live in
25 that impact zone.

PUBM-33 continued

I'm very concern. When I first moved to Hermosa the railroad was still running through once a year to keep its easement. We didn't have this beautiful green belt. We had just a bunch of pretty land and the railroad ties. And I have watched the city morph into something beautiful.

There are a couple of things. I mean, there are so many things about this that disturb me. There are two things I'm going to speak about. Someone already talked about the stench. So I don't have to talk about three things.

If I get up in the morning and I can smell -- on the days you can smell the ocean, you know we live in Heaven. And I get to wake up probably smelling sulfur, being around that, that does not sound like where I want to live.

I'm also concerned about a couple of things. We do have an enormous amount of young children in our area. So when I first saw the proposed traffic routes and the times that were proposed initially, I was concerned as any mother, grandmother would be that children who are walking to school would have a high volume of children walking to school every day in our area.

So I understand having spoken to people who

PUBM-33 continued

know these things better that we agree to change their routes to I think it's 9:00 and 3:00 instead of 8:00 and 5:00. I'm not quite sure how that will impact on the farmer's market. Maybe it's going to be replaced. I don't know.

But we're going to three huge trucks an hour. Three huge trucks an hour coming down Artesia, PCH, Pier, left on Valley. And my little house, when that train used to go by 39 years ago, shook like it was next to L in Chicago. Now, I'm trying imagine what that's going to do to my little house in my little neighborhood and the children who are walking to and fro. It's terrifying.

Not to mention the long-term studies that have been done on the rural sites in the residential areas. Read the book from Beverly Hills High School. 20 years later the impact that it has. Residents and teachers and the students are suffering 20 years later. How do we gear up for that? So obviously I'm not a proponent of the wells.

One other thing. I know it's not fracking, but water infusion wells. If you read what's happening in Oklahoma with these water infusion wells, the high incidents of earthquakes have increased more than 100 percent. It's stunning. Google it. It's all

PUBM-33 continued

there.

It's not fracking. But they've got to get rid of this toxic waste water. Where is that toxic waste going? It's being injected into your -- and I'm out of here.

MR. HOFFMAN: Thank you.

KARL GROSSMAN: Karl Grossman. 671 Valley Drive. Right down the street.

I hope to be the guitar teacher for those kids that were here someday.

MR. HOFFMAN: For everyone --

KARL GROSSMAN: I'm talking to you.

MR. HOFFMAN: It's because the camera is on you.

KARL GROSSMAN: Okay.

MR. HOFFMAN: We need to keep people's faces in this direction.

PUBM-34

KARL GROSSMAN: Couple of fact questions. I would like to know the water usage for the drilling operations, and that's per barrel or per day or per week? What would you like to qualify that with? The water usage, fresh water usage? What are we talking about?

I would also like to know the electricity usage for this drilling operation, all phases. And you know

PUBM-34 continued

we have problems with our electrical. There's a power shortage, I don't know, once a month? When is it? Every season at least, bang, the power goes off. So I would like to know that.

And the last thing, to make it short. Let somebody else have their time. I would like to know who gets to write the voter proposal for this on the ballot? I would like to know who gets the rebuttal? And who gets the counter-rebuttals on that verbiage?

Because I don't think it's fair to have the verbiage in there that says anything about the money being spent for schools or the money being this or that or whatever.

So I would like to propose that that be very highly scrutinized on who gets to write that and what their qualifications are and who gets to write the rebuttal. Thank you.

MR. HOFFMAN: While she's signing in, again, some of you in the back there, again, we have to keep the -- I know we've got a member of the staff there. But we need to keep the aisles clear for ease and exit. Thank you.

PUBM-35

CINDY SMITH: (Difficult to hear) I'm Cindy Smith. I live on Denison Place.

I appreciate the opportunity to share my

PUBM-35 continued

opinion in a respectful forum like this.

MR. HOFFMAN: Thank you.

CINDY SMITH: First of all, I want to thank costco disability (phonetic) for drilling for oil. I don't think it's a gross exaggeration to say that they may actually save Hermosa from bankruptcy.

As you well recall, we're heading toward the penalty phase with McPherson, and McPherson was asking for hundreds of millions of dollars, hundreds of millions of dollars that Hermosa Beach does not have.

The fact that we have limited that liability to 17 and half million is very important for our town. That should be a sense of appreciation. I know that's hard for people who actually haven't a sense of appreciation. But I consider this proposal.

What we have is a classic Cost Benefit Analysis that's comparable because there are a lot of unknowns and a lot of things that are difficult on both sides of the equation.

My fear is that it's easy to be risk-reversed and overweight at the front-end cost. There is no doubt that drilling for oil is construction. It will be noisy. It will be smelly. And there will be a lot of traffic on the roads.

During steady stay, however, I don't think it's

PUBM-35 continued

a risk annoyance. But how bad do these up-front costs have to be to offset the present revenue stream?

I have two points to make about that. We all take risks every day. We drive cars. We fly airplanes. We ride bikes on the shoulders of busy streets. People who are more coordinated than I go surfing. So we all take risks. We do our calculations. We know it's worth it. And that's a mindset I would like people to consider.

The second point I would like to make is there's a lot of money on the table. I know people don't want to hear about the money, but there's a lot money on the table. Properly stewarded the City of Hermosa Beach could really be transforming things for the revenue stream.

We can put money in tree issues, underground utilities. We can put them in storm drains that better protect our ocean. Whatever it is the council and citizens can agree on.

So this really is an opportunity for Hermosa. And I understand it's a very difficult decision.

So in summary I would encourage my fellow Hermosans to really honestly and thoughtfully weigh the costs and the benefits. Thank you.

MR. HOFFMAN: Are we done? Please don't

hesitate. When you get toward the end, if you want to come up we can do that.

DAN RUDIN: My name is Dan Rudin. I live on 4th Street in Hermosa Beach. I'm a long-time resident of Hermosa Beach.

I was born and raised in L.A. I'm a native here. I remember the early oil wells addressing the EIR, not so much the politics tonight.

My impression was I was very undecided about this. But having consulted with the oil company and trying to learn more about the process, my impression is that the technology has changed a lot for the early oil wells in Baldwin Hills that I grew up with.

PUBM-36

I'm also looking at -- part of the EIR has dealt with the police and fire department. Within the years I've gotten to know the fire department a little bit and I've been able to talk to the police.

My impression is this: Fiscally we have been hurting a little bit in our safety and concern with the community. It would be a great benefit to the city in terms of safety to have an influx of cash.

The EIR addresses that it could be more -- how can I say this? Better financed and better supported, the whole project, if we had better policemen and firemen.

PUBM-36 continued

I would like to see Hermosa become a little safer for older people, for younger people, for everyone. I think it would be an enormous benefit, sort of a corollary to the EIR. It would be safer and better for the community to have the sewer systems that we're addressing. The streets, they are in terrible condition, the parks, all of these things benefit in some way to make the city a more beautiful and a more valuable city. Thank you.

PUBM-37

LISA SANTORA: Hi. My name is Lisa Santora. I'm a family physician. I'm a mother and a resident of Hermosa Beach. I live at 217 Valley Drive.

What's your name? Would you like to say your name?

ROCCO: My name is Rocco.

LISA SANTORA: Where do you live?

ROCCO: In Hermosa Beach.

LISA SANTORA: What's your address?

ROCCO: 217.

LISA SANTORA: What street?

ROCCO: Valley Drive.

LISA SANTORA: Do you have anything to say? You can tell them that. What would you like to say? Okay. I'll say it.

This is your front-end cost. We live right

next to South Park. We live by where the traffic will be going through the Red Zone for five to six years of our lives. That's why I'm concerned as a mother.

I had been working on the ground flare project, the traffic as mapped out the Peace Bridge. It does have an impact.

It concerns me as we're making great strides in Hermosa to become the best little beach town that we are, come to our best efforts to really improve the health of our children.

In reference to the environmental --

ROCCO: I want to say something.

LISA SANTORA: Now you can say it.

PUBM-37 continued

ROCCO: I don't like smoke stacks.

LISA SANTORA: In reference to the Environmental Impact Report, I think it's important to know that there's -- of the 1,096 pages, there's 153 references to health. There's one reference to well being. There's two references to quality of life. Three references to the word vulnerable. Two make reference to fish, and one reference to storage facility. Two references to children's health, and one reference to the elderly. Multiple living will include health, multiple references to long-term health.

(HER SON ROCCO TALKING AT SAME TIME. MADE IT VERY

PUBM-37 continued

DIFFICULT TO HEAR HER.)

So as this is a proper -- singular report to have a full impact of the health impact of this project on our community. I think it's important to realize that it's not going to give us information to make an informed decision. So thank you for your consideration.

MR. HOFFMAN: While we are doing this, I just want to take a moment. Part of the reason that so many of you are saying you're totally unfamiliar with the EIR, ordinarily this process is going to an agency, the City Council Planning Commission, to some governmental entity that's going to make a decision.

So the Planning Commission sees the EIR, the City Council sees the EIR, other state and local agencies see the EIR.

What's different is, I think everyone recognizes, you're going to make -- we're going to make -- not the Commission, but us as voters and all of you, we're the ones who are making the decision.

So we've got a technical document that ordinarily, like I say, go to people who are familiar with it. In this case it's coming to all of us.

I think that's why all of us are so happy to see so many of you here as there are. We also owe it to the future of our community and these kids to read the

DEIR and to make an important decision.

So I think I speak for everyone when I say thank you and appreciate you coming forward and making comments about this. So thank you.

RYAN UEDA: (Very difficult to hear and very difficult to understand) Good evening. My name is Ryan Ueda. I'm a member of a law firm. I'm speaking on behalf of South Hermosa Beach oil. I will be addressing two parts.

The first is the fact that the project as proposed will violate the L.A. fire code.

The second is that any oil spoil will irrevocably contain protection and character of Hermosa Beach.

PUBM-38 The citizens of Hermosa Beach are going to be voting on this project in November. The citizens need to be equipped with enough information in order to evaluate the project. Currently the citizens are not provided with that information.

As proposed, it's acknowledged that the project site will violate certain standards, including the L.A. County fire code. The DEIR, draft EIR, (phonetic) pertains to the property line in order to mitigate some other issues (UNCLEAR) because of the fire code.

The environmental (UNCLEAR) property line the mitigation implemented should be evaluated for the citizens of Hermosa Beach to consider. The citizens of Hermosa Beach have not been informed whether the project design changes are in compliance or whether additional project design changes will be required. If the project design changes to bring this project into compliance, the potential impact of those changes also need to be evaluated.

PUBM-38 continued

Before casting your vote in November, the voters need to be given the information they need to understand what the environmental cost and structures, but what the actual project design will be.

The second point is we also think that there could be more knowledge in the schedule for catastrophic environmental impact.

When you come to Hermosa Beach today we walk along the strand. And as an outsider, me, it was disheartening to think that the heart of the city would be put at risk for this project.

The DEIR correctly identifies that the proposed project could create impact -- I'm sorry. Environmental accident could potentially impact resources.

We agree that meeting with all the (UNCLEAR) that will be implemented there are going to be

significant environmental impacts.

However, the project can be better structured, damage that can be caused by accidental waste, oils, gas or other contaminants.

Further, the project more importantly evaluates the cost to respond to the research of oil and discharge of hazardous material, including financial impact to the (UNCLEAR) and subsequent response actions.

For example, any negative environmental impact on entitlement will irrevocably harm the recreational quality of Hermosa Beach.

PUBM-38 continued

Secondary, total perception in corresponding economic impact should be addressed in the final EIR.

The citizens need to be fully informed by the true and full cost of an accidental leak. In keeping with the goals that are in front of the public, the project should further note that progressive (UNCLEAR) community alert in education to supervise parents, students, staff in the nearby schools (UNCLEAR) information about project site emergency corrected actions.

Because of the potential for catastrophic environmental impact, the citizens of Hermosa Beach need to be given sufficient information to be able to understand and analyze the environmental impact before

PUBM-38 continued

it becomes catastrophic. A catastrophic spill could ruin for generations each life style as one of the guiding principals of Hermosa Beach. Thank you very much.

PUBM-39

ANDRE SHARP: Good evening. My name is Andre Sharp. Just let me write that down right here. I live on 6th Street off of Ardmore in Hermosa. I'm a long-time resident.

I want to agree with a couple of points that the earlier speakers made. The fact is that I'm sure the technology is better than it used to be.

Nonetheless the counterpoint to that is that there has not been a single oil drilling operation that has not had an accident.

The lady who spoke two speakers ago indicated that she is willing to take a risk because she takes risks every day. Which is fine. So do I. When I get up in the morning that's a risk.

However, I don't need to have somebody else put me at risk. That's what the oil drilling is doing.

PUBM-40

J.R. REVICCKY: Good evening. My name is J.R. Reviccky. I live in Hermosa Beach on 6th Street as well.

I sat on the City Council for 16 years, and lived through the McPherson debacle. It started before

PUBM-40 continued

I got there. It was still going when I left.

But in reviewing the EIR I want to give you a little history on what happened and how we got into this lawsuit to begin with.

The city did their own risk analysis called the Mercer report. In the Mercer report there was a nice little graph there that had probabilities of accidents happening from 35 years of drilling on the site.

For injuries off-site the probability was one in 7,000 in the 30 years of this project. Actually one in 700. And for fatalities off-site, for the length of the project it was one in 7,000. Look at your poker odds and do the math.

I don't see any of this -- anything in the report as it's written now that I can compare to the last report that City Council decided that this project was too dangerous to be in the City of Hermosa Beach. It needs to be in correlation between the two EIRs so we can compare what happened then and what happened now. I also don't know exactly what the difference is in technology between then and now.

The question that I have asked some of the people is: Tell me what's going in the production between then and now. What's changed? And the answer that I got was there's nothing earth-shattering.

PUBM-40 continued

So give me something that I can compare with the last time we had this project and something in the EIR that I can relate to to decide for myself whether or not I think this project is safe enough. And the rest of the voters can decide by themselves whether or not this project is safe or not. Thank you.

PUBM-41

JOHN CARLSON: Good evening, Mr. Chairman, Commissioners. My name is John Carlson. I lost my voice. I've been a resident of Hermosa Beach for eight years. I'm a relatively newcomer compared to the rest of you.

My effort here -- a couple of years ago I started hearing about the McPherson lawsuit, as the gentleman mentioned. I was perplexed to hear that a few years later the City of Hermosa Beach had lost that lawsuit and had a liability of $275,000,000.

I'm not that good at math. But realizing that we have a budget of 27.5 million, the liability 10 times that we've got a big problem.

You can't reduce enough city services. You can't raise taxes enough to offset that liability. So you have to declare bankruptcy. That didn't look good. So I was kind of down, a little pessimistic.

Then I heard A and B National Resources had come into the picture. They had negotiated a settlement

PUBM-41 continued

agreement with the City of Hermosa Beach. Not only to wipe out that liability but also to provide certain amount of income, and for the next 25, 30, 35 years. So I was now back getting positive, optimistic again.

And then six, seven weeks ago I had a young couple come to my door. I opened my door, and they said, "What do you know about drilling, the proposed dripping in Hermosa Beach?"

I said, "Thank God we're not going to have a lawsuit. We're not going to go bankrupt. I think we're in pretty good shape. We're are going to have annual money coming in."

I was told by these people, "You obviously don't know the facts. You're not aware of what's really happening. Do you realize there's going to be at least 34 oil rigs in the oil platforms a few hundred yards off shore? Do you know what this is going to do the marine life? To the surfers? To the voters?"

I said, "I can't imagine all that."

And then they talked a little bit about the maintenance yard. So I said I better go look and do some research on this.

Of course, we all know -- and you people who are here, I commend you all being here. Because these people know what's going. But the average voter in

PUBM-41 continued

Hermosa Beach does not.

When I got into it, there was nothing that you're going to see offshore. We all know that. The pipes coming from onshore to the ocean will be going 2,000 feet under the floor of the ocean. So obviously there's going to be no affect to the surfers, marine life, or voters.

So a very nice lady spoke here last week. She mentioned -- she mentioned, first of all, the Exxon Valdez fiasco up in Alaska, big oil tanker spill. She also mentioned a couple of tanker ships that collided in Galveston just a few weeks ago. Of course, we all know about the Gulf of Mexico spill a couple of years ago. It was a disaster.

These are all tankers. These are ships that moving are around, running ashore, running underground. Nothing comparable with the piping that we're talking about.

If people are really concerned about oil leaks, seepage, oil leakage, we should just look up the road here a couple of miles. These tankers offshore in El Segundo, as I mentioned earlier, are pumping 250,000 barrels of crude oil into that Chevron station, the oil refinery every day.

We've all walked along the shoreline here in

Hermosa Beach. We get the tar on our feet. That's from oil seepage.

Now, we checked in -- these pipelines are going out in the ocean here. They're seven inches. They're encased in another eight and a half inch pipe.

So if something happened to first pipe, there is still a second pipe. If something happened to the second pipe, it's almost impossible. The oil technology of these days, they can shut off that oil spill in seconds so there is not a big danger of a spill.

PUBM-41 continued

Now, Santa Barbara pumps crude oil into the refinery there in Santa Barbara. They estimate that there's about a 274-barrel a day loss seepage into the bay. But they said it's negligible. It's insignificant.

We're talking about no seepage here. So if people are concerned about oil seepage and so forth, go to where the tankers are not where there is oil drilling.

There are more than 765 wells from onshore going offshore in California. There has never been a problem.

Now, how can people who have oil wells, active oil wells in their communities; Torrance, Redondo Beach, Long Beach, Huntington Beach, Newport Beach. Ask them

PUBM-41 continued

where they would be without the oil revenues. These are very significant revenues.

