8. Glossary and Acronyms

8.1 Glossary of Terms

Alluvial fan
A fan- or cone-shaped deposit of sediment crossed and built up by streams.

Anode
The negative electrode during discharge.

Amperage
The magnitude of an electrical current, expressed in amperes

Archaeology
The study of the ancient and recent human past through material remains.

Auger
A tool with a helical bit for boring holes.

Bathymetry
The depth of the ocean relative to sea level, submarine topography.

Bell mouth
A tapered expanding opening, so named because the taper can resemble that of a bell shape.

Benthic zone
The ecological region at the lowest level of a body of water such as an ocean or lane, including the sediment surface and sub-surface layers.

Bentonite
An absorbent aluminum phyllosilicate, impure clay consisting mostly of montmorillonite.

Bight
Refers to a bend or curve in a geographic feature, usually a coast.

Biota
The animal and plant life of a particular region, habitat, or geologic period.

Cable plow
A burial tool in the form of a large sled that is deployed by the main cable ship. This device mechanically buries the cable to its desired depth by slicing through the ocean floor sediments, while the cable is fed through the plow and into the bottom of the furrow in one operation.

Cable pulling
An activity which cable is pulled through existing conduit. A plug would be placed at one end of the conduit. It would then be hydraulically pushed through the conduit. This pulls a cable through the pipe. Then the fiber-optic cable can be attached to the cable and be installed.

Cable regenerator
A piece of equipment that is part of the cable. This equipment is needed to retransmit the light pulses along the cable. Installed approximately every 35 miles.

Cable system
Refers to the larger system of cables which would be installed in phases for the proposed Project.

Cathodic protection
A technique used to control the corrosion of a metal surface by making it the cathode of an electrochemical cell.

Check valve
A one-way valve that allows fluid to only through it one way.

Coherent optical time-domain reflectometer
A measuring instrument for detecting faults in ultra-long optical submarine cables.

Conduit
A tube for protecting electrical or telecommunications wiring.

Continental shelf
The underwater landmass which extends from a continent, resulting in an area of relatively shallow water known as a shelf sea.

Conventional boring
A construction technique which utilizes the simultaneous boring of a horizontal hole and pushing of a conduit under an obstruction. Would be used in the event that the standard trenchless construction techniques are precluded, such as an underground geologic formation.

Direct current
The unidirectional flow of electric charge.

Dive platform
The primary work boat which would be used as the base of operations and coordination center for all underwater work by the dive team.

Drill string
The entire attached length of bore pipe. As the bore is lengthened during the bore process, additional sections of pipe are attached to the previous sections to form a contiguous string of equipment.

Drilling fluid
A non-toxic fluid, typically a solution of bentonite clay and water, which is circulated into the bore hole to prevent it from caving in and to coat the wall of the bore hole to minimize fluid losses. Also serves as a lubricant for the drill head and moves the drill cuttings back to the entry pit.

Ecological province
A subset of the National Hierarchical Framework of Ecological units. These are land classifications which are used to identify, describe, and map progressively smaller areas of land with increasingly uniform ecological features. There are eight levels of units in the United States. Province and Section, are discussed within this document. In particular, an Ecological Province is a unit of landed defined using major climate zones, native vegetation, and biomes.

Ecological section
See Ecological Province; Sections are units within Provinces that are defined by the origin of glacial deposits, regional elevation, distribution of plants, and regional climate.

Electroding
A technique for locating and identifying cables. A piece of equipment energizes the cable with a low frequency signal, and enables tests to be carried out on the cable without the power feed being connected to the cable under test.

Escarpment
A long, steep slope, especially one at the edge of a plateau or separating areas of land at different heights.

Ethnographic
The systematic study of people and cultures.

Frac-out
An event that occurs when the drilling fluids reach the surface, usually through fractures in the surrounding rock or sand.

Fathom
A unit of length equal to six feet (approximately 1.8m), chiefly used in reference to the depth of water.

Fiber-optic
A cable consisting of a bundle of glass threads, each of which is capable of transmitting messaged modulated onto light waves.

Fishing gear
Refers to the physical equipment used during fishing by recreational and commercial fisherman.

Flatfish grapnel
A piece of equipment used to find and locate surface-laid cable. The design is a flat diamond-shaped plate with prongs on either side. Please see Figure 2-15.

Floodplain
An area of land adjacent to a stream or river that stretches from the banks of its channel to the base of the enclosing valley walls and experiences flooding during periods of high discharge.

Friable soil
Soil which is easily crumbled.

Galvanized wire
Wire to which a protective zinc coting has been applied to prevent rusting and other corrosion.

Gifford grapnel
A chain grapnel consisting of units of four hooks at right angles to each other.

Hand jets
A construction tool which uses high-pressure water to remove sediment from the seafloor.

