

Oil Drilling & Recovery Cost Benefit Analysis Community Presentation



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The analyses, projections, assumptions, rates of return, and any examples presented herein are for illustrative purposes and are not a guarantee of actual and/or future results. Project pro forma and tax analyses are projections only. Actual results may differ materially from those expressed in this analysis.

Presentation Outline

- **CBA Authors**
- **Context of CBA & Timeline**
- **Brief Summary of Conclusions:**
 - A. Estimates of Reservoir Volume**
 - B. Recovery Rate & Production Estimates**
 - C. Estimated City Revenues (Uplands & Tidelands)**
 - D. Estimated City Costs**
 - E. School & Education Foundation Revenues**
 - F. Oil Prices**

- **Kosmont Companies**
 - Economic, finance, and real estate advisory services
- **CGEOIL, LLC**
 - Registered geologist firm, specializes in geologic mapping, oil production forecasts, revenue sharing agreements

Context of CBA

- **City retained CBA Team to estimate the potential fiscal costs and benefits of approving or not approving proposed Project**
- **CBA is an independent, unbiased analysis and interpretation of agreements and relevant data**
- **CBA is a resource that includes a summary of key documents, objective analysis of data, and details of key costs and revenues**
- **Analysis is detailed, requires multiple assumptions, contains multiple estimates of future results, and various alternative scenarios**

CBA Timeline / Milestones

- **Jul 2013 – CBA team retained**
 - **Sep 23, 2013 – Public Scoping meeting**
 - **Feb 13, 2014 – Release of Draft CBA**
 - **Feb 2014 – Two public presentations; open house and planning commission presentation**
 - **Feb 13 – Apr 14, 2014 – Public comment period**
 - **May 5, 2014 – City Council Study Session & direction**
 - **Sep 16, 2014 – Requested CSLC guidance received**
 - **Sep 24, 2014 – Final CBA released**
 - **Sep 30, 2014 – City Council presentation and acceptance of CBA**
 - **Nov 2014 – City Council approved Ballot and DA language**
 - **Jan 23, 2015 – Release of DA Supplement to CBA**
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A – Estimate of Reservoir Volume