Their risks are much greater than what we are talking about here now.

MR. HOFFMAN: I'm going to ask you to wrap it up. You have got two minutes.

PUBM-42

JOHN CARLSON: Express my concern? My concern is we are going to be getting -- we've wiped out the 275,000,000 liability. Right? That's a fact. We're going to be getting, what, 30, some $40 million annually into the city.

My question is: How are we going to spend it? Is anyone talking about that? Has anyone brought this up? Who is going to make those decisions? Is the Planning Commission? The City Council?

The City Council. Are they going to appoint an oversight committee to help them? Are we going improve the firefighters? Hire more police, more teachers?

How are we going to spend that money? Does anybody know? Does anybody know how we are going to spend that money?

We have an opportunity here.

MR. HOFFMAN: Thank you very much.

PERSON IN THE AUDIENCE: I'm sorry, Mr. Chairman, could we ask for a little respect for

these speakers so we don't --

MR. HOFFMAN: With all due respect to everyone, I personally would appreciate if we all remember we are residents of the City of Hermosa Beach. One of the warnings that was given about this whole project in the Health Impact Assessment that I'm not supposed to side division within the community. I am one of many who look at that's not the case, regardless of the outcome of this proposal.

PUBM-43

DAMON NAGAMI: John good evening. Damon Nagami. I'm a senior attorney with the Natural Resources Defense Council. I'm involved with the National Environmental Organization with more than 1.4 million numbers of activists, several thousand of who live in greater Los Angeles area.

Thank you for this opportunity to comment on the draft EIR for the oil drilling production project.

We have been actively engaged in the CEQA project and we will be submitting written comments before the deadline. I just want to make some brief comments here tonight.

I think everyone knows that this project has had a long and complicated history. Part of what's come out of this is that we don't have garden variety CEQA process. I think Commissioner Hoffman nailed it.

The process of the settlement agreement set up makes the elector, the voters of Hermosa Beach the ultimate decision makers on this project.

Among the many purposes of CEQA are to inform decision makers about the public about the potential significant environmental impact of the project, identify ways that the environmental damage can be avoided or reduced, and prevent significant and avoidable damage to the environment by requiring alternatives or mitigation measures wherever feasible.

In other words, the purpose of this EIR is to let the voters of Hermosa Beach know what project's significant impacts are and whether those impacts can be avoided or mitigated so they can be educated about the project when they vote on it.

PUBM-43 continued

We have some concerns about the EIR's adequacy and informational document. And we will raise those concerns and written comments with the attempt that the document will come out stronger in the end.

We would also note, however, that the draft EIR accurately finds that this project will have significant and unavoidable impacts in eight different categories; esthetics, air quality, biology, hydrology, land use, noise, recreation, and safety and risk upset. This rightly led the proposed project not being chosen as the

PUBM-43 continued

environmental superior alternative.

Even if you are not familiar with the EIR, there's a one-page chart where all of this is laid out in the EIR. You can see that all these significant and unavoidable impacts are there.

Let me repeat that. Eight categories of significant and unavoidable impacts. An enclosed project is not environmental superior alternative.

If I were a Hermosa Beach City Council member or a Planning Commission member, as an elected official with the project being cited, I have serious concerns about this project.

But in the end neither the Council nor the Planning Commission has the final say. The voters do. And I think this EIR gives the voters a lot to think about when it comes to the impact of this project. Thank you.

PERSON IN YELLOW SUIT: (Did not sign in, nor said one word.)

PUBM-44

JIM SULLIVAN: Tough act to follow. Name is Jim Sullivan. I live on 8th Street. I'm a 32-year resident of Hermosa Beach.

I am here this evening to speak to the issues of addressing the EIR. I'm also here to speak to the oil recovery project, and to explain why I believe it

PUBM-44 continued

presents a unique opportunity for Hermosa Beach to fund the city's critical infrastructure project, to support our schools, and maybe most importantly to secure our city's financial future decades to come.

But first I would like to address some of the city's needs that I have compiled from a couple of different sources.

From Phase II of the Community Dialogue Finance Subroot Report, I learned the city has currently has 29 filled positions; such as assistant fire chief, community resources director, human resources director, Public Works inspector, three police officers, three paramedics, plus assorted engineers and mechanics.

I learned from this same report the city has between 108 and $117 million in unfunded capital improvement projects. Such as new sewer, costing $14 million. Storms and water run-off upgrades for a million. Park upgrades, 15 million. Community center comes to 9 million. New police station, 11 million. Fire station, five million. City hall, 11 million.

The same report says the city is currently spending a million dollars a year, although Public Works says it's only 600,000, just to stay ahead of the sewer system deterioration to prevent what is euphemistically called spillage incident. Or in laymen's terms, law,

PUBM-44 continued

untreated sewage seeping out of failed sewer lines beneath our city.

Mind you, none of this money, this million dollars, currently addresses the problem. It is our annual million dollar Band-Aid expenditure.

Coincidentally, just today the Beach Report published on its front page a story about the report presented to our City Council this past Tuesday evening by the International City County Management Association, or ICMA.

By their consultant wherein the report recognizes hiring more police officers and firefighters. I quote from the story. "The ICMA recommended 10 additional police officers, dedicated code enforcement personnel, and technology upgrades for the police department."

On the fire department side, the ICMA recommended a civilian fire marshall perhaps to be shared with Manhattan Beach, a new division fire chief for training and support purposes, six additional firefighters and paramedics to achieve maximum service levels.

ICMA also noted a need for new emergency services building in the near future; meaning, fire department, police headquarters.

Lastly, the report goes on to say it will now be up to the department to determine optimal funding and staffing requests backed by the study's finding. The City Council would approve the request, and the city's residents to determine service levels they expect.

If the budget -- and I am quoting here. "If the budgets do not increase it may be contingent upon residents, and the city can lose its level of expectation." Okay. Fair enough.

So now that these needs have been laid out, what's next? What's missing aside from the money to accomplish any of this?

PUBM-44 continued

Leadership. In my opinion, the city needs leadership. Leadership from, you, Planning Commission. Leadership from the City Council. Leadership from city staff. And most importantly leadership from the members of our community.

We need people willing to stand up and speak the truth, willing to confront the issues, willing to take unpopular stands, willing to be criticized fairly and unfairly, willing to let go of the idea that everyone will be thrilled by the difficult choices that must be made. And among our City Council members the willingness to forego the election.

I haven't exactly gotten to the EIR. I not

PUBM-44 continued

sure the EIR addresses any of what I brought up. But it should. Thank you.

MR. HOFFMAN: As we've got some new folks lining up, when you come up please remember to sign your name here so that we can keep track of what you say and what's recorded. Thanks.

BRANDON GERSH: Thank you for having me. I'm an outsider. I'm from Woodland Hills. I have no home surf break, but I would like to think of Hermosa Beach as one of my home surf breaks.

MR. HOFFMAN: I would like to say your welcome but...

BRANDON GERSH: It's okay. I understand.

PUBM-45

I'm also a law student. I am concerned about the EIR and some of the points that are raised and not raised.

My first concern is, the EIR mentioned that fracking will not occur in the A and B project. Additionally, the EIR also states that redrilling is unlikely, and that a maximum of 30 redrills will concern.

My concern is that in the event that things change, A and B perhaps needs to expand the project, that the community will not have an opportunity to oppose this in the event that a subsequent EIR is not

PUBM-45 continued

granted.

However, I would like to see the final EIR address this and perhaps state this fracking or redrilling -- the number of redrilling will be limited or that the approval would be conditioned upon those things not occurring.

Additionally, I'm also concerned that past wells are not considered as a cumulative impact in the EIR. This is a major concern because some of the old wells such as stinted No. 1 is about 90 -- 80 to 90 years old. It could be decaying, and we could have vertical migration into the ground water.

Additionally, I'm concerned that the Herondo Street passageway that's mentioned in the hydrology section, 4.9, does not have much information about the capacity it will have when their alternatives will have greater capacity or better technology available. So I'm asking that more information be provided on that.

Lastly, the EIR mentions that as many as 30 redrillings will occur. However, it does not provide an explanation of this process, what the impact of the redrilling will be.

And those are my comments. Thank you for having me here.

PUBM-46

ROGER LIGHT: Hi. My name is Roger Light. I'm

a clinical neuropsychologist. I'm actually from Redondo.

But what I want to talk about is air pollution and the affect it has on health. I was talking about this study of the brain and human behavior after impact of neurotoxins on the brain.

Unfortunately air pollution doesn't know city boundaries. It will go everywhere.

Couple of things. When I was in grade school 39 on the years ago, autism was about one in a thousand. It's now one in 68. Big part of that is the impact of neurotoxins on the development of fetus in-utero.

PUBM-46 continued

Yes, the methane leak and all the other kinds of air pollutants that you will get from drilling are not the most severe air pollutant there is out there.

But our friend here with the gas mask, we may not all be that far off to consider that kind of protection for our pregnant women that are subjected to air pollutants.

I just want you to keep in mind that brain development in the elderly, dementia, things such as that, and all of these things have been shown to be associated with exposure to air pollutants such as they come from projects like this.

And I'm not talking about the smell. I'm

PUBM-46 continued

talking about the toxin that will be emitted by the drilling. So keep that in mind when you're voting in November.

PUBM-47

MARCELO KRAUS: My name is Marcelo Kraus. I'm a resident of Plaza Hermosa since 2000. I would like to talk about a couple of things.

Number one, I would like the report to differentiate -- what's the difference between directional drilling and fracking? Because every time we try to look up what directional drilling is, we always come up with fracking. So if they can somehow in the report include that, that would be wonderful.

The second thing is that I don't think it's reasonable for an average individual to read 1500 pages of highly technical language and be able to make an informed voting decision.

I think maybe all three reports should include, you know, three, five, 10 pages, or a summary that stand alone that can be in plain English so people can understand what these reports are saying.

I think if you want to get into details, you can go and read all 1500 pages if you want. But if they could include something that is basic for an average individual to understand, I think that would be wonderful. Thank you very much.

MIKE COLLINS: Good evening, Chairman Hoffman and Commissioner. My name is Mike Collins. I live at 520 8th Street. I'm a long-time resident of Hermosa Beach. This is my friend Barbara Ellman. She lives on Wilma. I don't know her address.

Before I get started, I would just like to say that I hope one of the results of everybody being here tonight is that the Planning Commission is actually given a voice in this process and that what you think and what you believe and what you come to understand about this project is something that is officially considered when the City Council starts to weigh in on this.

PUBM-48

I'm here tonight to actually talk about the draft EIR, and I'll try not to be political. So I'm concerned about the ground flare. I've heard it called the ground flare, and I've heard it called the gas combustion.

The imagine that Barbara is holding up is actually taken from the draft EIR. You can find it in three places. You can find it on page 2-27, 2-43, and 2-63. It is a plan for the project. It was probably submitted by an applicant. And we have laid it over the city so you can see where the project is and what the looks like as proposed.

Here in the corner is the ground flare. That's one of the things that I'm particularly concerned about with the safety risk and potential risk for upset.

It troubles me because the emissions from this project will be from crude oil, combustion products. It includes xylene, benzene, and more. The presence of these compounds will increase the cancer risk of the people living directly downwind and around this project site.

I ask that they amend the document to reflect the exact nature of the ground flare and include a discussion regarding the additional safety hazards associated with the use of ground flare as opposed to the more traditional flares that are 300 feet above the population.

PUBM-48 continued

I've heard from people in the oil and gas industry say the reason that they will use them is because what comes out of the ground flare is particularly nasty, and you don't want that near in general population.

One possibility to mitigate it would be to remove the ground flare and put an above ground flare on the highest point in Hermosa Beach. I think that would be possible.

The gas combustors and the tanks are also less

than 20 feet from the property line. Gas combustors are also next to storage tanks. Right? That distance does not meet CAL/OSHA, NFPA requirements, or the American Petroleum Association requirements for that. Crude oil has boil-over characteristics. So it's treated as more reactive than other oils.

So I would like to see a document amended to discuss the rationale behind the placement of these tanks and the placements of these gas combustors. And I want know if it's an actual reality for this project. Or like the speaker said before, when this thing starts to go through various committee processes --

PUBM-48 continued

Can I have your two minutes? Thank you.

So I would just like to know then if it's reality or what can be agreed upon to make it more safe.

Like Johnny Lang said before, and this is also from the draft EIR, figure 4.86 shows what we started joking and calling the Red Zone, they Yellow Zone, and the Blue Line, which is the Black Zone.

If that thing was to explode the way it possibly could, and I know it's a small risk, and I know the oil company is saying that it's such a small risk that it shouldn't be considered as a significant and unavoidable impact, I live in the Red Zone. Barbara lives in the Red Zone. Johnny Lang lives in the Red

PUBM-48 continued

Zone. J.R. Revicky lives in the Red Zone. Kevin Motuso lives in the Red Zone. Michael Binder lives in the Red Zone. Sumone Binder lives in the Red Zone. Phil Fredo lives in the Red Zone. A lot of people live in the Red Zone.

We're the people that if the worse case scenario happens, we're the people that melt. We're the people that are decimated. It's insulting if somebody says that the risk isn't that big. Thank you.

PUBM-49

LOGAN ALLEN: (Could barely hear this gentleman. Extremely soft-spoken) I want to thank you for being here tonight. And specially I think that having an open vote really encourages public participation which we don't see enough.

It's a very controversial topic. It's very emotionally charged, as we just heard. So I'll try to focus on just the facts and the issue. It's tough to separate that from other parts as life is considered here.

So in trying to do that, I look at the real tangible benefits, detriments, all of that. I don't want to weigh too heavily on the idea of what fear brings about. Because I understand that people have very legitimate concerns. I understand why they have them.

PUBM-49 continued

But I want to weigh more heavily on that and focus more on that than it is reasonable. I look to the city yard which I want to go check out myself just to see where the site is going to be. It doesn't look excellent. I think anybody can agree on that.

It's my understanding that there's oil contamination, which nobody here is really talking about when there was a proposed drilling site. It's my understanding the company has offered to clean all that up. It's a proposed project. I appreciate that.

I spoke a week or two ago and told you that my parents are both in the law enforcement and have been for my entire life. This has already been laid out to you about the firefighters, police officers in this area. I appreciate that real tangible benefit.

So I look to the good of this project, what it can do. And I do consider this. But I consider what I think is an appropriate issue. I would ask that we be more pro-active so we can have a reasonable debate about that, and not do kind of hyperbole tree flags from the city's decision.

So as it stands right now I support the project. I think I might be ridiculed for that very thing. I hope as time goes along we can come to have a reasonable, informed debate, discussion, and make an

PUBM-49 continued

informed decision.

So I would like to see what benefits we can get. I think our way is hyperbolic residents.

MR. ALLEN: I have a question. What is your name and where do you live?

LOGAN ALLEN: Logan Allen. I live on Ocean.

PUBM-50

JAN RICE: Good evening. My name is Jan Rice. I'm a marine and coastal scientist with non-profit Heal the Bay. We're a local non-profit that has been in the Santa Monica Bay for almost 30 years. We focus on water quality and the health of the ocean and public health.

Tomorrow you are going to be receiving a 38-page detailed comment letter on the draft EIR. Several of our staff members and outside experts have reviewed the EIR, our comment letter, along with other environmental issues in the community.

I just wanted to highlight a few parts of the EIR that really spoke to me, and I think would resonate with many of the residents of Hermosa Beach, and also suggest a few areas of the average that should add strength in the next reiteration.

The man before me spoke about facts. So I will stick to the facts.

The propose project has a very real potential of oil spills, upward in the 34 percent chance as stated

in section 4.3 and 4.8. A 34 percent chance. That's a pretty good risk if we're looking at risks.

As a marine scientist, I deal mostly in the biological section. Many pages comment on that. But I would like to highlight a couple of areas.

One of them is that we recommend the City of Hermosa Beach into the discussion of impact of oil spills and weapons; specifically, Malibu, and the sand dunes in Santa Monica Bay.

Many times in the EIR it says that there are several common areas. We want that area to be specified. The oil spills, if they get to the ocean, do not know boundaries. Many people mentioned Chevron offshore oil tankers which we also viewed that the EIR 2010 say, "We'll do our best to get back to the less damaging project."

PUBM-50 continued

That comment has oil spills to reach all the way up to Malibu Bay. So oil spills here also have that potential. We really feel like the potential impact to weapons should not be underscored enough.

In addition, I wanted to -- the EIR does a good job of touching on many aspects of the impact of biological resources. He said they are unavoidable and significant if a spill happens. 34 percent chance.

However, we feel like it needs to be beefed up

PUBM-50 continued

in the area of reacting to an oil spill recovery and clean up. These disbursements of other chemicals are used in oil spill accomplices. We recommend that the EIR use special chemicals used in cleaning up associated with the wild life and mitigation measures.

We have seen some other oil spills and cleanups that are similar to the actual oil spill as well. So it's important that the response demand is adequate.

Finally, I wanted to touch on the geological resources. My husband is a Ph.D. sedimentary geologist. He said one of the main things he's worried about is the liquefaction because it's an offshore oil drill site. Thank you.

PUBM-51

IATIANNA GEUR: My name is Iatianna Geur. I'm an attorney with a L.A. law firm. I work throughout L.A. County. Our mission is to protect the water quality emission from all sorts of pollution. That means ground water and surface water.

We have been paying attention to this project. And really our concern just like with any other oil drilling in the L.A. is the potential for impact on the surface water and ground water. And probably a lot of you know most of our water body here in L.A. County are, in fact, impaired. This means they are severely affecting the water quality limits.