High-density polyethylene
A polyethylene thermoplastic made from petroleum. Commonly known for the production of corrosion-resistant piping

Holocene
The geological epoch which begins after the Pleistocene (approximately 11,700 years) and continues to present day. This period encompasses the growth and impacts of the human species worldwide, including all written history.

Horizontal directional drilling
A steerable trenchless method of installing underground pipes, conduits and cables in a shallow arc along a prescribed bore path by using a surface-launched drilling rig, with minimal impact on the surrounding area.

Hydraulic power
A system using interconnected pipes carrying pressurized liquid to transmit mechanical power from a power source, to equipment such as lifts or motors.

Inertial device
A navigation aid that uses a computer, motion sensors, and rotation sensors to continuously calculate the position, orientation, and velocity of a device.

In-hole mud motor
A pump which is placed in the drill string to provide additional power to the bit while drilling

Innerduct
The smaller conduits contained within a larger conduit.

Jurisdictional waters
Surface waters and watercourse under the jurisdiction of the U.S. Army Corps of Engineers as defined by the Clean Water Act and/or under the jurisdiction of the California Department of Fish and Wildlife as defined in the California Fish and Game Code.

Key observation points
Locations where the existing landscape was characterized. These are considered representative of the views in the immediate Project are.

Kilowatt
1000 Watts, used to express the rate of energy conversion or transfer with respect to time.

Landing manhole
The access point for the marine directional bores. These are concrete vaults which would contain the splice where the terrestrial and submarine cables would meet. These vaults would be approximately 8 feet (2 meters) wide, 12 feet (3.7 meters) long, and 9 feet (2.7 meters) deep, and would be buried with a cast-iron manhole cover 36 inches (91 centimeters) in diameter appearing at grade level when constructed in the street.

Liquefaction
A phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other rapid loading. When this happens the sudden change in stress condition causes the soil to behave like a liquid.

Local Coastal Program
A plan which incorporates the goals and policies of the California Coastal Act and identifies the location, type, density, and development standards for future development within the coastal zone.

Magnetometer
Measurement instruments used for two general purposes: to measure the magnetization of a magnetic material like a ferromagnet, or to measure the strength and, in some cases, the direction of the magnetic field at a point in space.

Mean high tide
The average of all the high water heights observed over a period of several years. Also known as the mean high water mark.

Milligauss
A measurement of magnetic flux density or magnetic induction. Defined as one Maxwell per square centimeter.

Nanotesla
A unit of measurement of the strength of the magnetic field.

Nautical mile
A unit of distance that is approximately one minute of arc measured along any meridian. By international agreement it has been set at 1,852 meters exactly.

Ocean ground bed
The ground for the high voltage which powers the submarine cable amplifiers.

Optical time-domain reflectometer
An instrument used to characterize and test optical fibers by using light scattering,

Overall visual sensitivity
A way of analyzing visual impacts by discussing the existing visual quality of the proposed Project area, the viewer concern, and the viewer exposure to the proposed Project.

Paleontology
The scientific study of live existent prior to, and sometimes including, the start of the Holocene epoch.

Pelagic
Of, relating to, or living in open oceans or seas rather than waters adjacent to land or inland waters.

Pilot boarding area
Pilot boarding areas are locations at sea where pilots familiar with local waters board incoming vessels to navigate their passage to a destination port.

Pipe pig
A device inserted into a pipeline which travels freely through it, driven by a fluid or product to perform a specific task within the pipeline.

Pleistocene
The geological epoch which lasted from about 2,588,000 to 11,700 years ago, spanning the world's recent period of repeated glaciations.

Polycyclic aromatic hydrocarbons
Organic compounds containing only carbon and hydrogen which are found in fossil fuels and in tar deposits. These compounds have been identified as harmful to human health.

Polyvinyl chloride
Commonly known as “PVC”, a synthetic plastic polymer commonly used in construction pipes.

Pot holing
A construction technique of digging a test hole to expose underground utilities to ascertain the horizontal and vertical location of the utilities.

Power feed equipment (PFE)
A terrestrial facility which would be constructed as part of the Proposed Project to convert and transmit commercial power to the cable regenerators.

Remotely Operated Vehicle (ROV)
A remotely operated vehicle, used for various tasks including cable laying and maintenance activities.

Scenic vista
A view that is visually or aesthetically pleasing and frequently seen by the public, including, but not limited to, natural lands or developed and undeveloped natural areas.

Sensitive species
Species which may be endangered, protected, or a candidate species for protection under an applicable regulation.

Sessile
Organisms which are fixed in place; immobile.

Shunt fault
A shunt fault occurs when the cable insulation becomes damaged, such that there is a short circuit from the metallic core to the seawater directly. In this situation the virtual earth point will move to the shunt fault location. As long as the Power Feed Equipment farthest from the shunt fault has the capability of generating the additional voltage required to maintain the same current, the cable system will continue to carry traffic.

Sonar
A technique that uses sound propagation to detect objects underwater.

