

Woodside Natural Gas Inc.
OceanWay Secure Energy
Los Angeles, California

Exhibit B
Topic Report 1 – Aesthetics



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Acronyms and Abbreviations

CEQA	California Environmental Quality Act
cm	centimeter
CM	Conservation Measure
DWP	Deepwater Port
ft	foot
GPS	Global Positioning System
HDD	Horizontal Directional Drilling
IGIF	Inert Gas Injection Facility
km	kilometer
KOP	key observation point
LAX	Los Angeles International Airport
LNG	Liquefied Natural Gas
m	meter
mm	millimeter
NM	nautical mile
OceanWay	OceanWay Secure Energy Project
PLEM	Pipeline End Manifold
RCTS	Receiving and Custody Transfer Station
RLNGC	Regasification LNG Carriers
ROW	right of way
SCG	Southern California Gas Company
SCV	Submerged Combustion Vaporizer
SPM	Single-Point Mooring
USCG	U.S. Coast Guard
WAAS	Wide Area Augmentation System
Woodside	Woodside Natural Gas, Inc.

1.0 Aesthetics

Woodside Natural Gas Inc. (Woodside) is proposing to bring natural gas into Southern California by using specially designed Liquefied Natural Gas (LNG) carriers that are equipped with regasification equipment on board, termed Regasification LNG Carriers (RLNGCs). At the offshore end of the deepwater port (DWP), the RLNGC will pick up a single point mooring (SPM) buoy, regasify the LNG using ambient air as a heating medium, and deliver the natural gas into dual subsea pipelines to shore. Woodside has named this project the OceanWay Secure Energy Project (OceanWay).

The port site will be located in the Santa Monica Basin, in approximately 3,000 feet (ft; 900 meters [m]) of water, over 21 miles¹ (34 kilometers [km]) from the nearest point on the mainland, and approximately 18 miles (29 km) from the western end of Santa Catalina Island. There will be two SPM buoys at the port site, located approximately 12,000 ft (3,600 m) apart. Each buoy will be connected to a subsea pipeline by a set of risers attached to a Pipeline End Manifold (PLEM) located on the seabed. The two PLEMs, one for each SPM buoy, will connect to separate but interconnected 24 inch (nominal 600 millimeter [mm]) outside diameter pipelines, and the two pipelines will be laid in parallel on the seafloor, nearly all the way to the shore.

The port site will be approximately 27 miles (44 km) southwest of Los Angeles International Airport (LAX) outside the 12 nautical mile (NM) limits of U.S. territorial waters of the West Coast and coastal islands. The landfall for the pipeline will be at the northern end of LAX and will be accomplished using horizontal directional drilling (HDD) with a seaward HDD of approximately 4,000 ft (1,200 m). The use of this technology will allow the pipelines to be placed beneath the seabed out to approximately 3,000 ft (900 m) from the shoreline in a water depth of approximately 37 ft (11 m) and will avoid disturbance to the beach. The overall length of the offshore pipeline route from the PLEM locations to the shoreline is approximately 35 miles (56 km). The two onshore pipelines will run approximately 4 miles (6 km) from the shoreline beneath the coastal dunes and under city streets to the Receiving and Custody Transfer Station (RCTS). The twin pipelines will be installed using conventional HDD methods approximately 2,500 feet (750 m) under the dunes and Pershing Drive from the shore crossing HDD drilling location to a receiving site within the secure area of LAX property. From the terminus of the dune crossing HDD, the pipelines will be installed using conventional trenching for the majority of the distance to the RCTS with boring at major intersections. Woodside has purchased a 3-acre (1.2 hectare) commercial property that includes an existing 57,000 square foot (5,300 square meter) warehouse / office building that will serve as the RCTS site. Downstream of the RCTS the gas distribution pipeline will continue exclusively under city streets and will begin as a single 36 inch (nominal 900 mm) pipeline extending approximately 0.25 miles (0.4 km) to the first tie-in point with the existing natural gas transmission grid of Southern California Gas Company (SCG). If market demand supports further expansion, the distribution pipeline will continue from the first tie-in point as a 24 inch (nominal 600 mm) diameter pipeline and extend an additional distance of approximately 12 miles (19 km), consisting of an 11 mile (18 km) mainline and 1 mile (1.6 km) lateral tying into the gas grid at two more locations for a total of three tie-ins. An Inert Gas Injection Facility (IGIF), comprised of nitrogen generation and compression equipment for Wobbe number control, will be housed inside the existing warehouse on the RCTS site.

Exhibit A/Project Description provides a comprehensive description of the proposed Project and should be consulted for additional project-specific information and figures.

This Topic Report identifies the current aesthetic resources in the vicinity of the offshore and onshore components of the OceanWay DWP. It outlines the regulatory setting and identifies appropriate significance criteria for evaluating Project impacts. This report also describes potential impacts on visual resources resulting from the construction and operation of the DWP. Finally, this report presents conservation measures

¹ Note: mileages are presented as statute miles unless noted as nautical miles (NM).

that Woodside will implement during the life of the Project to minimize or eliminate impacts on aesthetic resources.

The primary focus of the analysis presented in this Topic Report is the visual impact of the construction of the OceanWay Project as well as the visual impact of the RLNGC when at the DWP. Included in this topic report are visual simulations of the RLNGC from three locations in the region: (1) Malibu Beach/Point Dume State Park; (2) Palos Verdes Peninsula; and (3) Dockweiler State Beach area.