So in addition, just from a very practical and human standpoint, we are talking about drilling in the vicinity which is very close to the beaches, densely populated areas, and really any such project should be given the utmost attention.

But for now the focus of my comment here and my main concern is the protection of water resources. As was mentioned earlier, CEQA's mandates and goal is to give full disclosure of all potential significant and environmental impact so that it will be able for the public and decision makers to make an important decision on a particular project and select the one that is best for the environment. So that is really the goal.

PUBM-51 continued

Of course, we are going through a balancing act. And you will be. And the voters will be. But at the end of the day we have to know all the facts. And we have to make sure whatever project we approve is the best for the environment.

Unfortunately, our review the draft EIR tells us that, currently as written, it fails to comply with CEQA and to the significant revise at least with respect to water resource impact. For example, the EIR failed to (her voice broke) of all water bodies that we are submitting that could be impacted by the project.

Some attention is given to ground water but no

PUBM-51 continued

attention to, for example, the benefit oil uses and water quality standards of Santa Monica Bay and the beaches which are near.

In addition, some of the potential for oil spills and well casing failures which was discussed earlier, the EIR should be advised to analyze the connection between polluted ground water which may occur in cases of well casing failure and surface water. As you know, those two are connected. They're not really like one water moving back and forth. That should be analyzed it, and it isn't.

Next on my list, and I'm just focusing on some of my comments. My comments will be submitted in a letter. Full disclosure of chemicals and additives that will be added, injected back into the wells after the produced water is treated. That should be analyzed. Right now we don't know what those chemicals will do.

The focus of our work has been a lot of storm water pollution. And we believe that the construction A and B, the construction phase of the project are not analyzed adequately. They should be specified for each phase of this part of the project and specific to that phase.

Finally --

MR. HOFFMAN: I'm going to have to ask you

to --

IATIANNA GEUR: I'm sorry. I'm done. Okay. Thank you.

MR. HOFFMAN: They were giving you more time. You have four more minutes. My apologies.

PUBM-51 continued

IATIANNA GEUR: Oh, that's okay. I was actually about to finish.

But at the end of the day we do think that the impact of the project as they stand and the location frankly is so significant. And we just -- even after revision, I'm not sure we will be at a point where this project will be considered safe for the environment and safe for the community. Thank you.

MR. HOFFMAN: Thank you.

I hate to do this to you, gentlemen, who are standing in line. Our court reporter needs to take a break. We are going to pause here for five minutes.

THE REPORTER: Thank you.

(Whereupon a short recess was taken.)

MR. HOFFMAN: Okay. We are back.

One last comment is you're coming up; different height, different people. If you can make sure you are speaking as close as possible into the mike. That will help.

Again, this for everybody who don't know, this

is being broadcasted as well and will be available for anyone who maybe catching it at a good point, going to the city website, the archive video to see the video of any of these people, including counsel and other commissioners.

All right. With that we will resume. Give us your name.

TOM MALONE: Good evening. My name is Tom Malone. My wife and I bought our property here in the south end of Hermosa in 1978. I would like to make a number of comments dealing with the EIR and related issues.

It was mentioned previously the EIR points out eight categories of significant and unavoidable consequences to the oil drilling.

PUBM-52 There are a number of concerns about the extent of what's going to be going on. As it was mentioned, nearly 50 percent of the city's residents live within one half mile of the proposed drilling site.

There will be 30 wells to 34 wells. 15 story towers. There are two towers. I think one is 12, one the 15. In any event, the down side to all of this, the activity, other people have talked about the transportation problems, the trucks going in and out, the fumes emanating from the site are going to be an

impact on tourism. A definite impact on loss of property values.

And keep in mind that within one half mile literally half of the people, half of the people in Hermosa live at that site.

The other concern that I think is even more major are the health issues which contaminate from the pollution hazards that's going on at the site. And they're not talking yet about the possibility of an oil spill or disaster.

PUBM-52 continued

Oil drilling and removal, no matter how it's done, it is fraught with potential disaster. There are a number of major disasters. Somebody was talking about the Exxon Valdez, the disaster in the Gulf which was an oil platform. By the way, just to correct him, it was an oil platform explosion. It was not leaking underground.

But locally in Southern California, this is my concern, what has the record been? I'm not going into great detail. But we're talking about Santa Barbara. We're talking about Avalon Beach. Unicol Oil in Avalon Beach dumped 22,000 gallons underground that is completely soiled, the downtown area under the major beaches of Avalon Beach. And it literally stopped for years business mortgage companies would make, and no

buying and selling properties there for many years. It's a very, very serious incident.

Right now we're talking about an article that appeared last month in the L.A. Times that the University Park in Los Angeles, which is one half mile from the USC campus, they -- and I'm going to quote a couple of things from the article in the L.A Times.

MR. HOFFMAN: Very quickly if you can.

PUBM-52 continued

TOM MALONE: Okay. The U.S. Environment Protection Agency formally accused a South Los Angeles operation of putting the health and safety nearby residents at risk. The EPA investigation was prompted by complaints of respiratory ailments and nose bleeds that residents blamed on fumes that were emitted by the landfill.

The company of University Park's oil extraction operation on land the company leases from the archdiocese of Los Angeles.

It goes on to say they are being investigated by the city attorney. The air quality management district says the oil gas resources will affect the public health, et cetera, et cetera, et cetera.

These complaints continue. And this is all affecting people living one half mile of that site, of that drilling site. This would have serious

PUBM-52 continued

consequences if we have similar problems with A and B oil extraction.

I am very, very concerned going forward, that this is the wrong thing should this in any way be proposed in Hermosa Beach. Thank you very much.

PUBM-53

PETER SHELLENBARGER: Good evening. Name is Peter Shellenbarger. I'm a water quality scientist with Heal the Bay. I'm going to read some direct quotes from the draft EIR. And then I have some comments about them.

The draft EIR reads, "The Palos Verdes and Newport faults lie approximately two miles southwest and six miles northeast of the project site."

"Both of these faults are active and capable of producing severe seismicity-induced ground shaking at the project site. Potential seismic impact and associated damage to structures from a major earthquake on a nearby Newport, Inglewood and Palos Verdes faults or any other regional faults would be considered significant."

That's straight from the draft EIR.

Damage to the project infrastructure is a huge concern. The proposed project, as planned, has multiple on-site storage tanks to hold/produce water, oil and gas during extraction.

PUBM-53 continued

During a proposed -- during an earthquake these tanks may rupture causing huge volumes of water, produce water, oil and gas leakage.

Other proposed project plans mitigate to contain soil failure, the plans show that mitigation is only going to contain 110 percent of the largest on-site tanks. That's one tank.

If multiple tank failures were to occur during a single or multiple seismic catastrophe, the project would not be able to hold these volumes. Produced water and oil would be released from the project site. Toxic pollutants would also end up in our coastal water.

The environmental impact for multiple tank failure is not addressed in the draft EIR. It should be.

Oil contamination along this coastline would have a huge impact to our local economy. The Santa Monica Bay, this is a $10 billion industry. So it a really big impact in the Santa Monica Bay.

I have injection well comments. This is -- again, the draft EIR reads, "The proposed project sites are located along the western edge of the west coast basin. The west coast basin is one of the largest basins of the coastal plane, ground water basin. Two million residents of coast to coast depend on ground

PUBM-53 continued

water for approximately 35 disposable water."

"The injection wells that pass through fresh water deposits creating potentially water quality impact as a result of oil leakage or innvertive (phonetic) hydration of waste water from the point of injection upward through formation. As a result crack-outs. That's what it's called. There's uncontrolled leakage that's produced from the water formation. This is on page 4, 14, 12."

The proposed project water supply is a huge concern. The possibility of crack-out occurring along the injection well has a capacity to degrade the water that the region depends daily."

It's extremely unclear in the draft EIR where the injection wells, as well as production wells will be sited. It will be offshore mostly; north, south of the Hermosa Beach. It's very, very unclear.

It's also noted that onshore injection wells are going to be happening, and we have no idea of the depth of these injections and where they are.

The draft EIR states -- oh, yeah. And there are no maps. So I have no idea looking at the draft EIR where these are going to be occurring. These need to be included. Maps need to be included in the final EIR, as well as these injection well locations.

PUBM-53 continued

The proximity to the use for water supply and the depth of the targeted injection well, reservoirs used for waste waters disposals.

Additionally, the amount of waste water produced on a daily basis is a concern. It appears the draft EIR proposes that two to one ratio of produced water can produce oil in the fields in the L.A. region. You will see a 9 to 10 to 1 ratio produce oil -- or produce water to oil. So that's a big concern. I'm not really sure how the draft EIR came up with this number.

Thank you for this opportunity to speak to you. Those are my comments.

MR. HOFFMAN: As former council member and Mayor Bowler is signing in, I would like to remind everyone it seems that time constraints are cutting people off. I will remind everyone that you can submit an unlimited -- really, an unlimited written comment tonight. And I certainly encourage everyone to do that at this point. And make sure your comments are incorporated to the EIR.

Mayor Bowler.

PUBM-54

JOHN BOWLER: Thank you, gentlemen.

John Bowler. 833 Hermosa Avenue. I joke that I have been a resident shortly after they put the ocean in 30 years ago. More like 40 years.

PUBM-54 continued

I had the honor of serving with J.R. for eight those 16 years that he referenced and went through the entire McPherson oil debacle. I had a chip -- I won't choose the word on that. I ended up casting -- certainly decided on casting the vote that cancelled that project. And I did so based on the safety issues that J.R. referenced, the 701 casualties.

So clearly the safety of our oil project is the primary concern.

Another thing I wanted to say, I notice our stickers here say "Protect Hermosa's Future." But in reality that's what we're really all here about. We're just trying to figure out what's the best and the most effective way to go about that.

And before I do that, I would like to compliment the audience tonight for their stability and respect for each other. Having gone through the first hearings, we didn't have a lot of that. So the change is remarkable and well welcomed.

I just want to speak specifically to a couple of issues on the EIR, primarily with transportation issues. It seems that any time we get into the discussion of transporting oil from the site to wherever it goes, that the hyperbole of demographics branch out to Exxon Valdez coming down Valley Drive.

PUBM-54 continued

The reality is -- I'm referencing 4.8, Safety Risk, Risk of Upset and Hazard. 4.811 says "Transportation by pipeline is one of the safest forms of transportation for oil and gas." It goes on to say, "The greatest risk for pipelines is third-party damage."

Now, to point out that A and B doesn't agree to encase their pipeline in another exterior pipe which virtually makes that impossible to damage or reduce it to the near impossibility. So the pipeline itself, they have -- the changes that they have recommended make it remarkably safe. I hope that would be noted in the final EIR.

The other issue, 4.13.6.2 deals with the truck traffic. First of all, I live on Hermosa Avenue. I would pray for the day when I've got 16 trucks to come by my house. 16 beer trucks to come up front. It is not the apocalypse to have trucks driving by your house.

The thing that we're talking about, 18 trucks, 16 trucks a day is only for the period when they are removing the soil from the project. And that's soil, not oil that's going down the street during the initial phase.

After that -- excuse me.

Thank you.

That's greatly reduced. In their tables to go

PUBM-54 continued

along with that, there's really no comparison with the existing traffic already. So how much is it a step up from what is already the traffic going by that area.

The table 4.14.7, I don't blame these people for being confused. I read the EIR. I have no idea what that one says. I think it can be reworded to make it clear what the real traffic issues are there. How many truck traffic? Make it simply by trucks and not divide it how many axles and blah, blah, blah just so that everyone can understand what it is.

Again, I want to thank everyone for their stability and for the respect they are showing each other. I hope we go through with this the whole process. Thank you.

MR. HOFFMAN: Reminding everyone again to sign your name when you come up here on that list. Please understand that the court reporter is challenged by the fact that people are talking away from her. She can't see their lips, much less, John's mustache. We appreciate your valiant efforts.

PUBM-55

JEFF KRAG: Good evening. My name is Jeff Krag. I live on 8th Street in Hermosa Beach.

I'm an accomplished chemical engineer for over 30 years working in and around eight years with hydrocarbon property equipment.

PUBM-55 continued

Generally, I've always been supportive of responsible development, of natural resources governed by prudent laws and regulations. However, the magnitude and complexity of the proposed project appears inconsistent and incompatible with the proximity to and the density of the nearby sentiments in the community.

I've been deeply reviewing the A and B project's description and their risk assessment, the EIR risk assessment. And even after reading some of the documents over three decades, I find this document elusive, not easy to understand the exact risk scenarios and the specific mitigation being proposed.

For those of you in the audience that are having trouble reading the EIR, I share with you that having a chemical engineering degree, understanding the terms and understanding the engineering concepts does not make reading the EIR any easier.

Risks are described at length and potential options to mitigation. But they lack a tight connection between the risks involved and those proposals that mitigate their impact.

The suggested area is too lengthy to discuss here. That's why I plan to submit specific areas in the EIR regarding additional work provided by the comment period.

PUBM-55 continued

The areas will include event risk assessment, event risk assessment methodology and protocol, toxic commission health impact, incompatible crane operation, inadequate buffer zone to the plant boundary, density in process of equipment and siting, and flare-sizing and location.

Thanks for the opportunity to participate in the process this evening. And I look forward to continued involvement. Again, my name is Jeff Krag, and I am no coward.

PUBM-56

RAY DUSSAULT: My name is Ray Dussault. I live on and 18th Street.

I can echo part of what this gentleman just said. I'm a nuclear power plant engineer, and I still have trouble reading the EIR. I think that could be one of the biggest improvements. What we ask from the consultant is to try to make the EIR more understandable for everybody.

Some areas -- Johnny mentioned his kid watching the little squirrels at the project site. It makes me feel like maybe I don't know where the project site is.

That site right now is an eye soar. It's poison coming through the asphalt preventing the squirrels from playing there. So I would like to see the EIR highlight better how it's going to be improved

PUBM-56 continued

upon by having the oil drilling operation there.

I would also like to see the EIR provide examples. There's been a lot of mention of significant impact that can't be mitigated. I believe that coming before you in the next year or two, if not already started, are going to be large hotels projects on the strand. I'm guessing that those projects will have significant impact that cannot be mitigated.

What I would really like to see the EIR provide some comparisons for people so that it's not just isolated as if no other project in the world would ever have significant impact.

There needs to be some -- you guys get it. You've been going this for decades. So you get it. You know that every project has significance. That's not to say you're old. You get it. You understand that all projects have significant impact.

But those of us who are lay people trying to read this don't have that concept. And I would like to see the EIR put more of that into context so there can be less emotion-based arguments and more factual arguments so that people have a better understanding, I think, of the project.

Also I would like to see the EIR highlight what the damage would be from raw sewage flowing into the

PUBM-56 continued

ocean. Because we can't fix our really delapidated sources.

Thank you for your time. And have a good evening.

MR. HOFFMAN: I think I just heard a nuclear engineer say he was a layperson.

PUBM-57

SHERYL MAIN: Good evening. My name is Sheryl Main. I'm a Hermosa Beach resident.

I want to thank you for holding this forum. And I want to thank everyone who came here tonight for speaking their minds and doing it in a significant manner. I think that is -- we can thank you for that as well, for maintaining that.

I read the draft EIR. It took me two weeks. I can't say that I understood everything. But I felt that I needed to read it and try to understand it because it's going impact me in some way.

You know, I wasn't scared by it. But I was intrigued. I keep coming back to this idea of what are we willing to gamble in order to get what?

We know that right now without drilling we have almost a zero chance of some catastrophic thing happening. Once we start drilling or prepping and excavating and trucking, and whatever, that changes, clearly. It changes.

PUBM-57 continued

No one can say that something is not going to happen. No one can say something is going to happen. But the evidence is clearly on the side of something happening if we start drilling.

I hear people making jokes. You know, I know that this has been a very touchy subject. People are saying how it's tearing the city apart. It's not. It's definitely not tearing the city apart.

The residents here are finding their voices. We're speaking our minds. We're coming together. And we're trying to find that common ground.

What's happening here is when somebody says they are afraid because they are going to be impacted health-wise, and someone says, "Well, you know, if sewage flows into the ocean you're going to be impacted as well." There's a difference, gentlemen. There's a big difference.

I think we have to keep that in mind. When someone says, "Well, they can build a mall and then we're going to have impact." There's a difference between a mall and drilling for oil.

When people speak about their health and their concerns about their kids, they're not joking. It's not because they want to be contrary. It's because they are concerned. One thing happens, we're all going to be

PUBM-57 continued

impacted. Not just the Red Zone.

I have friends who live there. I was in their house looking out. They go, "Look." I'm like, "Holy cow."

So you can say it's ugly. You can say, "It's an ugly area but we're going to fix it up." But what are we going to do? What are the plans if something happens? If something happens, what are we going to do? How are we be going to clean that up? And how are we going to mitigate that? I don't think that's possible.

Again, we're finding our voices. Everyone is having their moment, which I think is really good. Outside of someone telling me that we're going to get money, I don't understand what the value is. Because if money is all we're concerned about, I'm thinking in 50 years money isn't even going to exist.

PUBM-58

MIKE MATRONINI: My name is Mike Matronini. I want to thank the commissioners, all of you, for being here tonight. Thank you very much.

We obviously had an opportunity to look at the draft EIR. We believe -- originally when we put the project together, we believe we put it together, we know state of the art facility. We met the safety environment standard. We used what were common threshold significant criteria to make those

PUBM-58 continued

determinations. So I'm very proud of that application package. And we are happy to submit that.