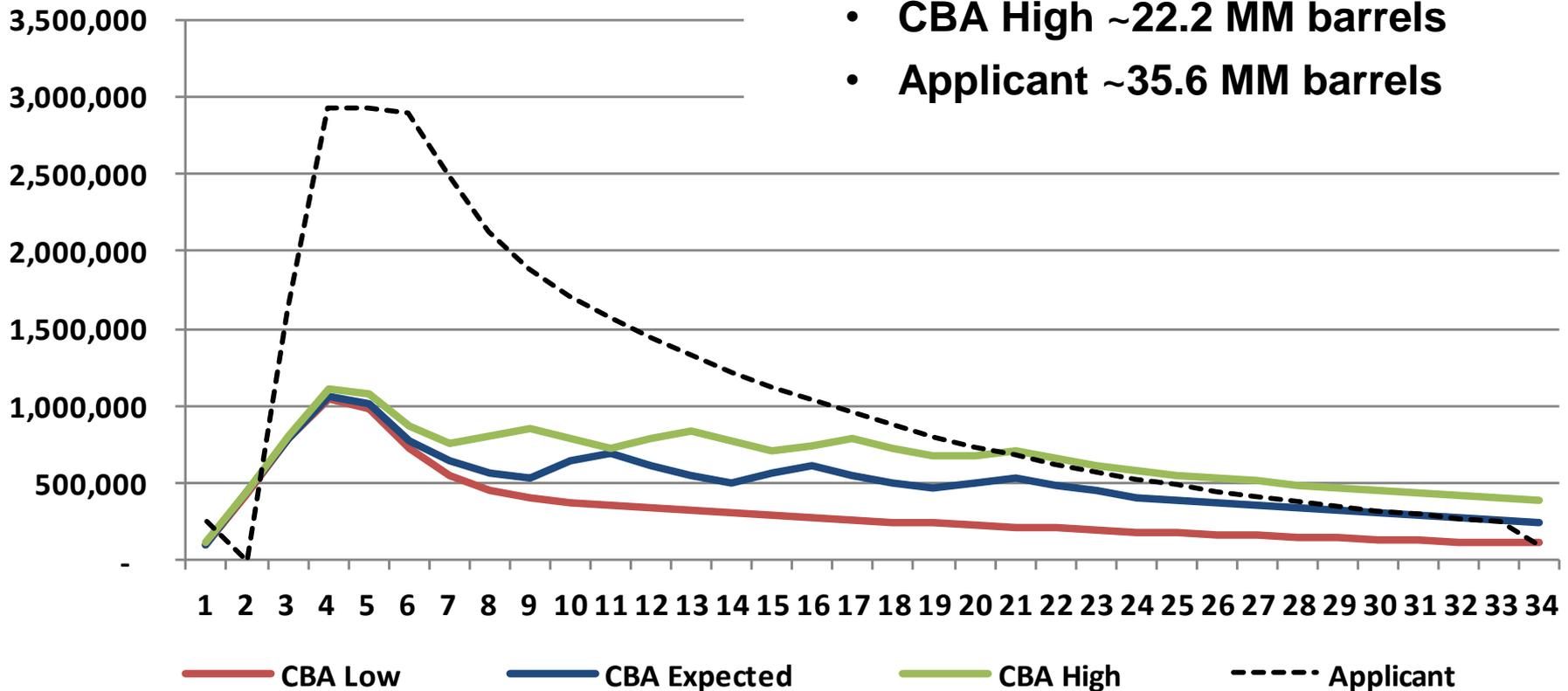
- All prior projections and those in the CBA are estimates only and reliant on profession opinion / assumptions
- Absent test drilling, no conclusive data for Hermosa Beach is available (multiple versions of scientific interpretation)
- CBA utilized raw data from prior reports to create volume estimates utilized in the CBA
- Based on this data CBA estimates of Oil In Place (*not the same as recoverable oil*) are:
 - 115 million barrels in the Tidelands
 - 32 million barrels in the Uplands