Construction machinery, activities and materials will be visible from existing residential areas and public lands on a temporary basis and will have short-term aesthetic impacts. The impact to the aesthetic values at Dockweiler Beach where the pipeline will come ashore, however, will be minimized due to the use of HDD technology. The RLNGC will create a new source of light during Project operations, that will make the vessel visible at night and will be visible on the horizon from elevated locations during the day, however because of its distance from shore and the other activities in the area that would affect visual resources in a comparable way, the presence of the RLNGC will not substantially degrade views. The onshore pipelines will be buried and will not affect visual resources although the RCTS/IGIF will be an above ground facility that will be visible to people in the area. The visual character of the RCTS/IGIF will be consistent with the surrounding light industrial facilities in the area, so the aesthetic impact will be less than significant.

1.1 Environmental Setting

The affected environment consists mainly of geographic landmarks, residential neighborhoods, public beaches, parks, and the ocean surface. Daytime, dusk, dawn, and nighttime views along the shore consist principally of cliffs, beaches, seashore, open waters of the Pacific, and the offshore islands. Recreational views originating offshore are consistent with activities of boat watching, fishing, bird watching, and whale watching, and general appreciation of the sea.

The RLNGC will be recognizable during clear atmospheric conditions day and night out to a distance of approximately 30 to 35 miles (48 to 56 km). Therefore, only locations within this range of distance, from Port Hueneme to Angels Gate Park (near the Port of Los Angeles), Santa Catalina Island and islands of the Channel Islands National Park, are included in this discussion. These locations generally orient toward the offshore Project site and, due to the quantities and general scenery expectations of viewers, each fits recognized standards for designation as key observation points (BLM 1984) and highly scenic areas. Marine layer atmospheric conditions will diminish the distance at which the RLNGC will often be recognizable.

Figure 1-1 shows a view at dusk from Rancho Palos Verdes to the southwest. The ship lights at the upper right are approximately half the distance and thus twice the brightness than will be RLNGC lights.

The Pacific Coast Highway 1 (CalTrans 2004), local roadways, piers, and a network of seashore trails afford residents and visitors viewing opportunities of the coastal environment and, particularly, the ocean.

Prominent cultural locations that fit recognized standards for designation as key observation points (KOPs) include Hermosa Beach and Santa Monica Piers, Pacific Palisades, Palos Verdes Estates, Redondo Beach Marina, Dockweiler, Malibu Beach Marina State Beach, and Channel Islands National Park campgrounds and landings. Industrial and commercial elements comprise lesser (although, in the cases of power plants and large structures, more visually apparent) features of the affected area. Commercial fishing, naval, and recreational vessels are also a common feature of the marine viewshed.

Figure 1-2 is a map of locations of resource and conservation areas in the area of the Project. **Figures 1-3 through 1-8** provide photographs of existing and simulated conditions in the Project area. **Topic Report 7/Land Use and Recreation** contains detailed descriptions of the characteristics, locations, and extents of influential land use elements in the Project area, particularly those in areas of pipeline landfall.

1.2 Regulatory Setting

There are no Federal regulations for aesthetics applicable to the Project area. However, the State of California's Coastal Act does address aesthetics. The regulation states as follows: "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting."

The California Environmental Quality Act (CEQA) also requires that significant environmental effects impacting aesthetics be identified and analyzed. A significant effect is defined as a substantial or potentially substantial adverse change in the environment. CEQA requires consideration of both short term and long term effects.

1.3 Impact Analysis and Conservation Measures

This section discusses the potential impacts on aesthetics from construction and operation of the OceanWay Project (port site, offshore and onshore pipelines and associated facilities). By including a potential impact in this analysis, Woodside has determined that such an impact might occur given this sort of large construction project in this location. However, whether or not a potential impact would actually occur or would be significant is discussed in the subsequent supporting text. Conservation Measures (CM) to reduce or eliminate significant impacts are presented following each listed potential impact, and are keyed to the designation of each potential impact. Where potential impacts are judged not to occur or are judged not to be significant, Woodside has explicitly indicated no conservation measures are proposed.

Because the OceanWay Project will not have significant aesthetic impacts, Woodside is proposing no conservation measures to address aesthetics impacts.

1.3.1 Offshore Construction

Impact

AESTH-1²: Degradation of Offshore Aesthetic Quality during Construction

The aesthetic quality of the offshore area may be degraded during construction due to the presence of the barges, tug/supply vessels, dredging vessels, and cranes.

Construction of the pipeline offshore and nearshore will require barges, tug/supply vessels, dredging vessels, and cranes. The U.S. Coast Guard (USCG) requires these construction vessels to display lights during nighttime hours. Nearshore construction vessels will be present for approximately 125 days at a distance of approximately 3,000 ft (900 m). Construction and installation of the two offshore pipelines is estimated to take 111 days. Thus, construction vessels and barges will be present offshore or nearshore for approximately 7 months continuously (noting some overlap between these two sets of actions).

Offshore pipeline construction vessels, machinery, activities and materials will be visible on a temporary basis and will cause short-term aesthetic impacts. These short term impacts will be reduced to a level of less than

² Note that Impacts have been identified in this section using an "AESTH" (i.e., "aesthetics" impact) designation, while the associated conservation measures have been identified using a "CM-AESTH" (i.e., "conservation measure" to address the "aesthetics" impact) designation.

significant by avoiding construction during peak use periods, as called for in CM-LU-2 and CM-FSH-2 and CM-FSH-5. Long-term impacts will not occur.

Conservation Measure

CM-AESTH-1: No conservation measures required. No significant impacts to the aesthetics will occur due to the presence of construction barges, vessels and cranes.

1.3.2 Onshore Construction

Impact

AESTH-2: Degradation of Onshore Aesthetic Quality during Construction

The aesthetic quality of the onshore area will be temporarily degraded during construction due to the presence of pipeline construction machinery, activities, fugitive dust, and materials.