As you see with the draft EIR there were significant findings in there. So we got that document. Unlike most people, I have read the entire draft EIR. And I really focused in on some major areas. Areas like odors, pipeline spills, blowout scenario, and some noise. Those are important issues. We felt we owed it to the community and make sure we did the best we can do there. So that's what we did.

We spent the last two months working with our group of engineers and designers in coming up with ways of how we can mitigate this project to a point where it can be done safely and it can be done quietly.

So we're very happy we have already submitted significant information to MRS related to that. I think one of the items that was submitted was -- the pipeline scenario is not a 34 percent chance of a spill as it states there. But the bigger issue is that if you had a spill on the corner of Herondo and Valley Drive, and somebody dug it up, they had corrosion during a storm event, that would be carried out to the ocean. So that is a 0.4 percent chance of that happening over the life of the project.

So our whole goal was put together a new

PUBM-58 continued

pipeline design, which is basically pipe and pipe. All those causal factors such as third-party damage and corrosion, those are mitigated damages.

So we can drive those numbers way down and we will see what they look like when we are done with it. It's a pipeline that is not -- it's a design standard above and beyond what you find with other pipelines.

Same thing with noise. We immediately identify a piece of equipment. We're making the noise with that. We're exceeding the noise standard. We put more stuff on it. We ran the models. I believe we dealt with that.

Same thing with odors. We found out features of equipment, designs features from our project, significant design features. Design features that you don't find on normal oil and gas projects.

Where you have a closed room system and it only takes care of the tank, the tank action from the bin is a closed room system. The point of that is that you don't emit stuff into the atmosphere and you prevent odors.

So these are things that we submitted. We are feeling very confident that once there's a re-draft of this document we're going to see some change. We owe that to the community. Thank you.

MR. HOFFMAN: Thank you.

CRAIG CADWALLADER: Good evening. My name is Craig Cadwallader. I'm here to speak on behalf the Surfrider Foundation of South Bay Panthers.

I won't repeat a lot of the things that have been brought up here. There are a lot of people involved in this process that are submitting written comments who have also given some verbal comments. As will we.

My major concern is an issue where there may be potential offshore subsidence. In the applications submitted by A and B, which I have read every page of, if you look at the addendum and whatnot, it's somewhere around 5300 pages. I have read every page of the draft EIR. Not my most favorite thing. There are lot of other things I rather do.

PUBM-59

However, I am seriously concerned about potential overlooked risks for the entire Santa Monica Bay area. One of the issues that I thought was rather strange was the fact that other cities, such as the City of Manhattan Beach, are not looked at in the EIR. And I think there are potential serious impacts that would impact that city as well as others in the Santa Monica Bay.

My concern with the offshore subsidence is

PUBM-59 continued

centered around what the applicant has put for monitoring measures, which I think are inadequate. And I directly address that in our comments during the smoking (phonetic) period. They were not addressed properly, in our opinion, in the draft.

We don't read they're being a monitored in the right places. We don't know where the oil is going to be withdrawn from because we don't have a map of where the drill heads will be located and removing oil. So we don't feel the monitoring plan is adequate.

When I look back at the coastal commission meeting notes from 1998 on McPherson they listed several mandatory kind of things, which included some reports that were produced that are not included in the application by A and B, including some coastal environments.

These were pointed out as important to the coastal commission. But all of a sudden they've disappear in the meantime. So I think those things have been missed. They need to be put back in. They need to be examined carefully.

For our members having the sea bottom recede could interfere with all the surf breaks. It could shorten the beach. It could have more water run-up with sea level rise as a serious issue. We also have

PUBM-59 continued

droughts that are causing some type of earth (phonetic) submissions. So when you add it all together I seriously hope it will be addressed. Thank you.

CHRIS MILLER: Hi. My name is Chris Miller. My family moved to Hermosa when I was four. Unfortunately I live in El Segundo right now.

I want to bring up El Segundo because there's been a reference to how wonderful Chevron manages their site. And I'll just give you a little example of Chevron.

First of all, it's built over 100 years ago. So they have half mile perimeter surrounding all of their facility. They are bordered by the ocean, Rosecrans, Sepulveda and Imperial. There is not

PUBM-60

anywhere, anywhere where five feet is the border between their production facility and people's businesses or homes. So I'm just going to clarify that.

On a sidenote, politically Chevron owns El Segundo. And I'm just going to bring this up because environmentally I see all aspects of it. I may be looking at the last five independent people here. Because it's going to go a different way.

In El Segundo we write the city council person or the Planning Commission. Your letters are answered by Chevron. I'm not clear how much, you know, A and B

PUBM-60 continued

according to all this talk is going to safe us from ourselves.

We have been managing pretty well for over a hundred years. We have have not needed -- our sewers have come and gone. Our piers have come and gone. Our schools were built by our residents. Suddenly we are in dire straights without them.

I just want to add one other thing. Because I actually have a husband who is a scientist who is in the medical business. We have lots of friends who are around gas.

I was approached by a friend of mine who got called from A and B saying that when they get this project would his company be interested in managing and operating the system.

So I don't know how attached this should be, A and B. Because somewhere down the line if I was them I would sell it to anyone else who is interested in having an ocean front.

But all that aside, now let me get back to what I have prepared. In preparing my remarks, I used the draft EIR to formulate my questions. I have a lot of questions. I narrowed it down to three.

First, I cannot find any reference to my concern for methane gas. Although not toxic, methane is

extremely flammable made for an explosive mixture when mixed with air. Will there be a baseline survey for current public methane, soil, gas in the area, including the site?

Are there plans for monitoring the soil, gas emissions during the drilling and oil production phases? It should not be in their little -- in the city yard. It should be included within a perimeter at least a thousand feet of a proposed project.

I couldn't find that. Obviously I didn't have time to read 5,000 pages.

PUBM-60 continued

But my second concern is the hydrogen sulfate which we know is --

PERSON IN AUDIENCE: You can have my time.

ANOTHER PERSON IN AUDIENCE: You can have all of our time.

CHRIS MILLER: I will be quick.

Drastically affect your health.

While the Occupational Safety and Health Administration, OSHA, provides stringent regulations for all personnel working at well drilling locations where there's concentrations of hydrogen sulfate.

Which, by the way, up to 100 parts per million of hydrogen sulfate is lethal. In the EIR it states that there will be up to those levels at this site.

PUBM-60 continued

So according to OSHA, hydrogen sulfate; flammable, colorless, gas, rotten egg odors, toxic to humans in combination with other medical (phonetic) sites.

Site operators are required to provide employees warning signs, respiratory equipment concentrating as a pre-emergency and containing equipment.

Wibble (phonetic) who are operators provide the residents, businesses and children of this areas with the same respiratory equipment. It's just one more example how this project is just too close to our homes and the businesses to be safe. Okay?

Finally, when I requested more information regarding the possibility of the proposed water injected oil drilling project with MRS, they kind of said this is concerned here. So I did my own investigation. And I found that these nine reports from all over the country where there has been a cost for concern.

So oil in this area is here because it's a natural seepage from two earthquake fault lines that traverse across the proposed drill site; the Redondo fault line and Palos Verdes fault line.

With numerous reports several declared -- and I'm going to submit these in writing. That have been

reported throughout the country, and there is a list here; Denver, Ohio, other locations. I would take -- solicit experts, including the United States geological survey which states, "Induced events are frequent enough, particularly large enough to increase seismic hazards."

The summary continues. "Research projects require better seismic numbers surrounding injection levels at this time cannot estimate the probability of a given injection oil inducing earthquakes." In other words, a little bit more study is needed.

PUBM-60 continued

In my estimation I do not think Hermosa Beach and the entire Santa Monica Bay should become a guinea pig for the profits of A and B. The hazards rest mostly on the residents that sit behind me.

Santa Monica Bay has in the last 25 years been declared a marine sanctuary. And I don't know if any of you -- if all of us are surfers, swimmers. We've seen the return of the dolphins, seals. We've seen the sea bass return to the kelp beds. Although this decision will ultimately be made by the voters of this project, it will affect everyone in our bay.

I would like to -- we live here because of the amazing value of the area we live in. This proposal, in my mind, will be the equivalent of somebody breaking

PUBM-60 continued

apart my financial statement for the marbles. Only creating money could endorse such an endeavor. Thank you for your time. I really appreciate it.

MR. HOFFMAN: While we're waiting for him to sign in, anyone who is watching or those of you here, again, April 14th is the deadline for the written communications, comments on this. And I encourage everyone to put all of in writing. Get it to our consultant through the city and let the responses be appropriate for those.

PUBM-61

JOHN ARBELAEZ: (Very difficult to understand) Hi. My name is John Arbelaez. I'm an earthwork in the oil and gas project. We appreciate you allow us to be involved in the process and provide our feedback to the City of Hermosa Beach.

Although the draft EIR addresses the impact of the result of the conventional oil and gas extraction, it failed to study the impact that comes from potential income (phonetic) loss from the city with unconventional extraction.

Although A and B has stated that unconventional extraction issue would take place for the project; however, it is necessary to fully understand all risks as circumstances may change in the future that would force unconventional extraction needs to be imposed.

PUBM-61 continued

These practices include fracking and gravel fracking.

As we all have seen in the past, unfortunately the oil industry has not been completely truthful when it comes to these practices. Once the voters approve this particular project, they think they have though go to the state to understand the permits for fracking.

We ask that -- we wish to ensure the final EIR cover all issue areas as required by the California Environmental Quality Agent.

We also ask that a full life cycle analysis for the development of the project including planning, construction, production, transport, and the use of hydrocarbons included in the final EIR, to include a full and clear picture of the entire process.

Based on history and records of the environmental health impact caused by the oil and gas development, the significant possibility of this site's drilling will be two dozen (phonetic) production in waste water injection loss in the city will have a detrimental impact on the environmental quality and public health.

Any use of unconventional oil intimidation (phonetic) more than exacerbates the issue called unconventional revelation (phonetic) to the public infrastructure and property of Hermosa Beach.

It is essential for the city to consider environmental impact of the standard oil and gas development to protect the people, the economy and environment of the city.

Here are just a few of the suggestions to strengthen the proposed study.

PUBM-61 continued

Any ballot or measure allowing the voter/elector to decide whether or not to approve the project should be put on hold so the final EIR can see the final EIR includes a complete study on all methods of conventional and unconventional (UNCLEAR).

This is of particular importance since the voters will also be improving development agreement which will prevent the validation of the project by anyone in the future. Thank you very much for your time and allowing us to submit our comments.

MR. HOFFMAN: Thank you.

PUBM-62

BOB RASMUSSEN: My name is Bob Rasmussen. I have been in this town for about 40 years in the real estate business.

I've heard several of these people talk about the geological issues, earthquakes and so on.

This town -- I have had to do a lot of this work on the building I own here. The sandy soil here does not transmit sheer forces for tearing the building

PUBM-62 continued

apart or pipelines if there is an earthquake. If you push on sand it doesn't do anything. It just gives a bit.

You could notice in a town how many, let's say, houses around hundred years old are still here right now. A lot of them were torn down not for their own problems but to be replaced for money. So I would say that's an issue that they can look into. But it's not really a danger for this project.

Now, next on the esthetics. The city is allowed construction of many projects here. I live not very far from the part of the structure from that one year, about '98, '99.

It caused a little bit inconvenience and noise. I practiced law and I worked in the daytime too in the department. So I was there. I heard the driving. And I agree. It caused a little bit of inconvenience with this project here as it's been pointed out by some people. We're subject to the city also. And it should not be rejected just on the basis of a little inconvenience.

Now, as far as transportation, how many trucks go by? It was brought up, a beer truck. I would say a garbage truck is a lot. I know in one of the documents it said that there's -- well, there's that many garbage

PUBM-62 continued

trucks going by through the town, different neighborhoods at the present time.

Anyway I'll leave you with that. Thank you.

WALT KASHON: My name is Walt Kashon. I've lived in Hermosa for about 23 years.

I found this place years and years ago because it just was pristine. It had a feel to it that you couldn't find anywhere else in the city. I loved it. And I live on Ardmore between 1st Street and 1st Place. So well within range of the proposed site.

Couple of things stood out to me when I was looking at the EIR. One comment that was made from the meeting was while we look at the EIR, and we then decided how can we mitigate the issues that were raised?

PUBM-63

My question is this. Why were these proposals not done initially? Why wasn't the gulf enclosures for the pipes done initially? Because it was a cost issue; right? It's all about what can we do to get by with the minimal cost.

Now, when people object where the EIR looks like it's going to be a problem, now they come back and they say, "Okay. We're going to have to raise the ante. Were going to have to do something else."

My problem is: Why wasn't it done initially? What other measures are out there that we are not aware

PUBM-63 continued

of, okay, as time goes on?

Will those standards of today be the same standards of 10 years from now, 15 years from now when we're still figuring things out? Why change it? Why risk it? The money is definitely not worth it if we end up having the problem if we look out in a potential spill. So that's one point.

The other things is that when a spill happens -- you see the evidence in Santa Barbara and other places where you still feel the tar on the ground. You still walk and your feet are still going to be black. It doesn't go away.

They can do the same -- everything they did with Valdez they can do. All the things they want to try to do. But it doesn't go away. It's there and it's going to be permanent. So we're going to have to get used the fact.

We even hear about these other cities where they have spills and they have issues and then they're trying to sell 25,000 gallons, whatever it is. Okay? Where does that go and what happens? What happens to this pristine site?

And the last issue is I think really -- well, two issues. The first one is perception. It doesn't talk about real estate values and properties. Okay?

PUBM-63 continued

But I will tell you when we were canvassing around as part of the South Hermosa, stop oil initiative I went to homes. And one of the interesting comments that back from one of the people that was renting it was, "You know what? I am really for this issue. This initiative."

I said, "Why is that?"

"Because we really would like to buy a home. And when you know what's happened, the prices will go down." And I thought, that's really tight.

The whole point is the perception. It doesn't matter. The fact that you can't quantitate what the home prices are going to do or not do, it doesn't matter. It's perception.

Every time there's a spill in some neighboring area around here, that will affect us. Because people will look and say, "Aren't they doing drilling there? What's going on there? Maybe we should consider a different place."

How are we going to mitigate that? That's what I like to understand. And how is it going to affect the prices and the place that I brought 23 years ago that's now almost paid for. Now what will I do?

And then the last thing is transportation. I have a real issue with that because I know when there's

PUBM-63 continued

an accident on PCH, or there's some problem over on Valley. Valley and Ardmore will back up. Any you will literally be there are for an hour trying to move a quarter of a mile.

So you can't tell me 16, 20 trucks when the first time there's a spill or there's an earthquake while transportation is moving, for instance, what happens when that truck may potentially have a failure or fall off the road or something like that. We can't predict. What's that going to do to this environment? What's that going to do to our city? What's that going to do the traffic? Thank you very much.

PUBM-64

AL SATTLER: Good evening. My name is Al Sattler. I'm chair of the Palos Verdes South Bay Regional and Sierra Club which reaches from Manhattan Beach down to San Pedro. Everything in between.

Members of our conservation committee have been reviewing the draft EIR and will submit a few pages of comments on it. It's not completely prepared yet. So I will be brief.

The draft EIR does need to be as accurate as possible so the voters can evaluate the project for themselves going into the election.

The draft EIR as it is, is not as good as it should be. Especially because this project will impact

so much in such a small area in close proximity to residents impact from this project are unavoidable. And the draft EIR admits as such.

Odor impacts in particular are going to happen. And the draft EIR admits it. I suspect they are under-estimating it.

PUBM-64 continued

Another comment is that we did submit comments for the notice of preparation. The asking questions that were supposed to be raised and addressed in the draft EIR and bound the draft EIR are rather lacking in that unfortunately.

If you don't have the first draft of the comments -- of the statements out there in the draft EIR, then you can't very well comment on them for the final EIR, not following the draft EIR process.

I will leave it at that for now. Thank you.

MR. HOFFMAN: Thank you.

PUBM-65

JOHN FLEMMING: Hi. I'm John Flemming. I live on Springfield Avenue in Hermosa Beach.

What I would like to talk about is just two things of clarification in the EIR. I'll call it the document because I keep stumbling over the EIR and other things and stuff like that.

But before that I would like to say I agree with a number of other people who made the point that

there needs to be more clarity and more human-speaking in the thing.

If we're still debating on fundamental issues that are this wide just before the election, then this process will fail. Shame on us. Shame on the voters. Shame you. Shame on the City Council. Shame on the people who prepared the document, et cetera, et cetera.

The two things that I would like to address, a lot of other things that other people addressed. But the two things -- well, first is aroma, odor, whatever it is. The city will either smell like rotten eggs or it won't smell like rotten eggs. It will stink in a small area, a huge area, or it won't sting at all. I don't know the answer to that because I'm not an engineer.

PUBM-65 continued

But I think the current document, the current document I think is before the closed room system, the gentlemen referred to it before. The smell just doesn't seem all that bad. This is a layman reading it. In fact, they can't be nearly as bad as the stench on our streets resulting two, three times a year.

But it seems to me that's something that should be tied down in the document. If the people that are doing this, to see it tied down, whether this is going to smell or not going to smell, and how broad it is,

then we have the wrong guys, frankly. We have to get somebody else out there.

The second part of this is about the noise. As I understand the document, the baseline is something like 30 decibels. The document uses language called decibels state. I think I'm speaking at 65 decibels. But if somebody actually knows that, I'm willing to stand corrected. So 30 decibels doesn't sound like very much to me, as if it would be a nuisance to the area. If that's indeed what it means.

PUBM-65 continued

So I think putting more context around what 30 decibel means or 40 or whatever it is, whatever the baseline is, and whatever that project is judged to be, I think that would be very helpful. And, again, I'm talking about outside the construction area. Because I'm assuming the construction area will be noisy.