B – Recovery Rate & Production

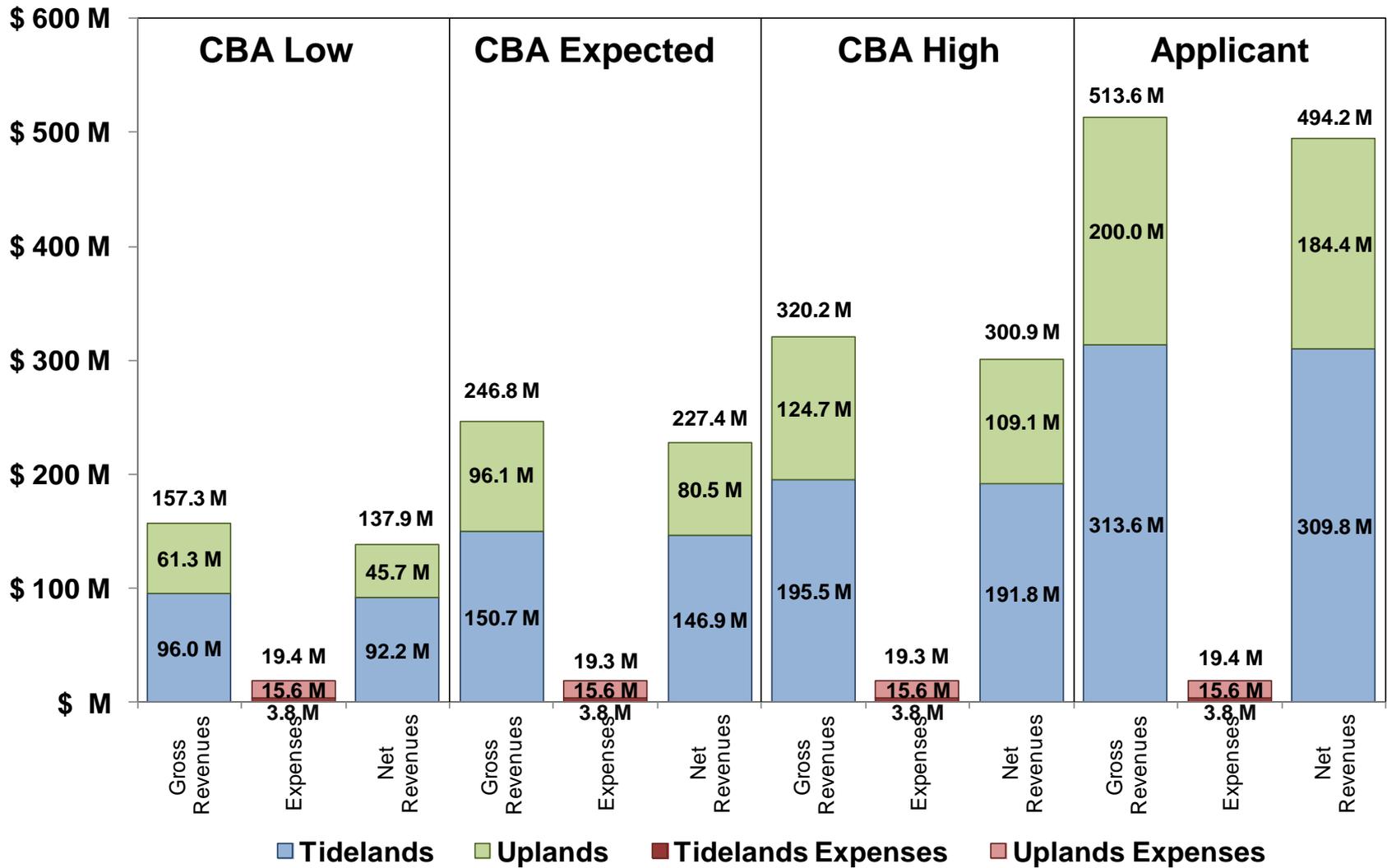
- **Recovery Rate refers to the amount of the Oil in Place that is estimated to be recoverable / extractable**
- **Actual amount of oil that will be produced contingent on geology, drilling technology, oil price / drilling investment, etc.**
- **Recovery rates in the CBA based on estimated probability ranges, and are:**
 - **CBA Low - 8.6% recovery rate = ~10.9 MM barrels**
 - **CBA Expected - 12.9% recovery rate = ~17.1 MM barrels**
 - **CBA High - 17.2% recovery rate = ~22.2 MM barrels**

B – Recovery Rate & Production

- CBA Low ~10.9 MM barrels
- CBA Expected ~17.1 MM barrels
- CBA High ~22.2 MM barrels
- Applicant ~35.6 MM barrels



C - Estimated City Revenues



*Estimates assume \$95 per barrel of CMS, DA Terms

D - Direct City Costs (If Approved)

• Temp City Yard Relocation	~ 3.1 MM
• Permanent City Yard Relocation	~ 10.0 MM
• Loss of Storage Site Revenue	~ 6.4 MM
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Total	~\$19.4 MM

- Costs ultimately expected to be paid from royalties. City may need to borrow some funds due to timing.

D - Direct City Costs (If Not Approved)

- Settlement Payment** **\$17.5 MM**
- New City Yard** **??***
- Existing City Yard Soil Cleanup** **??***

Total **\$17.5 MM**

- City has ~\$6.0 MM set aside, could borrow remaining \$11.5 MM or borrow up to entire \$17.5 MM**
- Estimated cost to borrow ~\$850k to ~\$1.7 MM / year based on various financing structures**