Splice box
The housing in which fiber-optic cables begin or end.

Spud jet
An attachment at the head of the drill bit which hydraulically pushes fluid into the drill bit to aid in boring.

Staging area
An area which is designated for storage and preparation of project components and materials.

Strike slip fault
A fault where the fractures are nearly vertical and the fault movement is mostly horizontal.

Subsidence
The gradual caving in or sinking of an area of land

Surface access vault
Installed in tandem with the Landing Manhole, this vault would be installed to allow for additional submarine cable installation without additional surface disturbance. The surface access vault would be a 4-foot (1.2-meter) wide, 5-foot (1.5-meter) long, and 2.5-foot- (0.7-meter) deep concrete box with a steel traffic lid.

“Take”
Defined by the Endangered Species Act as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”

Traffic separation scheme
An area in the sea where navigation of ships is highly regulated. It is meant to create lanes in the water and ships in a specific lane are all going in (roughly) the same direction.

Tsunami
A series of waves in a water body caused by the displacement of a large volume of water, generally in an ocean or a large lake

Viewshed
The geographical area that is visible from a location. It includes all surrounding points that are in line-of-sight with that location and excludes points that are beyond the horizon or obstructed by terrain and other features (e.g., buildings, trees).

Voltage
The electric energy charge difference of electric potential energy transported between two points. Voltage is equal to the work done per unit of charge against a static electric field to move the charge between two points.

Water column
A conceptual column of water from the surface of a sea, river or lake to the bottom sediments. Used to determine the relative locations within a water of body which animals may inhabit.

8.2 Acronyms

AAG	Asia-America Gateway
ACOE	Army Corps of Engineers
ADT	Average daily traffic
AFY	Acre-Feet Per Year
AGR	Agricultural Supply
AIS	Automatic Identification Systems
AMS	Applied Marine Sciences
APED	Applicant-prepared environmental document
BMPs	Best Management Practices
BNM	Broadcast Notice to Mariners
Cal-OSHA	California Occupational Safety and Health Administration
CCA	California Coastal Act
CCC	California Coastal Commission
CCP	Caulerpa Control Policy
CCR	California Code of Regulations
CDP	Coastal development permit
CEC	California Energy Commission
CEQA	California Environmental Quality Act

CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CLUP	Coastal Land Use Plan
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
COP	California Ocean Plan
CPS	Coastal Pelagic Species
CRHR	California Register of Historical Resources
CVC	California Vehicle Code
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DMV	Department of Motor Vehicles
DPH	Department of Public Health
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FMP	Fishery Management Plan
FOCUS	Fiber-Optic Communication Underwater System
GWNI	Global West Network, Inc.
HA	Hydrologic Areas
HAPC	Habitat Area of Particular Concern
HCP	Habitat Conservation Plan
HMS	Highly Migratory Species
HPDE	High-density polyethelene
HR	Hydrologic Region
HSAs	Hydrologic Subareas
HU	Hydrologic Units

IMO	International Maritime Organization
IND	Industrial Service Supply
LARWCB	Los Angeles Regional Water Quality Control Board
LAX	Los Angeles International Airport
LCP	Local Coastal Program
LID	Low Impact Development
LIP	Local Implementation Program
MBTA	Migratory Bird Treaty Act
MCLs	Maximum Contaminant Levels
MEP	Maximum extent practicable
MHHW	Mean higher high water
MHW	Mean high water
MHWM	Mean high water mark
MLD	Most Likely Descendant
MMPA	Marine Mammal Protection Act
MUN	Municipal and Domestic Supply
N/L	Neptune/Longfellow
NAHC	Native American Heritage Commission
NCCP	Natural Communities Conservation Plan
NHMLAC	Natural History Museum Los Angeles County
NMSA	National Marine Sanctuaries Act
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOD	Notice of Determination
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination system
NRHP	National Register of Historic Places
OGB	Ocean ground bed
ONMS	Office of National Marine Sanctuaries
OSHA	Occupational Safety and Health Administration
PAHs	PCBs, polycyclic aromatic hydrocarbons
PFE	Power feed equipment
PFMC	Pacific Fishery Management Council

PPV	Peak particle velocity
PRC	Public Resources Code
ROV	Remotely operated vehicle
ROW	Right-of-way
RPZ	Runway Protection Zones
RWQCB	Regional Water Quality Control Board
SCB	Southern California Bight
SCEMP	Southern California Eelgrass Mitigation Policy
SOC	Statement of Overriding Considerations
SPA	Specific Plan Area
SPCP	Spill Prevention and Contingency Plan
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCP	Traditional cultural property
TDS	Total dissolved solids
TGN	Tyco Global Network
TIS	Traffic Impact Studies
TSS	Traffic Separation Scheme
USACE	U.S. Army Corps of Engineers
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
VTS	Vessel Traffic Services
WDR	Waste discharge requirements
WMA	Watershed Management Area