The onshore pipeline will be approximately 16 miles (26 km) long and consist of approximately 4 miles (6.4 km) of twin 24 inch (600 mm) diameter pipelines from the shoreline to the RCTS/IGIF, ¼ mile (.4 km) of a single 36 inch (900 mm), and approximately 12 miles (19 km) of a single 24 inch (600 mm) diameter pipeline. Utilizing a single pipeline construction spread, the onshore pipeline construction will require approximately 8 months for completion, typically proceeding at 300 ft (100 m) per day, including tie-ins. Construction will occur 4 days per week (Monday through Thursday), from 9 a.m. to 3 p.m.

The impact on the aesthetic values at Dockweiler Beach will be minimized due to the application of HDD technology. Onshore machinery, activities, and materials will be visible on a temporary basis and will cause short-term impacts. Visual effects from construction activities may include fugitive dust. The onshore pipeline will be positioned underground; thus, the pipeline will not cause permanent aesthetic impacts. Since the pipelines will be installed under the dunes using conventional HDD there would be no removal of trees or other larger vegetation elements in the onshore right of way (ROW) that would cause adverse impacts to visual receptors in the vicinity of the ROW. Thus, only short-term aesthetic impacts will occur as a result of the installation of the onshore pipeline. These impacts would be reduced by scheduling construction to avoid peak use periods (CM-LU-2).

Conservation Measure

CM-AESTH-2: No conservation measures required. The constructed pipeline will be positioned underground, and thus will not cause short-term or long-term aesthetic impacts. The construction of the RCTS/IGIF will be short term and consistent with the other redevelopment planned for the area, so short-term impacts will be insignificant. For these reasons, no conservation measures have been proposed.

1.3.3 Offshore Operations

Impact

AESTH-3: Degradation of Offshore Aesthetic Quality due to the Presence of RLNGCs and Support Vessels

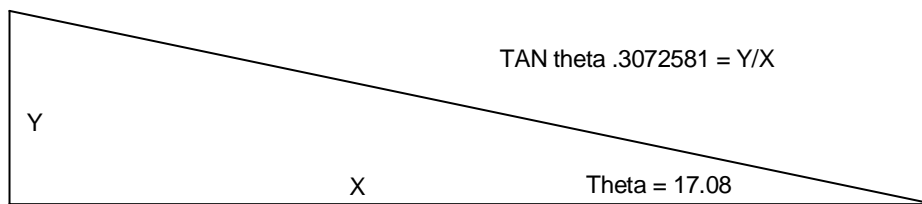
The aesthetic quality of the offshore area will be affected during operations due to the presence of the RLNGCs and support vessel(s).

Due to the magnitude of distance between potential observer locations and the Project, curvature of the earth plays a role in the estimation of visibility of the RLNGC from locations onshore. The earth curves at the rate of

roughly 7.9 inches per mile (20 centimeter [cm] per km). Therefore, at a distance of 20 miles (32 km) from the shoreline, the lower 8.2 ft (2.4 m) of the RLNGC will be hidden from the view of a person with eye-level of 5 ft (1.5 m) above the water. The overall height of the RLNGC is approximately 125 ft (38 m); thus, given clear visibility (conducive atmospheric conditions), approximately 117 ft (36 m) vertically of the RLNGC will be visible to a person standing at a distance of 20 miles (32 km). It should be noted that refraction of light near the visual horizon affects the clarity of features, resulting in less clarity at greater distance. The extent of refraction is influenced by ephemeral meteorological conditions and, as such, is beyond reliable calculation.

Figures 1-3 through **1-8** are photographs taken from Dockweiler State Beach, Malibu Beach/Point Dume, Palos Verdes Estates showing existing conditions and visual simulations of the same scene with inclusion of two RLNGCs and one container ship in the northbound shipping lane. Photography used to document existing conditions was conducted with a 6.3 megapixel digital single lens reflex camera with 56mm (actual) lens, mounted on a tripod. Each tiff image file produced was approximately 18 megabytes in size. No color-correcting or sharpening was performed on the images. Geographic coordinates of each photo point were located with a Magellan – Meridian Platinum Global Positioning System (GPS) receiver, Wide Area Augmentation System (WAAS)-enabled, and datum of NAD83. A Brunton compass was used to ensure correct direction of photography.

The following diagram shows the equation used to determine the corresponding size of the ship as it would appear in a visual simulation photograph. $\tan \theta = Y/X$, where X is the distance from the simulation point to the ship, Y is the distance from the center of the photograph to the edge of the photograph, and theta is half the angle of view (17.08 degrees) of the camera lens (56mm).



For the Dockweiler Beach image, the distance from the simulation point to the ship (X) is 28.3 miles (45.5 km), and the distance from the center of the photograph to the edge of the photograph (Y) is 7.875 inches (200 mm; half of photo), representing a distance of 45,911 feet (13,993 m). The length of the RLNGC is approximately 1,100 feet (335 m), which equates to 0.19 inches (4.8 mm) in the Dockweiler Beach image.

For the Malibu-Point Dume image, the distance from the simulation point to the ship (X) is 21.8 miles (35 km), and the distance from the center of the photograph to the edge of the photograph (Y) is 7.875 inches (200 mm; half of photo), representing a distance of 35,366 feet (10,780 m). The 1,100 foot long (335 m) RLNGC equates to 0.24 inches (6.17 mm) in the Malibu-Point Dume image.

For the Palos Verdes Estates image, the distance from the simulation point to the ship (X) is 23.5 miles (37.8 km), and the distance from the center of the photograph to the edge of the photograph (Y) is 7.875 inches (200 mm; half of photo), representing a distance of 38,124 feet (11,620 m). The 1,100 foot long (335 m) RLNGC equates to 0.22 inches (5.6 mm) in the Palos Verdes Estates image.