****Optional; if City Desires to Construct new City Yard and clean the site***

E – School & Education Foundation

- **School District to receive Royalty and Barrel Tax:**

California Midway Sunset \$ / Barrel

School District Net Rev (\$2014)	(CBA Fixed = \$95)										
	\$ 40.00	\$ 50.00	\$ 60.00	\$ 70.00	\$ 80.00	\$ 90.00	\$ 95.00	\$100.00	\$110.00	\$120.00	
CBA Low	\$ 0.9	\$ 1.0	\$ 1.0	\$ 1.1	\$ 1.1	\$ 1.2	\$ 1.2	\$ 1.2	\$ 1.2	\$ 1.3	
CBA Expected	1.4	1.5	1.5	1.6	1.7	1.7	1.8	1.8	1.9	1.9	
CBA High	1.8	1.8	1.9	2.0	2.1	2.2	2.2	2.3	2.4	2.5	
Applicant	3.1	3.2	3.3	3.5	3.6	3.8	3.8	3.9	4.0	4.2	

- **Applicant to provide 1% overriding royalty to Hermosa Beach Education Foundation**

California Midway Sunset \$ / Barrel

Ed Foundation Net Rev (\$2014)	(CBA Fixed = \$95)										
	\$ 40.00	\$ 50.00	\$ 60.00	\$ 70.00	\$ 80.00	\$ 90.00	\$ 95.00	\$100.00	\$110.00	\$120.00	
CBA Low	\$ 4.5	\$ 5.6	\$ 6.7	\$ 7.8	\$ 8.9	\$ 10.0	\$ 10.5	\$ 11.1	\$ 12.1	\$ 13.2	
CBA Expected	7.1	8.8	10.5	12.2	13.9	15.6	16.5	17.4	19.1	20.8	
CBA High	9.2	11.4	13.6	15.9	18.1	20.3	21.4	22.5	24.7	27.0	
Applicant	14.7	18.3	21.9	25.4	29.0	32.6	34.3	36.1	39.7	43.2	

*Please see the Note Regarding Oil Prices Evaluated beginning on page 3 of the CBA DA Supplement

F - Oil Prices

- **At time of release of draft CBA and Council acceptance of final CBA oil prices ranged from ~ \$90 – \$100 per barrel (of CMS); \$95 (\$2014) used as baseline in analysis**
- **Price was ~\$42 per barrel at time of release of DA supplement**
- **DA Supplement included an evaluation of ranges of \$40 - \$120 per barrel (\$2014)**
- **In Authors opinion Applicant may not proceed with proposed Project if prices remain low; unlikely prices will remain at lows for extended period of time**

F - Oil Prices

California Midway Sunset \$ / Barrel

(CBA Fixed = \$95)

Net Tidelands	\$ 40.00	\$ 50.00	\$ 60.00	\$ 70.00	\$ 80.00	\$ 90.00	\$ 95.00	\$100.00	\$110.00	\$120.00
CBA Low	\$ 37	\$ 47	\$ 57	\$ 67	\$ 77	\$ 87	\$ 92	\$ 97	\$ 107	\$ 117
CBA Expected	61	76	92	108	123	139	147	155	170	186
CBA High	80	100	121	141	161	182	192	202	222	243
Applicant	131	163	196	228	261	294	310	326	359	391
Net Uplands	\$ 40.00	\$ 50.00	\$ 60.00	\$ 70.00	\$ 80.00	\$ 90.00	\$ 95.00	\$100.00	\$110.00	\$120.00
CBA Low	\$ 11	\$ 17	\$ 23	\$ 30	\$ 36	\$ 43	\$ 46	\$ 49	\$ 55	\$ 62
CBA Expected	26	36	46	56	66	76	81	86	95	105
CBA High	38	51	64	77	90	103	109	116	129	141
Applicant	70	91	112	133	153	174	184	195	216	236
Net City Total	\$ 40.00	\$ 50.00	\$ 60.00	\$ 70.00	\$ 80.00	\$ 90.00	\$ 95.00	\$100.00	\$110.00	\$120.00
CBA Low	\$ 48	\$ 64	\$ 81	\$ 97	\$ 113	\$ 130	\$ 138	\$ 146	\$ 162	\$ 179
CBA Expected	86	112	138	163	189	215	227	240	266	291
CBA High	118	151	184	218	251	284	301	318	351	384
Applicant	201	255	308	361	414	468	494	521	574	627

*Please see the Note Regarding Oil Prices Evaluated beginning on page 3 of the CBA DA Supplement

Thank You

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