We have had in our area three new homes and 14 townhouses probably built over the last maybe two, two and a half years.

In any event, we ought to be able to sort that, it's either noisy or not noisy. Those are two issues we shouldn't be debating one week before the election. Thank you for giving me the opportunity.

PUBM-66

JOE GALLIANI: Good evening, gentlemen. My name is Joe Galliani. I am the organizer of the South

Bay 350 Climate Action Group. I'm a resident of the City of Torrance. But I am a long-term volunteer here in Hermosa Beach.

The EIR has eight significant and unavoidable impacts that we have heard mentioned here earlier tonight. And I would like to add a ninth unavoidable impact and significant, most significant impact of all of this project.

It hasn't been mentioned. And it will never be mentioned by our friends at the A and B. But it's mentioned every day in the news. And it's mentioned every day by the world's finest scientists. And that is the state of our climate right now.

PUBM-66 continued

And that is the fact that our parts with C02 right now were 360 part tank level. We're at 400 parts and we're declining right now.

We have a carbon budget. That is the amount of carbon that we can safely burn before we hit two degrees celsius global warming with all the finest scientists the world over says the danger zone that we should not pass because unavoidable climate has to be weighed on the other side of two degrees.

Now, perhaps there's a planet where the ice caps are not melting, where is seas are not rising, where the temperatures of the land and the air and the

water are not going up. But that's not the planet Earth that we live on.

So if folks would like to base this environmental impact report on the true environmental impact of adding to our carbon budget with unnecessary oil that is right now safely sequestered under the ground and cannot do any harm to our climate, if you like to know what the most significant impact is, it's adding this unnecessary oil to our carbon budget.

PUBM-66 continued

I would like to know how this city and how this Planning Commission is going to take responsibility for that oil. Because right now we have that oil safely in stock.

But if you allow this company to come in for one reason, for profit, to wreck our climate and add to our carbon budget then I dare say that this body and your City Council and residents of this town own that carbon, and it's your responsibility.

So I lope you treat that responsibility very, very seriously. And I hope that you add this very significant and unavoidable impact to your environmental responsibility. Thank you for listening.

PUBM-67

DAVE ANDREY: Dave Andrey. 11th Street.

An average business partnership is about five years. An average marriage is about eight years in the

U.S. 35 plus years. We just have to look at it. That's the fact. You can look it up. Google it, et cetera.

There's a saying by Bob Cohan, that I have been told; that all facts die. Which that sounds great. You won't have a lot lawsuits anymore.

But what was done to find out about A and B? You guys look at RFP. You guys look at the contracts. You guys look at the people coming in. This is a potential billion dollar deal with this company. We're going to be in a relationship with four times longer than a typical marriage.

PUBM-67 continued

Has anybody, anyone at all in the City of Hermosa done any background check on A and B? Its executives? Any kind of information that's been disseminated to the public that knows what kind of company that it's going to be in a relationship with.

I know there's a garbage company coming in. We've learned plenty about the garbage company. We're paying for the service.

But what are we learning about the oil company? I can tell you right now I know that Steve Laton, present CEO, has at least 10 companies. I know that. You can look it up. He's the present CEO.

I know that looking up in the City Council

PUBM-67 continued

website A and B over a six-year period has spilled 16 times of at least thousand gallons or more of oil, without protected, for lack of its context everybody but the gas has spoiled the ground friend. That is a fact. That is the average amount of gas that's put in their tank every year. Kind of think about that.

Did you know that also they even drill the surface for oil samples. They didn't even get a permit. So is this a quality company or what? I know we're stuck with them. But is this a quality company? That's what we have to look at.

Also I don't know if your guys are aware. Hermosa is the most 52nd most densely populated city in the United States. That puts us in the 99 percentile. We're right there with Manhattan. We're not as densely populated, but close.

The City of Hermosa is grandfathered into many civil (phonetic) laws about drilling. Cities in California right now are 1500 foot setback. You heard earlier the gentleman saying 98 steps from his house.

So when you start seeing all these different reports about drilling and comparing us to cities such as Wilmington or wherever else it may be, think about them drilling in Manhattan with the people living right there. It wouldn't happen. It's just not logical.

That's not what City of Hermosa is.

The only thing to look at is the City of Hermosa is very different. How many of you have AC at your house? You don't. You live with the windows open. We don't need AC. Those chemicals will be going through the air.

As I look at the EIR, I would like to know more about how we are a different city, we live with our windows open, we don't have air conditioners in our homes. How does that impact the smell? Because we won't close our windows. That is very important to us overall.

PUBM-67 continued

The other thing that I would like to know is that on the hill where the drilling is going to happen. It's a hill. What I've seen has not been affected. It's mostly about 50, 55 feet above sea level according to Google using the maps. I'm not saying it's accurate. But I would like to know the height of the hill and where the drilling is going to be put.

Right now they'll out the workover rig 165 feet, about 16 and a half stories tall. So that puts it at 18 and a half stories tall. I would like to know more about the impact of the height. This is going on a hill. It's not at sea level.

Where can this thing be seen visually? Where

PUBM-67 continued

will it be seen? There's one -- there's three feet deep trying to find smallest on the entire west side. The only place I can find it is in some of the report.

If you put a lifeguard out in a house, a lifeguard's house is, what, 10 feet? 10 or 12 feet, 15 feet, 20 feet? Something around there. Put that in perspective. That's something that we all need to look at.

Have a gem. We have a beautiful city here. We've gone a hundred years without it. I moved here 10 years ago. I haven't left. I now have a family here. I bought my home here. I'm raising my daughter here. She's planing to go to school here. I'm paying money for schools. The schools are like 10 out of 10. 10 out of 10. You can't go any higher. There's no 11 like spinal tap. How are we supposed to get any better?

I understand that you're worried about money. You know what? We're a community that comes together to raise our money. You see everybody that comes here. We come together as a community to solve the problem and issue. We've been doing it over a hundred years. We'll continue doing it for the next hundred years. Thank you.

PUBM-68

JIM ROSENBERGER: I won't take much of your time.

PUBM-68 continued

Ironically today as I was driving home National Publish Radio was doing a story on a small Texas town that found oil just in 2006. Since 2006 5,000 permits have been pulled to pull oil out of that town. I guess they are pulling a lot of oil out.

They talked about that aspect today. But I'm only putting you on notice that tomorrow they're doing the second half of the story. And the second half is on the human impacts on that town of the drilling that has been going on there.

So for the benefit of all of us to get an outside third-party picture of the impact of the drilling on the community, I recommend that you tune in on the National Publish Radio tomorrow afternoon. Thank you.

MR. HOFFMAN: Thank you.

PUBM-69

STACEY ARMATO: (Very difficult to hear) My name is Stacey Armato. I live at 208 29th Street. I am a mom of a three and four-year-old. I work full-time in South Hermosa Beach.

We will submit our comments to the city. We will also post it on our website HermosaBeachoil.com.

Right now I'm just going to speak on one point that I found particularly interesting about the CUP. The inconsistencies are between the project application

PUBM-69 continued

and the draft EIR.

Draft EIR states that during Phase II, the drilling rig would operate continuously for 24 hours a day, seven a weeks, until the appropriate gas combined with the location for each well has been reached.

The DEIR estimates that the drilling test well will take 120 days after which the drilling rig will be removed from the project site. However, the CET states, "The maximum number of days the workover rigs or any other rig that is to be used on the site shall be 90 days a year and shall be operated weekdays from 8:00 a.m. to 6:00 p.m., excluding holidays."

The proposed 24-hour operation of a drill rig is inconsistent with the CUP. The CUP also provides for a 90-day maximum notice for any rig on the site. Expected schedule of 100 and some days during Phase II is also inconsistent with the CUP.

Additionally, the CUP requires the testing phase for oil production shall be a maximum of one year from the date of drilling is initiated. The DEIR estimates that during Phase II drilling will occur for three to four months, and testing for seven to nine months more. That's the expected duration of Phase II as described in the DEIR may not be formed again with the CUP.

PUBM-69 continued

Moreover that relies upon a schedule that runs 24 hours a day, seven days week, drilling over 120 days which also again will not conform with the CUP.

The DEIR states that during the drilling portion of Phase IV "The drilling rig will operate continuously for 24 hours a day, seven days a week until the appropriate depth and amount of oil at the location have been reached.

The DEIR estimates that drilling of the remaining 27 oil wells and three water reinjection wells will take approximately 30 months. Again, the CUP states explicitly that the maximum number of days the workover rigs or any other rig shall be 90 days a year and shall operate from 8:00 a.m. to 6:00 p.m. on weekdays, excluding holidays.

Project relationship conceived should be better explained. The relationship between the project and the CUP may require a revision of the drilling portion of Phase IV and Phase II in the final EIR. Thank you.

PUBM-70

JOEL SHAPIRO: I didn't know I was going to speak. I'm Joel Shapiro. I came to Hermosa Beach in 1976 from Manhattan Beach.

I didn't get involved with anything. I didn't even know where city hall was until Proposition 13. And now I came here for a different reason. But I feel like

PUBM-70 continued

I've got to speak.

First of all, there is always something to fix. Always. Whether you have money or not. Whether you're in Beverly Hills. So the fact the sewage system, et cetera, the police.

I was getting child support. I won sold custody of my kids. They have a formula for that. They don't give the complete paycheck from the spouse -- in this case from the mother to the father. There's a formula.

The scare tactic that we're not going to have anything is ridiculous. I'm sure if it goes to court and they win, there will be a percentage of our income we will have to give them. Not the whole thing.

So looking at it from a grass roots perspective I would like to remind everybody of that. It's not all or nothing. It's not no sewage system, no lights, no police. They'll figure it out. And there will be a percentage and a formula. Thank you.

PUBM-71

DAVID MACHAMRIZ: My name is David Machamriz. I'm 2nd Street in Hermosa Beach. I've been a resident for about 16 years. I moved here from New York because I love the city. I came here to visit. Very quickly just fell in love with it. Walked around the streets and the town. I'm pretty sure if I had seen what would

be potentially happening here, my desire to come here would have just been minimized greatly.

I asked for this before. I want to ask for it one more time. I hear in the EIR report we can have a picture for the various phases of this project. Every single -- whatever the period is of change. It's two months, three months, whatever it is. Where there's just an imagine that says this is what it will look like in month one, month five, month 12. Whatever it is.

So people understand exactly what it will look like; the number of rigs, how tall they are, petroleum description 125 feet, 80 feet. Whatever it is. And also where it can be seen from.

PUBM-71 continued

The gentleman in support of oil drilling a little bit earlier said that because of this situation he took a stroll over to the city yard to see that it was unattractive. With what's happening is, you won't have to take a stroll. The guy's been living here for a long time. He's never been bothered by it. This will bother everyone in the entire city.

Finally as a businessman, I make hard decisions all the time. I look at different scenarios, opportunity scenarios. This here doesn't seem like a very hard decision. I'm not really sure why there's people who question it at this point. So what I -- I'm

PUBM-71 continued

not in the oil business. But I did speak with a number of people.

It seems as though if we don't go this route we vote against it. Chances are that if we had to go this route, we would be drilling one day we would get a much better deal.

So the point is it's an asset if it goes all the way. What we are paying to get out of this deal is very minimal compared to the upside if we one day we want to use it.

So I'm not 100 percent against anything. But there's a need for a decision. I already put an overhead in my kitchen to take care of the heat bills. This is my home. That's how I feel. That's how a lot of people feel.

So I encourage everybody to think about that. Look at it as an asset. We can use it at a later time if we need to. Thank you.

PUBM-72

NANETTE BARRAGAN: Hello everyone. I'm an attorney. I can understand you'll want me to slow down.

I didn't real plan on speaking this evening. But I did want to take an opportunity. I heard a lot of misleading, bad facts. And I can't let the night go by without correcting some of them.

So I wanted to start because I heard a few

PUBM-72 continued

people talking about, oh, it can't be that bad of a smell.

I actually had the opportunity to go down to Huntington Beach where the company proposing to drill for oil here in Hermosa has a facility.

Let me tell you, I went three times. Once when A and B took me. It was pretty quiet. There wasn't a whole lot going on.

I went a second time. The second time I went unannounced. It was a little different. There was a smell. I myself came home nauseous from the smell.

But then I went a third time. There were two workover rigs. Not one, but two. I call them the twins towers.

If you have been to Magic Mountain and you have seen the ride Free Fall, it's similar to that. That's exactly what it's like.

The smell? Oh, it was a lot worse. I came home nauseous and was scared myself. So I tell people this story because I say, look, the EIR doesn't convey that. There's no smell portion. You can't scratch and sniff to see what it's going to be like.

So I would hope and invite people to go down there and smell for yourself and then ask yourself if you come home to take care of someone like me, or you

PUBM-72 continued

can live with that for 35 years.

And this is not construction. This is operational with the workover rig workup. That's the first thing I wanted to talk about.

Second, we keep hearing about, oh, this great record. Oh, we never had a spill. When I went on my tour their plan manager confirmed with me that there had been a spill there. Oh, it was small, though. Only eight barrels. But, boy, did it make a mess. That was a quote.

So I'm not -- I'm not sure that these are facts people know. I say them because I want to make sure they know the facts.

Tonight we heard yet again, oh, we might go bankrupt. Apparently the person has not read the CBA. The Cost Benefit Analysis makes very clear that we will not go bankrupt. The new talking point? Oh, we're going to have $40 million a year.

How will we spend it? Okay. Let me clarify here. I know a little bit about the budget. The City Council has about $40 million in their budget a year. There is no way we're going to have 40 more million dollars a year. Zero. It's nowhere in the Cost Benefit Analysis.

The Cost Benefit Analysis makes clear the

PUBM-72 continued

amount of money we can get is something like 182 to like 270. It doesn't amount to $40 million a year for four years.

But that's not all, though. I wanted to go through what the cost really is going to be. Because that seems to be the new misleading fact. It's been gone over and over again tonight.

The cost if we say no is $17.5 million. Okay. Now, think about it. The cost if we say yes -- all of these are in the Cost Benefit Analysis. $3.05 million is going to cost the city for the temporary relocation of the city yard. Add another $10 million.

The permit relocates the city yard. Then the environmental clean up cost of the city yard. There is another 3.7. And that's the conservative number to clean that up.

Now, the lost the revenue includes the storage facility, there's another $6.4 million. What does that add up to? $23.15 million.

We say, yes; 17 and a half million. We say no -- I mean, rather we say no; 17 and a half million. We say yes; 23.15 million.

But wait, folks. That's not all. There's more cost coming if we say yes. Okay. Let's see. We have to pay A and B oil three and half million dollars.

PUBM-72 continued

Let's add that on now.

Oh, wait a second. The CBA, page 59, section 9.6 says there's a required emergency fund the city is going to have the have. There's another at least half a million dollars. These are all from the Cost Benefit Analysis.

Oh, we need to add additional staff to monitor the project. How much is that going to cost us? According to the CBA, $11.9 million. Page 60 of the Cost Benefit Analysis. Now, how much is that? That's another 16 million dollars. Let's add to 23, plus the 16, we're up to $39 million. And that's if we say yes.

That's not all, folks. Cost Benefit Analysis, we are going to have to up the fire department. We're going to have to make upgrades. There's another $15.5 million.

Page 59, section 9.7. Lost property taxes. It ranges from, I don't know, a million to 10. Even if we use 5 million, add that on.

My point, we get close to $50 million. And then what? That's not even the cost to finance this. People worry about the cost of financing 17 and a half million? What about the cost to finance 50 million?

These are the facts, folks. Right out of the Cost Benefit Analysis. I have to talk about this

because I keep hearing this as the talking point.

So I really encourage people to read the Cost Benefit Analysis. I hope that the Cost Benefit Analysis will put this into a spreadsheet so they can see for themselves there's a lot more cost.

This doesn't take into consideration what the impact will be on paving the roads. We had a meeting the other day with Sanitation about repaving the roads. The gentleman said, "Oh, we'll get the city costs." We have new trucks coming down here. Sure, nowhere in that. We need to add that stuff in.

PUBM-72 continued

I only bring this up again because people keep talking about cost. Some people will only look at cost. That's fine. But take a look at all the real costs.

So I urge everybody to do that. I will be as well making comments about the EIR. I am greatly concerned about the fact that we need to read 20 pages to get to the big sentence. We'll read 20 pages about the color of the trees, and what kind of birds are in the trees. But then we've got to look at page 21 and see a sentence that says inhaling a hundred pm's of hydrogen sulfate can be lethal. And the project has a potential to reach up to 100 pm's.

Oh, and then it changes the topic. Now, hold a second. Shouldn't that be somewhat closer to the front?

PUBM-72 continued

How about if we stick that in the executive summary?

These are the facts that people cannot find because it's stuck in between all the scientific and technical language.

So I hope to see in the revision, and these will be part of my comments, a more easy to read, easy to find of the really big impact. Thank you.

MR. HOFFMAN: Anyone else? All right. In that case, I'm going to close the public hearing.

I'm going to remind everyone again, those listening as well as those that are actually here tonight, the deadline to submit your written comment is the 14th. And we obviously are encouraging and are hopeful that everyone will submit them. Again, thank you very much.

Now, gentlemen --

The meeting is not over. The meeting not over. Obviously you are free go go if you like.

Is there anyone here on the panel that would like to add their comment to our discussion tonight?

PUBM-73

MR. PERROTTI: I would like to say one thing real briefly. There were a lot of comments about the size of the EIR.