A comparison of the existing conditions photographs and the visual simulation images provided in **Figures 1-3** through **1-8** show that the RLNGCs will be visible to observers from Dockweiler State Beach, Malibu

Beach/Point Dume, Palos Verdes Estates. However, the overall visual impact of the RLNGCs will be lessened due to the presence of other large ships, tankers, and barges in the viewshed.

Onshore viewers may occasionally observe lighting on the RLNGCs. However, commercial vessels transiting the Project area at night have light requirements similar to the RLNGCs. Also, Woodside has committed to minimizing the lighting on the RLNGCs to minimize potential impacts to foraging and migratory birds. The conservation measures that Woodside will implement are discussed in Section 3.3.3 of **Topic Report 3/ Biology**. Thus, although the RLNGCs will create new sources of light, they would not substantially change or degrade nighttime views from onshore or offshore areas.

Helicopters, workboats, and crew boats will be utilized for transporting personnel and supplies to the OceanWay Project site. These vessels will contribute less than significant aesthetic impacts.

Recreational boaters' views and scenery expectations could be affected by the RLNGCs, depending upon their distance and orientation relative to the ship. Recreational boaters within the foreground view, approximately 1 mile (1.6 km), will experience substantial visibility and details of the RLNGCs, resulting in visual impacts. However, there is relatively continuous passage and presence of ships and tankers in foreground, middle ground, and background views through the shipping lanes to Port Hueneme, Port of Long Beach, and Port of Los Angeles. The overall impact of the RLNGCs will be lessened due to the presence of other large ships, tankers, and barges. Short-term and long-term impacts will be less than significant.

Conservation Measure

CM-AESTH-3: No conservation measures required. The overall impact of the RLNGCs will be decreased by the presence of other large sea vessels. Therefore, the impact is less than significant, and no conservation measures are proposed.

Impact

AESTH-4: Degradation of Aesthetic Quality due to the Presence of the Subsea Pipelines.

The long-term aesthetic quality of the offshore area will not be degraded due to the presence of the subsea pipelines.

The offshore post-construction pipelines will be on the ocean floor and, as such, their operation will not cause a long-term direct aesthetic impact to viewers on land or sea.

Conservation Measure

CM-AESTH-4: No conservation measures required. As the pipelines will be on the ocean floor, they will not cause a direct aesthetic impact to viewers on land or sea, and therefore no conservation measures have been proposed.

1.3.4 Onshore Operations

Impact

AESTH-5: Degradation of Onshore Aesthetic Quality due to the Presence of Onshore Facilities

The aesthetic quality of the onshore area will be degraded during operations due to the presence of the aboveground RCTS/IGIF, underground pipeline and periodic aboveground maintenance.

The onshore RCTS and IGIF will each be located in an existing industrial area with perimeter security chain link fencing and security lighting. The RCTS piping will be visible outside the fencing but the IGIF will be contained within the existing building. Due to the aesthetic character of existing land use activities, the visual impacts of the facility will be similar to the surrounding land uses. Because the onshore post-construction pipeline will be positioned underground, its day-to-day operation will not cause long-term direct aesthetic impact in the environment. Due to the magnitude of ongoing street activity and existing signage, the presence of additional pipeline identification signage, maintenance vehicles and materials will result in no visual impacts.

Conservation Measure

CM-AESTH-5: No conservation measures required. The RCTS/IGIF will have no significant aesthetic impacts, and therefore no conservation measures are proposed.

1.4 Alternatives

Consistent with good engineering and business practices, and to facilitate the environmental review under NEPA and CEQA, Woodside considered a variety of alternatives when developing the OceanWay Project. This section discusses the impacts to aesthetic values caused by the nine alternatives to the proposed Project. Project alternatives include: No Action alternative (no project); AES Alternative DWP and associated onshore pipeline routes; LAX south shore crossing; onshore pipeline route alternatives; Submerged Combustion Vaporization (SCV) as an alternative vaporization technology; burying segments of the pipelines on the ocean floor; an alternate site for the RCTS; an alternate method for installing the pipeline across the dunes; and refilling the pit excavated for the seaward end of the HDD. Each of these alternatives is summarized below. **Topic Report 13/Alternatives** presents a more comprehensive discussion of each of these alternatives.

1.4.1 No Action Alternative

The No Action Alternative means that the OceanWay Project would not go forward and that none of its associated facilities would be installed. Accordingly, none of the environmental impacts identified for the construction and operation of the proposed Project would occur. In the event that energy needs of the region must be satisfied by other LNG or natural gas pipeline projects, the impacts of such projects are likely to be comparable in nature and magnitude to the impacts associated with the OceanWay Project.

1.4.2 AES Alternative DWP and Associated Onshore Pipeline Route

The proposed AES Alternative DWP would be located approximately 20 miles (32 km) offshore of Orange County, with the offshore pipeline making landfall in Orange County at Huntington Beach, near the south end of Newland Street. The onshore pipeline would run approximately 24 miles (39 km) to the north and east across city streets of Orange County, making a connection with the SCG transmission system near the city of Orange.

The locations within the coastal area/visible range, from Palos Verdes Peninsula to Dana Point, Santa Catalina Island, and San Clemente Island, are included in this discussion. These locations generally orient toward the offshore AES Alternative DWP and, due to the quantities and general scenery expectations of viewers, each fits recognized standards for designation as key observation points (BLM 1984). Marine layer atmospheric conditions would diminish the distance at which the RLNGC would be recognizable.