Here it is. It's about four inches. It is tough reading. But I encourage everyone to at least

PUBM-73 continued

read the executive summary. It's only 16 pages.

When you read the summary if there's something that you're looking for with more detail, there's a table of contents, chapters. Then you can go to those specific areas.

Also the Cost Benefit Analysis, that summary is only three pages. I mean, we all can read three pages.

So I encourages everyone, not necessarily the people who are here tonight, but the people that are at home. Obviously the people that came tonight are really involved in this project. I encourage the people that I have spoken to, a lot of them have not even read the executive summary. That's all I have.

One last thing. I met the chairman in the last couple of meetings. You did a really good job.

MR. HOFFMAN: Thank you.

PUBM-74

MR. PIZER: You did an excellent job. And I agree with Sam in what he's saying. I think if you guys can get more people to participate in this operation and actually start reading something about what's going on, educate the people, it would be a big help. I don't care what side you are on. I think the community has to know about it.

I know when I was younger person like most of you guys are, the family was more important. I never

PUBM-74 continued

went to any meetings. I didn't know who the major was of the city where we lived. I know it's hard for people to do this.

This is a very important issue. The most important issue I have seen since I have been here. So we have to really get more community people involved so they can understand what they really want.

And I think what Nanette said about the clarity of the EIR is extremely important. If we had it printed a little bit better, then the people could read it. We can take a few pages, maybe 10 pages or something so you can really get a feel for what's going on in our city. So I just want to encourage all of you guys here that spent all this time waiting and talking and everything, we appreciate it.

Just try to spread the word to the other people in this community so they can at least get a little education themselves so they can make their own determination of they want. To me it's obvious. Thank you.

PUBM-75

MR. ALLEN: That was a good point you made there. I was having a discussion with one of my neighbors last week without saying what side they were on or not. We got into a little bit kind of a disagreement.

PUBM-75 continued

I looked at her and said, "Have you read any of the information?"

She said, "What are you talking about? It's all there on the website, on the city website."

I said, "I suggest that maybe we curtail our conversation until you went over there and read it a little bit."

I think that's a good point.

The other point I wanted to make is that between these two meetings, it's my feeling that anybody who wanted to have a chance to speak spoke. There was time yielded to both sides. Many people yielded more than once. Well, you can keep track of it. And then also many people spoke more than once.

So I think to conclude this meeting, I think everybody really got their chance to speak. Tonight I just kind of kept a little tally. There were 47 speakers. 21 of them addressed -- well, I could be off by one or two. But a little less than half actually addressed what we came here to talk about. I thought that was kind of interesting.

You know, personally I submitted my own comments to the EIR. It just kind of happens that it was funny that last Friday I took a little online class in the American Petroleum Institute's most basic course.

PUBM-75 continued

As a result of that, my comments centered around spacing; the distance between tanks and people and walls and human activity. If you're interested, you can look at the API and see what those dimensions are.

My last sort of little sarcastic comment is that I used to work in a solar plant for Mobil Oil. The first day they indoctrinated us, when you go in the plant you get to wear a little patch. I said, "Boy, this smells."

They said, "Yeah. It's C2SS. It stinks. That the good news. If you can smell it, you're safe. If you can't smell it, you're dead." I just thought that was a little sarcastic. High concentration you can't actually smell it. You just simply die.

(Court Reporter was having difficulty with her machine)

PUBM-76

MR. FLAHERTY: ... know what the retention basin would be even Phase I if you view the yard. I guarantee you, the fire department would have a difficult time in knowing all the issues that need to be addressed as they hit the site.

So I would think that we need a strong safety response program prior to voting for this program. Like I said, I have at least three or four dozen questions and comments. Some of them are very particular to my basic knowledge of that yard or traffic pattern.

PUBM-76 continued

We generate at least 100 vehicle trips per day to an existing yard. When you transfer that yard to another location, you're adding to a traffic pattern that is not addressed in the traffic study.

So I strongly think that they relook at doing another traffic study, adding the existing traffic pattern. Because if it transfers to this area you need to take that into account. Not just the 14 trucks that will come in and out of that yard with the new project. There's 100 vehicle trips generated today by existing personnel.

That being said, like I said, I submitted all these questions to the director and the experts. Thank you. Again, I thank you for managing this meeting. I think went well.

PUBM-77

MR. HOFFMAN: Couple of comments.

Some of you know that I'm a college professor. Unlike my students, I put off until the first last moment completing my comments.

Real quickly, couple of things that stand out to me in speaking of the EIR and the proposal that we're looking at.

One of them is the site description. My problem that I'm having -- if someone suggested this should be an analogy I would make as though we were

PUBM-77 continued

evaluating a helicopter port and we're looking at the site where the helicopters are going to land, later knowing that they have to have a site. We're looking at the truck traffic that's creating fuel for the site, so on and so forth.

Somehow what strikes me as missing -- oh, yeah. By the way they're going to take off by the city. In this case they are going to take off and go under the city. While we have very precise site diagrams, which I will bring up in a second, about what that very compacted site is going to look like, the proximity of the ground flares to the tanks, all of those kind of issues. What we get for the pipes themselves is they kind of go off into a very kind of crude -- it's not a mass. It's kind of, I assume, kind of a crude -- there's some yellow lines that go off. And then we got some relief that shows they are down 1,000 feet.

My understanding is that you drill them and then the others are redrilling. And then there's some mutation that occurs. But my understanding as I read this is that at some point there are electric pumps that went down into the system. Why didn't we see the old pump on the ground?

Here's what I don't know. And one of the other things was the term liquefaction came up tonight. There

PUBM-77 continued

was some discussion that liquefaction only occurs in the soil that's saturated. That's one definition of liquefaction.

Another definition of liquefaction is when any solid behavior of liquid, when energy is supplied to it. While one of the speakers tonight commented that sand doesn't respond, I happen to live in one of those hundred year old houses that he was talking about.

Again, all I can do is respond to my own experience. When someone vibrates through the pile on the strand, I feel it in my home. My question, of course, then is: What am I going to feel both of that drilling underneath my home? And then am I going to have 35 -- if I live 35 years. My kids or the people that will live in the condo that then replaces my home.

They are going to be experiencing the vibration that comes from that pump down there. I know that most people would say well those pumps -- I'm sure they will tell me don't vibrate or whatever in the same way that I have been in the room where there is a fan and the air conditioning duct doesn't vibrate over my head is driving me nuts.

I've read the vibration portion of this. I hope that there is some clarification. I think part of the problem is the site designing as it is stipulated,

we show the yard, we show the pipeline, we show the site where this will be relocated. We don't really show the pipelines themselves as part of the design project would, in fact -- that's what this project is. It's about 35 wells under our city.

They may be a thousand feet away. I don't live that far from the site. I can't believe they are going to go -- I don't know that -- there needs to be some type of clarification for me.

I do believe in fact that we literally need to feel safe with 3,000 feet away. I don't know. I hope there will be some clarification of that.

PUBM-77 continued

The second thing that I have some problem with is it's been brought up by several people tonight, including up here.

The site is so small that, while the odds as I understand it, any one of these events occurring are quite remote. Independently the fact is energetically if there is an accident on the site because of the site, it's inevitable that all of those things would happen.

In other words, you can't have a spill without a fire. I'm being hyperbole now. That seems to be the very nature of the project as it's designed because of the constraints in the site, the site as opposed to this an oil field in Texas. If it was 1500 feet from every

PUBM-77 continued

other well it would be a different kind of risk factor.

So I hope there's a little bit more clarification in terms of the actual risk that's associated with attempting this project not only -- it's one thing -- I don't mean to minimize that at all.

It's one thing to tell you this is going to happen a hundred feet from somebody's bedroom. But it's also the fact that it's not just the city compacted. The site itself is so compacted. It just seems very difficult for me -- I'm trying to sort two cars in the garage. I don't have space to work. I don't know how you drill these wells. And I'm sure the folks here can answer these questions for you.

But I'm hoping there will be a little bit more explanation in the analysis of that. Particularly I think someone else mentioned it or a couple of people tonight. I used to live in the north end of Manhattan and got the smell of the refinery there. But I also got to witness when there was a flare off.

I'm not sure what a ground flare looks like versus what most of us are familiar of seeing how it occurs. Not here. But we've seen them at Mobil. We've seen them in El Segundo.

I understand if you -- the dimensions were mentioned in El Segundo versus the dimensions of this

yard. I don't know how big a flare off we can have 100 feet from those kids' bedrooms. I hope there's some discussion of that.

And then, again, I can see everyone has had more than enough of me tonight. It seems to stand out to me this is something a little difficult to make an intelligent decision about something that I only have a vague sense of a pipeline running off somewhere.

Where is that site going to occur has been mentioned. Where is the pipe breaking going to occur? What depth is it going to be?

PUBM-77 continued

Frankly some people I know may be listening. Lot of folks here tonight.

One of those pipelines that is shown on that diagram goes up through literally the city's boundary. So the citizens of Manhattan Beach are going to be a part of this project as well. So somehow the city light, the street light out here and the storage unit and the pipeline, to me that's not an accurate description of the project. Those are part of what I want clarified.

Again, I thank everyone for coming. I share with all of my fellow commissioners, and my appreciation for everyone's stability tonight. I hope this is the beginning, not the end obviously of the discussion about

PUBM-77 continued

this project.

MR. PIZER: Just for clarification, there are going to be other meetings. We have to give the people that are working on it the opportunity to review everything and come back with something. Hopefully that will fix a lot of these problems and address them. So that's the next step.

Are they going to get the report? Is there anything in here -- unless they really do something. So far they haven't. As far as I have seen, they have not responded properly. So let's give them a chance. There will be another meeting and we'll see where we are.

MR. HOFFMAN: Just to clarify, the process part of this, so everyone is aware, the next phase of this is the draft Environmental Impact Report that we're counting on will be back to our consultant. They will complete that.

The final EIR will come back to the city. The next step will be for the city to certify that we have met the requirements of CEQA. Not approve of the project. It's not on the merits of the project. None of those are the issue of the next step.

The next step of this, again, is simply for us to make -- or the Planning Commission to make a recommendation to the City Council to certify that EIR

indicates that it has been prepared and consistent with the requirements of CEQA.

At that point the EIR becomes final. That's when you, the decision makers, which, of course, includes us as voters not as the Commission. That's when the City of Hermosa Beach will have the ultimate documents along with the ultimate impact that was mentioned forthcoming in May and the Economic Impact Assessment that is currently available for you to address some of these issues.

The process goes on. Again, the vote is tentatively scheduled for our November election. Again, thank you everyone. And with that we will stand adjourned.

(The EIR meeting was concluded at 10:00 p.m.)

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1 REPORTER'S CERTIFICATE

2 STATE OF CALIFORNIA)
) SS
3 COUNTY OF LOS ANGELES)

4

5

6 I, CYNTHIA L. VARELA, a Certified Shorthand
7 Reporter No. 5917 do hereby certify:
8 That the foregoing proceedings were taken
9 before me at the time and place therein set forth;
10 That the testimony of the individuals made at the
11 time of the proceeding were recorded stenographically by
12 me and were thereafter transcribed;
13 I further certify that I am neither counsel
14 for nor related to any party to said action.
15 Dated this 16th day of April 2014.
16
17
18 _____
Cynthia L. Varela, CSR No. 5917
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E&B Oil Drilling & Production Project
Final Environmental Impact Report
Public Draft Comments
Public Meeting Comments

Comment #	Response
PUBM-1	The EIR preparers acknowledge your views against the Proposed Project. Text has been added to the FEIR to clarify that the environmentally superior alternative is the no Project alternative. CEQA requires the selection of an additional alternative if the no Project alternative is selected.
PUBM-2	The EIR preparers acknowledge your concern regarding comment response and will address your comments on the DEIR as best as possible. Additional comments provided by Mr. Pruetz are responded to under responses to individuals under PRUR.
PUBM-3	CEQA calls for environmental review of discretionary projects at the earliest meaningful stage, to serve its purposes of public participation and informed decision-making. The detailed design of the facility has not been conducted at this time. However, there is sufficient information available that the feasibility of achieving equipment spacing that satisfies the intent of the codes and standards can be determined. Under CEQA, this is not deferral of mitigation because the performance criteria, the specific codes and the standards that would be applied are well established. Measures, such as fire walls and vessel insulation, are well established practices in industry and could be applied at the Project Site. Unless the codes and standards can be satisfied, then the Project would not be allowed to move forward through the permit process. This is like any building Project that comes forward, and is required to pass codes and standards in the detailed drawings and permit stage. CEQA case law states: "for the kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process, the agency can commit itself to eventually devising [mitigation] measures that will satisfy specific performance criteria articulated at the time of Project approval," and that " a condition requiring compliance with regulations is a common and reasonable mitigation measure" (Oakland Heritage Alliance v. City of Oakland (2011) 195 Cal.App.4th 884, 906).
PUBM-4	The Project's conditions of approval will be included in the Development Agreement that will be presented to the voters on the ballot. In addition to the mitigation measures of the Final EIR, conditions of approval will include actionable items that are administrative, many of which speak to how the Project is implemented. The EIR cannot include a mitigation measure (or condition of approval) to address fracking, because the EIR's measures can only address potential impacts of the Project as proposed. As stated earlier (and in the EIR) this Project does not propose fracking.
PUBM-5	Your views in support of the Proposed Project are acknowledged by the EIR preparers.
PUBM-6	The Fire Department training and additional FTE would be paid for by the Applicant. One additional FTE for a small facility would be sufficient to provide oversight of codes and audits, etc.
PUBM-7	The commenter requests to reassess field pressures from Scenario 1, Appendix C. Commenter believes these pressures are grossly overestimated for the area, as Torrance has never experienced such high pressures, even given the statement that the EIR must take a conservative approach. Additional detail on pressures has been provided in the Final EIR under Section 4.8, Safety, Risk of Upset and Hazards.
PUBM-8	Your views regarding the CEO of another corporation are acknowledged by the EIR preparers; however, this comment does not relate to the analysis of this EIR. Ground movement impacts and oil spill impacts are extensively discussed in the Final EIR. Respond to statement that oil is toxic and poisonous. The EIR does identify noise impacts, as you've stated. The hydraulic fracturing, or fracking, well completion

Comment #	Response
	technique is not part of the Proposed Project. Page 2-20 of the DEIR indicates that the Applicant has not proposed any "fracking". If fracking becomes an issue, a new CEQA analysis and additional approvals would be required. Your disapproval of the Proposed Project is acknowledged by the EIR preparers.
PUBM-9	Section 4.8 states, "Utilizing the Poisson equation, the probability that there would be any sized spill along any point of the pipeline over the 35 year life of the Project would be 34%." A large portion of these spills would be small spills or spills along areas of the pipeline where the spill would not flow into the ocean. This comment requests that additional information be added to the EIR concerning the western snowy plover. Western snowy plover was discussed in the Draft EIR under Section 4.3.1.3, Rare, Endangered, and Special Status Species. Additional information has been added to the list of potential shorebirds in the Sandy Beach community description in Section 4.3.1.1 and information on this species has been included in Figure 4.3-1 which includes major roosting and nesting habitat for this species. This comment suggests providing additional, recent data on nesting and foraging bird species in the SMB. Additional information from the 2011 Los Angeles/Long Beach Area Oil Spill Contingency Plan on specific sensitive sites which support bird nesting, foraging habitat, roosting sites, and sensitive species habitats has been added to text in Section 4.3.2 and has been included in text and in Figure 4.3-1. Mitigation Measure BIO-2 requires the preparation and agency-approval of an Emergency Response Plan would include requirements to prioritize these sensitive resources in oil spill responses. The text in Table 4.3-1 concerning blue whale occurrences has been changed to read: "Present in low numbers, but increasing in recent years." The comment suggests gathering additional information to derive a more complete list of avian species potentially inhabiting or foraging in the Greenbelt portion of Project Area. Although the description of potential bird species would certainly increase with all of the historic bird sightings in the area, the EIR is required to take a reasonable approach in determining the level of effort identifying which species are present with any regularity to be affected by the Project. The important point the EIR analysis makes is that the Project area is surrounded by busy roads, industrial and urban settings, and so therefore, this particular area does not support, on any regular basis, a natural diversity or abundant wildlife population. Those species that are present are very flexible and can accommodate for sudden changes to their environment. That is how they are able to survive in the unnatural, heavily impacted, conditions in the first place. Therefore, the populations of species inhabiting the disturbed, marginal habitat surrounding the Project area are not expected to be affected by the Project including the increased noise resulting from the Proposed Project. Please refer to Section 10.0, References for a comprehensive list of references on migratory and resident birds used for this EIR. The following text has been added to the impact analysis concerning lighting and noise impacts to wildlife species on page 4.3- 21: "Due to the industrial and residential setting in which the Project is located, it is unlikely that there would be any increase in impact level to any sensitive wildlife species, including native bird species, resulting from lighting or noise generated from the development or operational phases of the Project. Those species inhabiting the marginal habitat surrounding the Project area would already be accustomed to the baseline level of noise and lighting which is already abundantly generated from houses, major road ways, and industrial activities in the area. In addition, any permanent lighting for the Project would be designed to be directed downward and shielded in order to avoid obtrusive light spillage beyond the Project Site, reflective glare, and illumination of the nighttime sky."
PUBM-10	The SCAQMD has established regional thresholds that allow for growth and additional emissions but prevents substantial additional health related impacts. These thresholds were used in the development of the EIR. Construction emissions for a strip mall would most likely be significant and unavoidable as the construction