The Pacific Coast Highway 1 (CalTrans 2004), local roadways, including Harbor Scenic Way, piers, and the network of seashore trails afford residents and visitors with viewing opportunities of the coastal environment and, particularly, the ocean. **Figure 1-9** shows cultural and natural landscapes in the area of the AES Alternative. **Figure 1-10** shows a simulation of the two RLNGCs at the AES alternate DWP site.

Affected landmarks, designated parks, and public nature reserves in the region are represented by Aliso Beach Park, Angels Gate Park, Bluff Park, Crystal Cove State Park, Huntington Central Park, Main Beach Park, Peninsula Park on Balboa Island, Salt Creek Beach Park, Sunset Beach, and the Palos Verdes Peninsula. These locations fit recognized standards for designation as key observation points.

Impacts for this alternative would be similar to those for the proposed DWP and pipeline route. As with the proposed Project, Woodside would propose no conservation measures for this alternative.

1.4.3 LAX South Shore Crossing

The LAX south shore crossing would involve a more southerly route for the offshore pipelines, and offshore and onshore HDD entry points approximately a mile (1.6 km) and 1.2 miles (1.9 km) respectively, south of the proposed routing. Because the installation methods for both the proposed and this alternative route would be essentially the same, the impacts to aesthetic resources would be the same from construction. Also, since neither the proposed Project nor this alternative would have significant aesthetic impacts from operations, the impacts from either alternative would be comparable.

1.4.4 Onshore Pipeline Alternatives

From the onshore end of the HDD pipeline segment there are multiple alternative routes to the identified tie-in point with SCG's Line 765 near the intersection of Otis and Santa Ana in South Gate. Because the installation methods for both the proposed and these alternative routes would be the same, the impacts to aesthetic resources would be the same from construction. Also, since neither the proposed Project nor these alternatives would have significant aesthetic impacts from operations, the impacts from these alternatives would be comparable to those of the proposed Project.

1.4.5 Alternative Vaporization Technology

Submerged Combustion Vaporization (SCV) is a commonly used technology for regasification of LNG and heating of natural gas for LNG projects. The use of SCV would eliminate the need for the large fan systems as required for the OceanWay Project. Visual impacts from the use of SCV would therefore be less than for the proposed Project.

1.4.6 Burying a Segment of the Pipelines on the Ocean Floor

One or more sections of the offshore pipeline would be buried where conflicts with the fishing industry might occur as a result of the pipeline installation or operation. Burial of a portion of the pipeline would result in the pipeline installation vessels being on site for a longer period of time and some other types of vessels being present as well. However, the extra duration would be on the order of a few weeks, the other vessels would be indistinguishable from the normal pipe laying vessels, and the distance from shore would be sufficient to limit the visual impacts to the public. While impacts would be somewhat more than for the proposed Project, these impacts would still be insignificant.

1.4.7 Alternative RCTS Location

The alternative RCTS site would be constructed and operated between Belford Avenue and Airport south of 93rd Street, approximately two blocks west of the proposed site. The aesthetic character of this area is industrial and impacts would not be more than for the proposed Project and these impacts would be less than significant.

1.4.8 Open Trenching Alternative for Dunes Crossing

The dual 24 inch (600 mm) pipelines would be installed across the dunes between the HDD work area and just east of Pershing using open trenching. Open trenching would cause short-term impacts to the public from trenching, pipeline installation, and backfilling equipment. Short-term impacts would be more than for the proposed Project, but would not be significant due to their short duration. Long-term impacts would be less than significant because the site would be restored to its preconstruction condition.

1.4.9 Active Backfilling Alternative for Shore Crossing HDD Material

The dredge material that will be removed from the shore crossing HDD receiving pit would be actively returned into the excavation. Refilling the dredge pit would cause short-term impacts to the public from construction activity due to dredging equipment being on-site from roughly twice as long as without refilling the pit. Long-term impacts would be no different from those of the proposed Project, and would be less than significant.

1.5 References

California Department of Transportation (Caltrans). 2004. Guideline for the Official Designation of Scenic Highways – A List of Eligible and Officially Designated Routes. <http://www.dot.ca.gov/hq/LandArch/scenic/scpr.htm>.

U.S. Department of the Interior, Bureau of Land Management (BLM). 1984. Visual Resource Management System Manual. <http://www.blm.gov/nstc/VRM/8410.html>

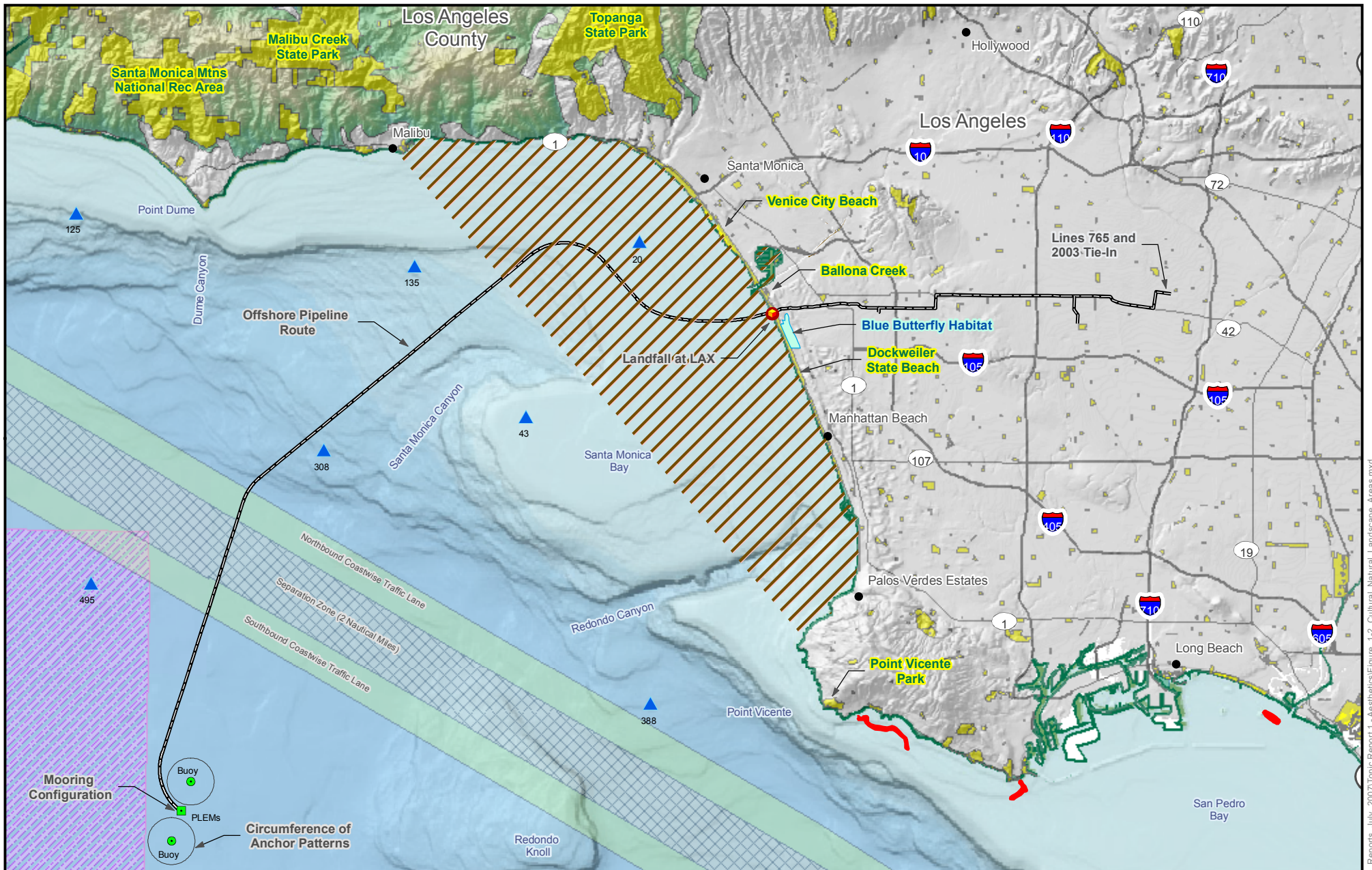
Figures



Figure 1-1
**PHOTOGRAPH AT DUSK
RANCHO PALOS VERDES**
OceanWay Secure Energy



ENSR | **AECOM**



Legend

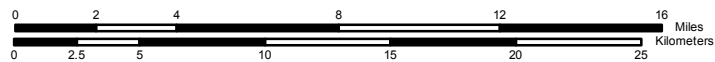
- OceanWay Proposed Route & SCG System Upgrade Routes
- Landfall Point
- Mooring Buoys
- PLEMs

- NOAA Soundings (Fathoms)
- Urban Areas
- Major Roads

- Marine Sanctuaries
- Santa Monica Bay Area Closure
- Marine Protected Areas
- Cowcod Conservation Areas

- Parks, Conservation & Recreation Areas

Figure: 1-2



Base Map: The Southern California Coastal Ocean Observing System, National Geophysical Data Center.

Map of Locations of Cultural & Natural Landscapes in the Region
OceanWay Secure Energy Project





Figure 1-3
**EXISTING CONDITION
DOCKWEILER STATE
BEACH**
OceanWay Secure Energy



ENSR | AECOM



RLNGC Ships

Container Ship at 18 Miles

Figure 1-4
VIEW SIMULATION
LNG SHIP 28.3 MILES
SOUTHWEST
DOCKWEILER STATE BEACH
OceanWay Secure Energy



ENSR | AECOM



FILENAME:

Figure 1-5
**EXISTING CONDITION
MALIBU BEACH /
POINT DUME**
OceanWay Secure Energy



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RLNGC Ships

Container Ship at 11 Miles

Figure 1-6
**VIEW SIMULATION
LNG SHIP 21.8 MILES
SOUTH OF MALIBU
BEACH / POINT DUME**
OceanWay Secure Energy



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Figure 1-7
**EXISTING CONDITION
PALOS VERDES
ESTATES**
OceanWay Secure Energy