Comment #	Response
	thresholds are easily exceeded by a medium sized construction project.
PUBM-11	Your views in support of the Proposed Project are acknowledged by the EIR preparers.
PUBM-12	Your views in support of the Proposed Project are acknowledged by the EIR preparers.
PUBM-13	Your views in support of full disclosure within the EIR are acknowledged by the EIR preparers.
PUBM-14	Oil and gas projects within the jurisdiction of the South Coast Air Quality Management District (SCAQMD) are heavily regulated, and most operations require the use of semi-closed loop systems. These are incorporated into the regulatory requirements of operating within the south coast air basin. Therefore, the Applicant's insistence that the facility is closed-loop is potentially misleading. There are multiple activities proposed that are not closed loop and would result in emissions to the environment that could cause odors. These are accounted for in the air emissions analysis as required by the SCAQMD. These include drilling and the use of drilling muds and fluids open to the environment, the activities associated with well workovers, maintenance operations that involve opening vessels, piping and other equipment, accident scenarios, as well as fugitive emissions from leaking facility valves and components. The use of a flare header to direct all pressure relief, including the tank relief to the flare, while good industry practice, does not eliminate the release of emissions. In conclusion, emissions to the environment would not be eliminated with these measures and the potential for odors continues to exist as indicated in the EIR. Please see response to comment PUBM-7. Your views on the complexity of the EIR are acknowledged by the EIR preparers. As required by the California Environmental Quality Act (CEQA), the DEIR must thoroughly analyze numerous complex subjects, requiring a substantial amount of background information and data to adequately describe the environmental setting. Best efforts have been made to simplify the content analyzed. The Executive Summary can be referred to for less-detailed overview.
PUBM-15	Your views in support of the Proposed Project's financial benefits to firefighting and policing are acknowledged by the EIR preparers.
PUBM-16	Table 4.11.1, Common Environmental Noise Levels, gives common examples of decibel levels.
PUBM-17	Your views in support of the economic benefits from the Proposed Project are acknowledged by the EIR preparers. Third party damage is one of the causes identified by the State Fire Marshall and the Federal DOT for pipeline spills. Recent DOT data shows that "outside force" damage accounts for 25% of the oil spills from crude oil pipelines. Spilling 30 barrels, or 1,260 gallons, if the spill enters storm drains during a rain event, could impact the marine environment. 30 barrels spilled could also be contained if detected rapidly. Some oil spills in the Los Angeles area are discussed in section 4.8, Safety and Risk. Redondo beach could experience the effects of an oil spill that reaches the marine environment as Redondo Beach is located immediately to the south of Hermosa Beach.
PUBM-18	Implementation of mitigation measures FP-2a and FP-2b would reduce impacts associated with equipment spacing. Ensuring that equipment spacing complies with codes and standards before construction would ensure that impacts associated with equipment spacing would be less than significant. Ensuring that firefighting methods, including fire foam, would automatically be detected and effectively discharged in the event of a crude oil spill would help to reduce the impacts of a crude oil fire. Impacts would be less than significant with mitigation (Class II).
PUBM-19	Both the drill rig and workover rig are depicted in several enhanced photos in Section 4.1, Aesthetics and Visual Resources.
PUBM-20	Your views in support of the Proposed Project, against the aesthetics of the current City Maintenance Yard, and regarding the duration of the approval process are acknowledged by the EIR preparers.
PUBM-21	This EIR does not include a discussion on insurance requirements, as it is outside the

Comment #	Response
	scope of this EIR. The development agreement that would be agreed to as part of the permit process would include specific insurance, bonding and indemnification requirements. This EIR does not include a discussion on issues you brought up regarding "WorldCom," as it is outside the scope of this EIR. During periods of Phase 4, the 110-foot workover rig could be present on site for up to 90 days per year, as you stated.
PUBM-22	Your disapproval of the Proposed Project is acknowledged by the EIR preparers.
PUBM-23	Section 12.0 of the Cost Benefit Analysis includes discussion on the impact of the Proposed Project on the private property values in Hermosa Beach.
PUBM-24	Section 12.0 of the Cost Benefit Analysis includes discussion on the impact of the Proposed Project on the private property values in Hermosa Beach. The rest of the comment is not specific the tohe DEIR and no additional response is merited.
PUBM-25	Your views regarding existing pipelines and potential hazards are acknowledged by the EIR preparers.
PUBM-26	Your views regarding potential hazards and biological resources are acknowledged by the EIR preparers.
PUBM-27	Your views in support of the Proposed Project are acknowledged by the EIR preparers. Naturally occurring seeps are discussed in Section 4.7, Geological Resources and Soils.
PUBM-28	The EIR preparers acknowledge your concern regarding comment response and will address your comments on the DEIR as best as possible. The EIR preparers also acknowledge your disapproval of the Proposed Project. Naturally occurring seeps are discussed in Section 4.7, Geological Resources and Soils.
PUBM-29	Your views regarding the No Project Alternative as a common selection for the environmentally superior alternative amongst development projects are acknowledged by the EIR preparers.
PUBM-30	Significant and unavoidable impacts from odor could result from the Proposed Project. See impact AQ.5. There are, however, mitigation measures that would reduce the severity of odor impacts; however, the impacts are not fully mitigable and would remain significant and unavoidable.
PUBM-31	Project cost is addressed in the Cost Benefit Analysis. Additional information on the financial impact of revenue to Hermosa Beach associated with the Proposed Project is available in Sections 7.0 and 8.0 of the Cost Benefit Analysis, including information on the funds that would be directed towards the school district. The development agreement that would be agreed to as part of the permit process would include specific insurance, bonding and indemnification requirements. Earthquake impacts are discussed in Section 4.7, Geological Resources and Soils. Discussion of street impacts due to construction at the Chevron El Segundo Refinery is not relevant to this Project or the EIR. Your views against children being introduced to discussion over the Proposed Project are acknowledged by the EIR preparers. Your comment regarding the CEO's purchase of property is outside the scope of this EIR. Council member attendance at public meetings is outside the scope of this EIR. There is not enough information in your comment regarding a "25-foot whatever it's going to be" to determine what it is that you are requesting.
PUBM-32	The EIR preparers acknowledge your concerns regarding the proximity of recreationalists, your home, and your family to the Proposed Project Site and acknowledge your desire to give a face to those in the vicinity of the Proposed Project Site.
PUBM-33	Your disapproval of odor impacts and wells in residential areas is acknowledged by the EIR preparers. Your concerns regarding increased traffic and potential danger to children are acknowledged by the EIR preparers. Section 4.9, Hydrology and Water Quality and Section 4.14, Water Resources discuss wastewater.
PUBM-34	The EIR acknowledges and analyzes the impacts of the Proposed Project's water use; see Section 4.14, Water Resources. Most of the water used by the Proposed Project

Comment #	Response
	would be reclaimed water. The discussion in Section 4.14, Water Resources under impact WR.4 under the subsection Water Demand details water usage for the Proposed Project. At peak production, facilities related to the Proposed Oil Project would require approximately 7 megawatts (MW) of power during drilling and 3 MW during operations. Electricity consumption is further detailed in Section 4.5, Energy and Mineral Resources. The City is the agency responsible for putting measures on a ballot.
PUBM-35	The EIR preparers acknowledge your views regarding the analysis of costs versus benefits for the Proposed Project.
PUBM-36	The EIR preparers acknowledge your views that the City of Hermosa Beach would benefit from the financial aspect of the Proposed Project.
PUBM-37	Your concerns regarding the perception of the City as it relates to the Proposed Project and your concerns regarding public health are acknowledged by the EIR preparers.
PUBM-38	CEQA calls for environmental review of discretionary projects at the earliest meaningful stage, to serve its purposes of public participation and informed decision-making. The detailed design of the facility has not been conducted at this time. However, there is sufficient information available that the feasibility of achieving equipment spacing that satisfies the intent of the codes and standards can be determined. Under CEQA, this is not deferral of mitigation because the performance criteria, the specific codes and the standards that would be applied are well established. Measures, such as fire walls and vessel insulation, are well established practices in industry and could be applied at the Project Site. Unless the codes and standards can be satisfied, then the Project would not be allowed to move forward through the permit process. This is like any building Project that comes forward, and is required to pass codes and standards in the detailed drawings and permit stage. CEQA case law states: "for the kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process, the agency can commit itself to eventually devising [mitigation] measures that will satisfy specific performance criteria articulated at the time of Project approval," and that " a condition requiring compliance with regulations is a common and reasonable mitigation measure" (Oakland Heritage Alliance v. City of Oakland (2011) 195 Cal.App.4th 884, 906). Section 4.8, Safety, Risk of Upset and Hazards details the impacts of potential accidents. Refer to the Cost Benefit Analysis for economic analysis of the Proposed Project. Your concerns about the Proposed Project are acknowledged by the EIR preparers.
PUBM-39	The EIR preparers acknowledge your wishes to not be put at risk by others. The EIR includes discussion of the types of incidents that can occur in drilling projects.
PUBM-40	The EIR includes the frequency of releases in section 4.8, Safety and Risk, table 4.8-12. The thresholds used in this report are the same as have been used in the past, specifically, the use of FN curves. No specific odds of releases or fatalities are used to define the significance. Numerous scenarios generate a range of impacts that can produce 1 or multiple injuries and fatalities and the FN curves are a methods to summarize those impacts. The Proposed Projects combined scenarios and resulting impacts are plotted on FN curves, they were with the City's Bercha report and the McMasters reports, to define the significance.
PUBM-41	Your views regarding the risk of a spill or seepage from oil wells running from onshore to offshore as opposed to the risk of a spill or seepage from oil tankers is acknowledged by the EIR preparers.
PUBM-42	Your optimism regarding potential revenues from the Proposed Project is acknowledged by the EIR preparers. The way in which revenues are spent is outside the scope of this EIR.
PUBM-43	Comments from the Natural Resources Defense Council have been received. Significant and unavoidable impacts have been identified in this EIR, as you noted. Your view that the No Project Alternative is the environmentally superior alternative

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	is supported by the findings in this EIR. Your concerns regarding the Proposed Project are acknowledged by the EIR preparers.
PUBM-44	Your views regarding economic issues within the City of Hermosa Beach are acknowledged by the EIR preparers. The Cost Benefit Analysis addresses economic impacts of the Proposed Project, while this EIR addresses environmental impacts of the Proposed Project. Therefore, these economic issues are outside the scope of this EIR.
PUBM-45	The hydraulic fracturing, or fracking, well completion technique is not part of the Proposed Project. Page 2-20 of the DEIR indicates that the Applicant has not proposed any "fracking". If fracking or redrilling becomes an issue, a new CEQA analysis and additional approvals would be required. Past wells and their abandonment practices are monitor and regulated by DOGGR and are abandoned to prevent migration of reservoir fluids to the surface or into aquifers. Information on Herondo Street storm drains is located in Section 4.8, Safety and Risk (where there is a map and explanations) as well as in Section 4.9, Hydrology.
PUBM-46	Your concerns about air toxins and emissions are acknowledged by the EIR preparers.
PUBM-47	Your views on the complexity of the EIR are acknowledged by the EIR preparers. As required by the California Environmental Quality Act (CEQA), the DEIR must thoroughly analyze numerous complex subjects, requiring a substantial amount of background information and data to adequately describe the environmental setting. Best efforts have been made to simplify the content analyzed. The Executive Summary can be referred to for less-detailed overview. Fracking is not proposed as part of the E&B proposed Project. Directional drilling is drilling wells at multiple angles to better reach and produce oil and gas reserves. Directional drilling allows for multiple wells from the same drilling location.
PUBM-48	The ground flare does have a stack that vents the hot gases upward, acting more like a heater that an open flame flare. Heater stacks can be located quite close to tanks as long as thermal radiation modeling is conducted to confirm whether the tanks need to be insulated. An open flame flare would be more hazardous and was not considered. Your concerns regarding the proximity of your home and your neighbors' homes to the Proposed Project Site as it relates to potential hazards are acknowledged by the EIR preparers.
PUBM-49	Your disapproval of the aesthetics of the current City Maintenance Yard is acknowledged by the EIR preparers. For a detailed discussion of the soil remediation that would occur prior to final grading of the Project Site, refer to the Remedial Action Plan provided in Appendix A. Your support for the Proposed Project is acknowledged by the EIR preparers.
PUBM-50	Section 4.8 states, "Utilizing the Poisson equation, the probability that there would be any sized spill along any point of the pipeline over the 35 year life of the Project would be 34%." A large portion of these spills would be small spills or spills along areas of the pipeline where the spill would not flow into the ocean. This comment recommends that the EIR provides more detail on cleanup procedures and the effects of dispersals and other chemicals used in oil-spill cleanup efforts. The analysis, as written in Impact BIO-2, does include the potential for impacts to wildlife from cleanup efforts. In addition, the Emergency Response Plan, which will be reviewed by both the City and experts in OSPR and other resource agencies, will include additional details on specific cleanup requirements for specific resources. Your concerns regarding liquefaction are acknowledged by the EIR preparers. Please see Section 4.7, Geological Resources/Soils for a discussion on liquefaction.
PUBM-51	Table 2-11, Phase 4 Drilling Chemicals, lists chemicals which would be disposed in the injection wells. Your concerns regarding water resources are acknowledged by the EIR preparers. Water quality impacts are extensively discussed in Section 4. 14,

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	Water Resources.
PUBM-52	This EIR does identify significant and unavoidable impacts for the Proposed Project. Concerns regarding proximity of residents to the Proposed Project Site, emissions, transportation, hazards, public health, and impacts on tourism are acknowledged by the EIR preparers. Information on historic oil spills is included in Section 4.8 Safety, Risk of Upset and Hazards.
PUBM-53	Tank design is regulated by codes and standards, such as API 620. 650, and 653, which help to ensure that tanks can sustain earthquakes. Some tanks do fail, however, and secondary containment is provided for the proposed project. Multiple tank failures producing complete failure of both tanks is extremely unlikely and has not been addressed as the risks would be below the acceptability thresholds. The EIR acknowledges that an oil spill that reaches the ocean would be considered a significant and unavoidable impact. However, it should also be noted that the probability of an oil spill occurring from the pipeline during a significant rain event is extremely low. In addition, while the impact would be significant if it reached the beach, the spill volumes reaching the ocean are unlikely to be substantial enough, given the volumes projected to be spilled and the distance to the ocean, to be considered catastrophic. Additional text has been added to the Environmental Setting and impact evaluation regarding wastewater injection induced seismicity. Detailed maps of all proposed wells have not been provided by the Applicant for inclusion in the EIR. Each well location would be based on the outcome (i.e., geology, oil/gas/water content) of the initial test wells and (if drilled) any successive wells drilling during Phase 4. There is no state or federal methodology to determine what sufficient distance is required between injection wells and faults. Impact WR.3 indicates that the Project Site is located along the westerly edge of the West Coast Basin. Three major fresh water aquifers comprise the West Coast Basin: the 200-Foot Sand (Gage Aquifer), the Silverado Aquifer, and the Lower San Pedro/Pico Aquifer. Groundwater depth in these predominantly confined aquifers reaches more than 1,500 feet in the West Coast Basin, although water production wells generally are not this deep. The injection wells would pass through these fresh water deposits, creating potential water quality impacts as a result of well leakage and/or inadvertent migration of wastewater from the point of injection upward through the formation, as a result of frac-outs, which are uncontrolled releases of produced water from the formation. New text has been added from the 2011 EPA report referenced in these comments, as well as from a U.S. General Accounting Office report regarding groundwater contamination related to Class II wells. It is acknowledged that the integrity of some Class II injection wells has been compromised historically, potentially resulting in leaks to the subsurface. As a result, Impact WR.3 has been changed from less than significant to potentially significant and mitigation measures have been imposed accordingly as follows: WR-3a The Applicant shall complete a site-specific Area of Review/Zone of Endangering Influence analysis, per Division of Oil, Gas, and Geothermal Resources requirements, to determine if oil and gas wells are present that might serve as conduits for injected liquids to migrate upward to underground sources of drinking water. In the event that such wells are present, those wells shall be plugged and abandoned such that underground sources of drinking water (i.e., less than 10,000 mg/L total dissolved solids) are protected. Plugging and abandonment of those wells shall include zonal isolation plugs outside all casings and shall be completed per current Division of Oil, Gas, and Geothermal Resources standards. WR-3b The Applicant shall confine injected fluids into the intended zone of injection

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	in order to adequately protect underground sources of drinking water. Injection well cement shall be placed at the base of all underground sources of drinking water, and not just at the base of fresh water, to protect water with total dissolved solids content ranging from 3,000 mg/L to 10,000 mg/L. WR-3c The Applicant shall complete step-rate tests, using bottom-hole and surface pressure gauges, such that maximum allowable surface injection pressures are set at a maximum of 95 percent of the fracture pressure of the formation being injected. WR-3d The Applicant shall ensure that the hydrostatic pressure in overlying West Coast Basin aquifers is not exceeded during injection over the active life of the disposal wells. To ensure that this does not occur, the static reservoir pressure shall be monitored on a periodic basis, per Division of Oil, Gas, and Geothermal Resources requirements, and injection into the receiving zone shall cease if and when the hydrostatic pressure is exceeded. WR-3e The Applicant shall meet with Division of Oil, Gas, and Geothermal Resources staff annually to review the status of the waste water injection wells. Any deficiencies identified by Division of Oil, Gas, and Geothermal Resources staff shall be immediately rectified by the Applicant.
PUBM-54	See discussion on Pipelines in Section 4.8, Safety, Risk of Upset and Hazards for a discussion on risks associated with oil transportation via pipeline. Your views on the potential increase in truck traffic are acknowledged by the EIR preparers.
PUBM-55	Your views on the complexity of the EIR are acknowledged by the EIR preparers. As required by the California Environmental Quality Act (CEQA), the DEIR must thoroughly analyze numerous complex subjects, requiring a substantial amount of background information and data to adequately describe the environmental setting. Best efforts have been made to simplify the content analyzed. Risk mitigation is limited in regards to drilling because regulatory requirements, such as the use of BOPE, are already in place. Risk mitigation related to gas pipeline safety and reducing the probability of oil spills is also included. The Executive Summary can be referred to for less-detailed overview. Your views regarding compatibility of land use and spacing of the Proposed Project are acknowledged by the EIR preparers.
PUBM-56	Your views on the complexity of the EIR are acknowledged by the EIR preparers. As required by the California Environmental Quality Act (CEQA), the DEIR must thoroughly analyze numerous complex subjects, requiring a substantial amount of background information and data to adequately describe the environmental setting. Best efforts have been made to simplify the content analyzed. The Executive Summary can be referred to for less-detailed overview. For a detailed discussion of the soil remediation that would occur prior to final grading of the Project Site, refer to the Remedial Action Plan provided in Appendix A. The proposed hotel project that was constructed in Hermosa Beach in the early 2000s had an EIR prepared and 4 significant and unavoidable impacts were identified (noise, air quality and aesthetics). Raw sewage is not anticipated to flow to the ocean.
PUBM-57	Your concerns about the immitigability of potential impacts are acknowledged by the EIR preparers. Your disapproval of financial benefits to the City from the Proposed Project as an incentive to approve the Proposed Project is acknowledged by the EIR preparers. The Applicant would be required to develop detailed response plans, including cleanup methods, that would be approved by the City and authorizing agencies.
PUBM-58	Section 4.8 states, "Utilizing the Poisson equation, the probability that there would be any sized spill along any point of the pipeline over the 35 year life of the Project would be 34%." A large portion of these spills would be small spills or spills along areas of the pipeline where the spill would not flow into the ocean. A large spill, spilling in an area that could flow into the ocean (along Herondo or Valley) is a 0.4% chance before mitigation.