ENSR | **AECOM**

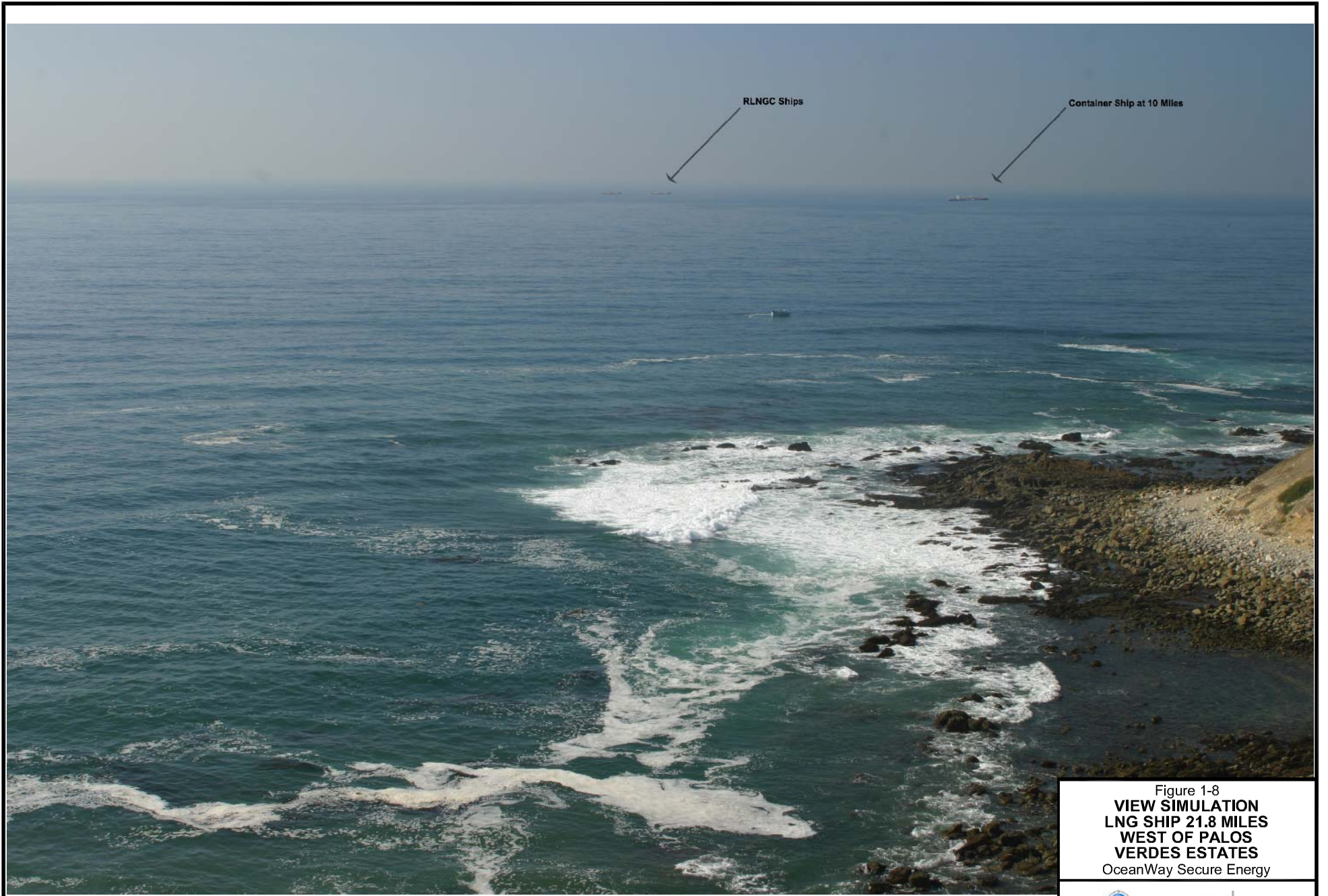
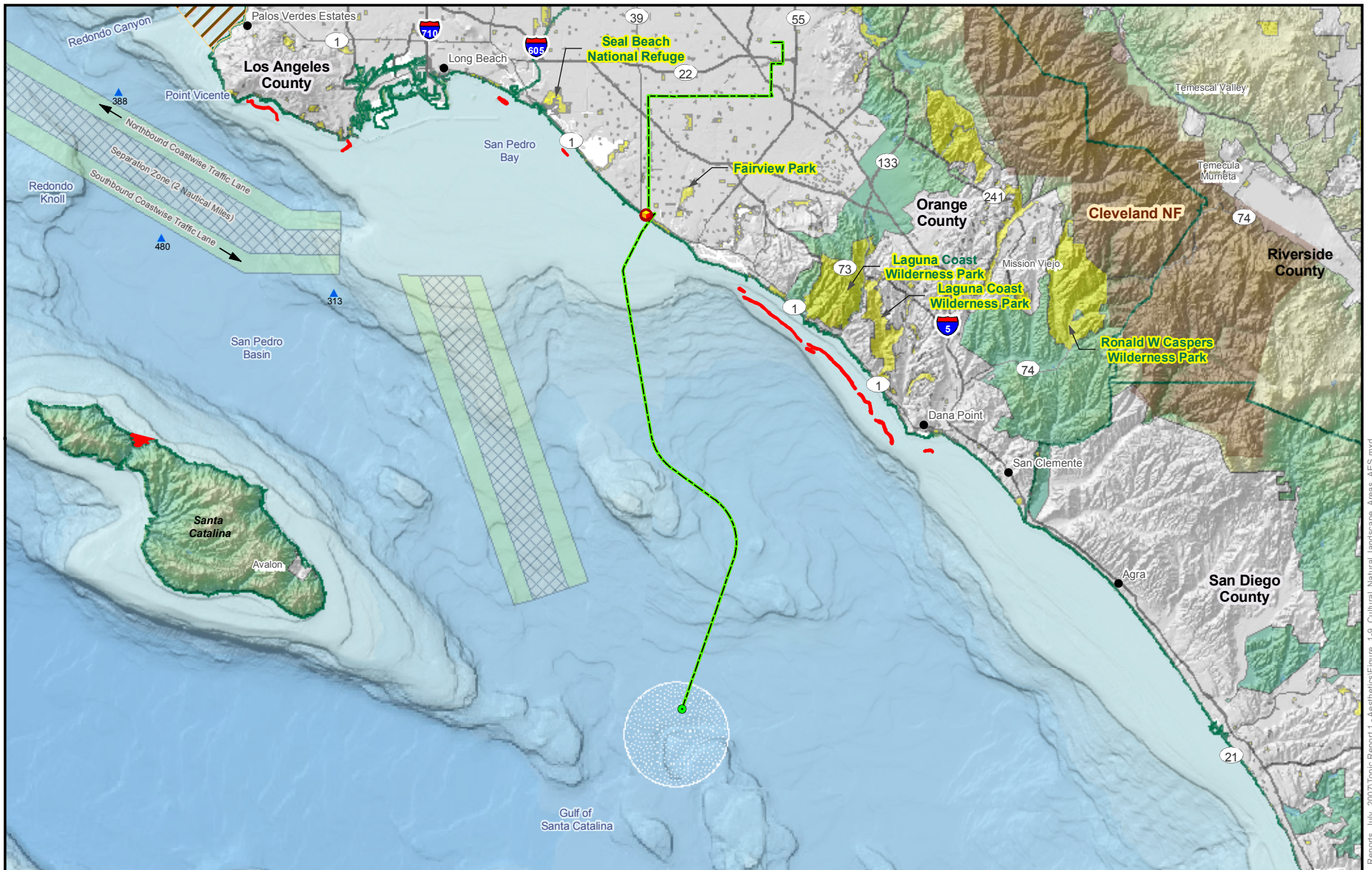


Figure 1-8
VIEW SIMULATION
LNG SHIP 21.8 MILES
WEST OF PALOS
VERDES ESTATES
OceanWay Secure Energy



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Legend

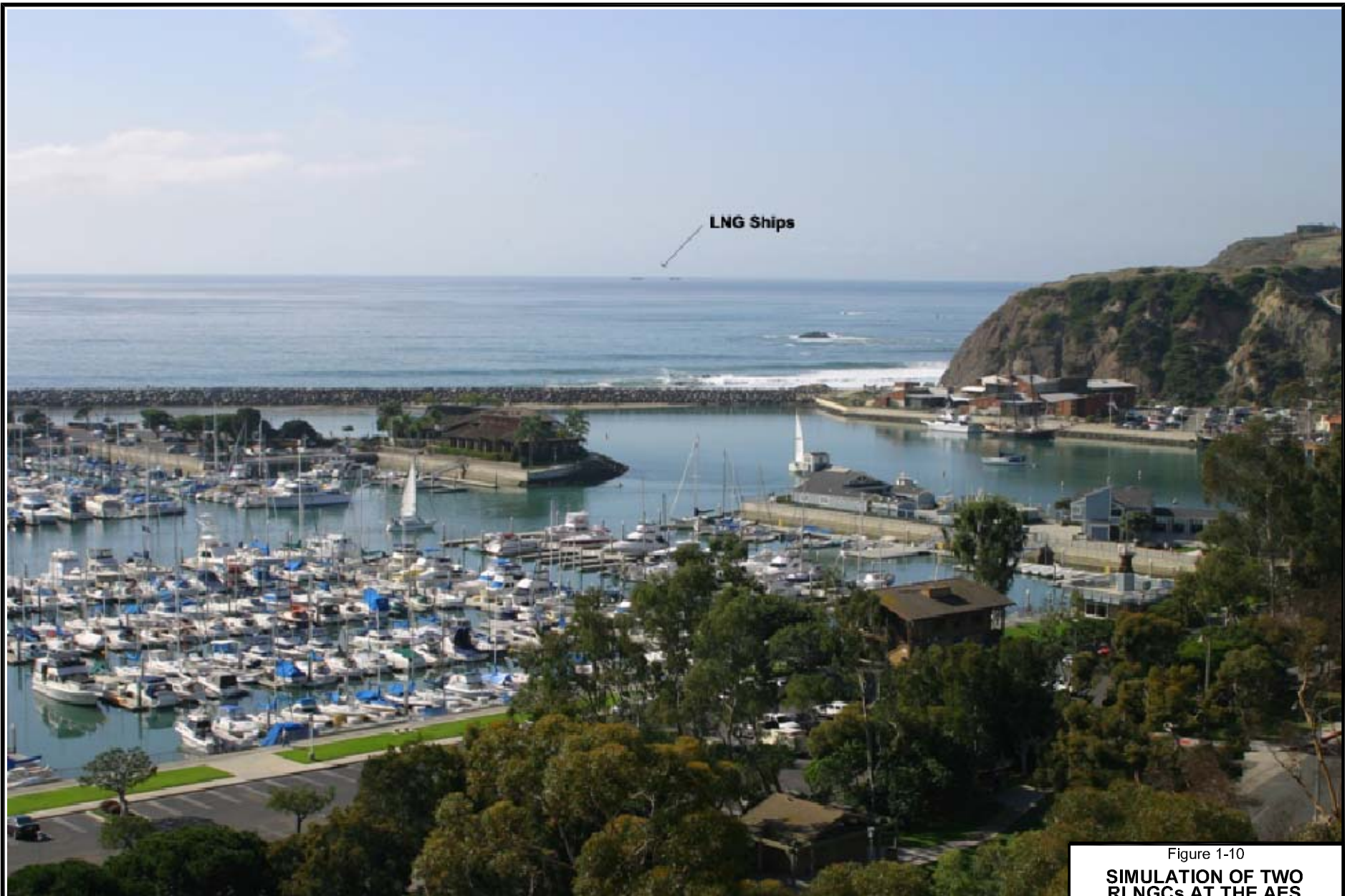
- AES Alternative Route (Onshore & Offshore)
- AES Landfall Point
- AES Mooring Buoy (Approximate)
- NOAA Soundings (Fathoms)
- Deep Water Port Location
- Urban Areas
- Major Roads
- National Parks
- Marine Protected Areas
- Parks, Conservation & Recreation Areas
- Santa Monica Bay Area Closure

Base Map: The Southern California Coastal Ocean Observing System, National Geophysical Data Center.

Figure: 1-9

0 2.5 5 10 15 20 25 Miles
0 5 10 20 30 40 Kilometers

Map of Locations of Cultural & Natural Landscapes for AES Alternative Route
OceanWay Secure Energy Project



LNG Ships

Figure 1-10
**SIMULATION OF TWO
RLNGCs AT THE AES
ALTERNATE DWP SITE**
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