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	Oil and gas projects within the jurisdiction of the South Coast Air Quality Management District (SCAQMD) are heavily regulated, and most operations require the use of semi-closed loop systems. These are incorporated into the regulatory requirements of operating within the south coast air basin. Therefore, the Applicant's insistence that the facility is closed-loop is potentially misleading. There are multiple activities proposed that are not closed loop and would result in emissions to the environment that could cause odors. These are accounted for in the air emissions analysis as required by the SCAQMD. These include drilling and the use of drilling muds and fluids open to the environment, the activities associated with well workovers, maintenance operations that involve opening vessels, piping and other equipment, accident scenarios, as well as fugitive emissions from leaking facility valves and components. The use of a flare header to direct all pressure relief, including the tank relief to the flare, while good industry practice, does not eliminate the release of emissions. In conclusion, emissions to the environment would not be eliminated with these measures and the potential for odors continues to exist as indicated in the EIR. Proposed Mitigation Measures: The Applicant has proposed additional mitigation measures, including the installation of the pipeline within another pipeline with a cement slurry cover placed over the pipe in order to reduce third party impacts. By creating a double walled pipe, the failure rate of the pipeline could be reduced. A double walled pipe would reduce corrosion, allow for more rapid detection of smaller leaks and would provide some protection in the event of a third party impact. In addition, placing cement over the top of the pipeline would reduce the potential for third party impacts. By examining the causes of pipeline releases, the amount of reduction in the failure frequency can be estimated for the mitigation measure that would place a pipe within a pipe. The main causes of the releases, as per the DOT data, are corrosion and external force damage, followed by manufacturer's defects and natural force damage. The CSFM had similar listing for crude oil pipelines, but with a bit higher percentages for corrosion due to the use of crude oil. Assuming a reduction between 0-95% reduction for the different causes produces a reduction in the overall rate of 83%. However, longer term impacts could increase, as reported by the CSFM (communication with Mr. Flores and Mr. Gorham, 5/15/2014). The external pipe could corrode or collapse, allowing water into the annular space, increasing corrosion. The use of a double walled pipe has been addressed by the CSFM in past bulletins (CSFM 1998). At that time, the CSFM had concerns about the use of double walled pipes for the following reasons: cathodic protection, incorporation of valves, construction of bends, and thermal stress. The bulletin further stated that "The design, construction, operation and maintenance difficulties listed above serve as some examples of how the proposed installation of double-wall pipeline is contrary to established law, regulation and established engineering principles and could compromise public and environmental safety" and that "double-wall construction adds significant operator costs for design, construction, operation and maintenance while increasing the risk to the public and the environment." While these concerns have been reduced substantially by the proposal to use non-metallic outer pipe on a portion of the route, the CSFM staff indicated that they do not recommend a double walled pipe and would actually not allow it to be built. The preferred approach is to use the best pipe construction and coating techniques available. The CSFM data provides a breakdown of failure rates by construction and coating type. Although this information is older, the substantial reductions associated with the use of electrical resistance welding techniques of construction and the use of Fusion Bonded Epoxy or other advanced techniques would still be applicable. The use of ERW pipe from CSI in Fontana and the top-of-the line coating provided by Bredero Shaw Company would

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	produce substantial reduction in failure rates, on the order of 70-80% reduction. Note that the use of these measures would not affect the third party causes, equipment malfunctions or weather/natural force damage. These measures have been added to the mitigation measures in the FEIR.
PUBM-59	Impacts to Manhattan Beach and other cities in the Santa Monica Bay are evaluated in the EIR. Your concerns regarding potential offshore subsidence are acknowledged by the EIR preparers. As detailed in Section 4.7, Geological Resources/Soils, offshore subsidence could result from Proposed Project operations, as oil would be extracted beneath offshore waters. Offshore subsidence could damage offshore pipelines, outfalls, jetties, and piers, as well as change the dynamics of coastal depositional and erosional processes due to lowering of beach levels. The Applicant has proposed a comprehensive Subsidence Monitoring Program as a part of the Proposed Oil Project in order to monitor subsidence in the area during oil extraction and water injection. The Program would ensure that subsidence would not occur to the degree that it could endanger the facility, surrounding properties/structures, shoreline areas, and offshore areas. Potential impacts would be reduced to a level that is less than significant with mitigation with the implementation of mitigation measures GEO-4a and GEO-4b. Detailed maps of all proposed wells have not been provided by the Applicant for inclusion in the EIR. Each well location would be based on the outcome (i.e., geology, oil/gas/water content) of the initial test wells and (if drilled) any successive wells drilling during Phase 4. Geological impacts are discussed under Section 4.7, Geological resources and Soils.
PUBM-60	Your comments regarding the Chevron facility in El Segundo are outside the scope of this EIR; however, your comments are acknowledged by the EIR preparers. No indications of soil methane have been exhibited in the area. Soil sampling has been conducted onsite and no methane has been detected. Methane releases during the Project drilling and production could occur and are addressed in section 4.2, Air Quality, and Section 4.8, Safety and Risk. H_2S levels could range up to 100ppm in the produced gas within the piping. The ERPG-3 planning guideline states that this level could produce fatalities if persons were exposed for 60 minutes. However, 100 ppm within the piping does not equate to 100 ppm in the atmosphere at a location where employees or the public could inhale it, and if it were released to the atmosphere it would disperse within a few feet to a level below the ERPG-2 or 3 and would not remain below that level due to dispersion in the air. Text has been added to the FEIR to clarify these points. Your view that the Project Site is too close to sensitive receptors is acknowledged by the EIR preparers. As indicated in Impact GEO.2, impacts associated with potential Project induced seismicity are considered potentially significant and a Subsidence and Induced Seismicity Monitoring Program would be implemented to determine whether impacts are occurring. Mitigation Measures GEO-2a, -2b, and -2c provide additional measures to supplement the program. In addition, the Subsidence and Induced Seismicity Monitoring Plan has been added as an appendix to the EIR. Your disapproval of the Proposed Project is acknowledged by the EIR preparers.
PUBM-61	The hydraulic fracturing, or fracking, well completion technique is not part of the Proposed Project. Page 2-20 of the DEIR indicates that the Applicant has not proposed any "fracking". If fracking, or any other unconventional extraction technique, becomes an issue, a new CEQA analysis and additional approvals would be required. CEQA calls for environmental review of discretionary projects at the earliest meaningful stage, to serve its purposes of public participation and informed decision-making. The detailed design of the facility has not been conducted at this time. However, there is sufficient information available that the feasibility of achieving equipment spacing that satisfies the intent of the codes and standards can be determined. Under CEQA, this is not deferral of mitigation because the performance

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	criteria, the specific codes and the standards that would be applied are well established. Measures, such as fire walls and vessel insulation, are well established practices in industry and could be applied at the Project Site. Unless the codes and standards can be satisfied, then the Project would not be allowed to move forward through the permit process. This is like any building Project that comes forward, and is required to pass codes and standards in the detailed drawings and permit stage. CEQA case law states: "for the kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process, the agency can commit itself to eventually devising [mitigation] measures that will satisfy specific performance criteria articulated at the time of Project approval," and that " a condition requiring compliance with regulations is a common and reasonable mitigation measure" (Oakland Heritage Alliance v. City of Oakland (2011) 195 Cal.App.4th 884, 906). The City is the agency responsible for planning City voting agendas and ballot measures proposed therein.
PUBM-62	Respond to comment that building the Proposed Project on sandy soil is not a danger, as it has not historically affected infrastructure or buildings in the event of an earthquake. Your views that minor inconveniences potentially encountered from the Proposed Project should not be grounds for rejection are acknowledged by the EIR preparers.
PUBM-63	Proposed mitigation are additional ideas generated by the EIR consultant. Some of the mitigation measures were actually proposed by the Applicant, but lack specificity, so they have been added into the EIR with performance criteria. Releases that could impact the beach are quantified and section 4.3, Biology, describe the potential impact to beaches. Information on truck spills is included in section 4.8, Safety and Risk. Section 12.0 of the Cost Benefit Analysis includes discussion on the impact of the Proposed Project on the private property values in Hermosa Beach.
PUBM-64	Odor impacts are considered significant and unavoidable in the EIR, which is the highest classification of impact under CEQA. Impacts are not underestimated as suggested in the comment. The EIR preparers acknowledge your concern regarding comment response and will address your comments on the DEIR as best as possible.
PUBM-65	CEQA calls for environmental review of discretionary projects at the earliest meaningful stage, to serve its purposes of public participation and informed decision-making. The detailed design of the facility has not been conducted at this time. However, there is sufficient information available that the feasibility of achieving equipment spacing that satisfies the intent of the codes and standards can be determined. Under CEQA, this is not deferral of mitigation because the performance criteria, the specific codes and the standards that would be applied are well established. Measures, such as fire walls and vessel insulation, are well established practices in industry and could be applied at the Project Site. Unless the codes and standards can be satisfied, then the Project would not be allowed to move forward through the permit process. This is like any building Project that comes forward, and is required to pass codes and standards in the detailed drawings and permit stage. CEQA case law states: "for the kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process, the agency can commit itself to eventually devising [mitigation] measures that will satisfy specific performance criteria articulated at the time of Project approval," and that " a condition requiring compliance with regulations is a common and reasonable mitigation measure" (Oakland Heritage Alliance v. City of Oakland (2011) 195 Cal.App.4th 884, 906). Significant and unavoidable impacts from odor could result from the Proposed Project. See impact AQ.5. There are, however, mitigation measures that would reduce the severity of odor impacts; however, the impacts are not fully mitigable and would remain significant and unavoidable. Table 4.11-1, Common Environmental Noise Levels, compares 30 decibels to the noise level

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	of a quiet bedroom at night or a wilderness area. Several significant and unavoidable impacts from noise and vibration of the Proposed Project have been indicated in the impact summary table at the end of the Executive Summary and also in the impact analysis in Section 4.11, Noise and Vibration.
PUBM-66	Section 4.2, Air Quality and Greenhouse Gases discusses global climate change.
PUBM-67	The Proposed Project Applicant is E&B Natural Resources Management Corporation or E&B. EIR Sections 4.3 Biological Resources, 4.8 Safety, Risk of Upset, and Hazards and 4.10 Land Use and Recreation discuss the potential for, and the impacts from, an oil spill to biological resources and the community of Hermosa Beach and provides an evaluation of the Proposed Project within the City's Land Use Policies. Historical oil spills are also discussed in section 4.8. Section 4.2, Air Quality and Greenhouse Gases discusses impacts to air quality. Section 4.1, Aesthetics and Visual Resources discusses the visual impacts of the Proposed Project and includes photo simulations. Your views of the Proposed Project are acknowledged by the EIR preparers.
PUBM-68	Your comments regarding the story you heard on the radio are acknowledged by the EIR preparers.
PUBM-69	The CUP addresses this under Section 1, subsection 4, that a workover rig "or any other rig" shall be 90 days per year. If taken in isolation, this would limit the use of the full drilling rig to 90 days per year and daytime only. However, this section is only addressing the use of workover rigs, or any other type of rig that is used for workovers, and not a full drilling rig. This becomes clear when other sections of the CUP are examined which clearly state the assumption that drilling would occur for 24 hours per day, including: Section 3.2 "Security personnel shall be employed at all times during the drilling stage (24 hours)" Section 8.9c "During the drilling phase. Noise monitoring shall occur during a six-hour period between the hours from 10:00 P.M. to 7:00 A.M. at least once each month during the drilling phase of the Project." Section 1.12 "All wells must be drilled and completed within 55 months from the start of drilling of the first exploratory well" Therefore, when taken in context, Section 1.4 of teh CUP is referring to workover activities only. The 3-4 months of drilling and 7-9 months of test wold not be allowed to exceed 12 months, as per the CUP. However, the exact spilt is flexible.
PUBM-70	See Section 1.0, Introduction, for background history, legal issues, and the Settlement Agreement information.
PUBM-71	Section 4.1, Aesthetics and Visual Resources discusses the visual impacts of the Proposed Project and includes photo simulations. Your comments are acknowledged by the EIR preparers.
PUBM-72	Significant and unavoidable impacts from odor could result from the Proposed Project. See impact AQ.5. There are, however, mitigation measures that would reduce the severity of odor impacts; however, the impacts are not fully mitigable and would remain significant and unavoidable. Section 4.1, Aesthetics and Visual Resources discusses the visual impacts of the Proposed Project. Your comments on the Cost Benefit Analysis are acknowledged by the EIR preparers. CEQA calls for environmental review of discretionary projects at the earliest meaningful stage, to serve its purposes of public participation and informed decision-making. The detailed design of the facility has not been conducted at this time. However, there is sufficient information available that the feasibility of achieving equipment spacing that satisfies the intent of the codes and standards can be determined. Under CEQA, this is not

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	deferral of mitigation because the performance criteria, the specific codes and the standards that would be applied are well established. Measures, such as fire walls and vessel insulation, are well established practices in industry and could be applied at the Project Site. Unless the codes and standards can be satisfied, then the Project would not be allowed to move forward through the permit process. This is like any building Project that comes forward, and is required to pass codes and standards in the detailed drawings and permit stage. CEQA case law states: "for the kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process, the agency can commit itself to eventually devising [mitigation] measures that will satisfy specific performance criteria articulated at the time of Project approval," and that " a condition requiring compliance with regulations is a common and reasonable mitigation measure" (Oakland Heritage Alliance v. City of Oakland (2011) 195 Cal.App.4th 884, 906).
PUBM-73	Your comments encouraging residents to read the Executive Summary are acknowledged by the EIR preparers.
PUBM-74	CEQA calls for environmental review of discretionary projects at the earliest meaningful stage, to serve its purposes of public participation and informed decision-making. The detailed design of the facility has not been conducted at this time. However, there is sufficient information available that the feasibility of achieving equipment spacing that satisfies the intent of the codes and standards can be determined. Under CEQA, this is not deferral of mitigation because the performance criteria, the specific codes and the standards that would be applied are well established. Measures, such as fire walls and vessel insulation, are well established practices in industry and could be applied at the Project Site. Unless the codes and standards can be satisfied, then the Project would not be allowed to move forward through the permit process. This is like any building Project that comes forward, and is required to pass codes and standards in the detailed drawings and permit stage. CEQA case law states: "for the kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process, the agency can commit itself to eventually devising [mitigation] measures that will satisfy specific performance criteria articulated at the time of Project approval," and that " a condition requiring compliance with regulations is a common and reasonable mitigation measure" (Oakland Heritage Alliance v. City of Oakland (2011) 195 Cal.App.4th 884, 906).
PUBM-75	Your comments are acknowledged by the EIR preparers.
PUBM-76	The EIR addresses traffic impacts from the moving of the City Maintenance Yard in section 4.13, Transportation, sub section 4.13.7 along with a supplemental traffic analysis located in the appendix. CEQA case law states: "for the kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process, the agency can commit itself to eventually devising [mitigation] measures that will satisfy specific performance criteria articulated at the time of project approval," and that " a condition requiring compliance with regulations is a common and reasonable mitigation measure" (Oakland Heritage Alliance v. City of Oakland (2011) 195 Cal.App.4th 884, 906). The Emergency Response Plan and Oil Spill Contingency Plans would be developed as part of the regulatory requirements and would adhere to these performance standards.
PUBM-77	The drilling vibrations are discussed in section 4.11, Noise and Vibrations. The pipeline maps are shown in section 2.0, Project Description. Detailed facility plot plans are shown in Section 2.0, Project Description, which include the location of the flare, oil tanks, drilling area and a range of other equipment onsite. Liquefaction is discussed in Section 4.7, Geological Resources/Soils.