7.0 Coastal Resource Protection

This Chapter sets forth the Land Use Plan policies for Dana Point Harbor related to the protection of coastal resources and in furtherance of the following Coastal Act policies:

Coastal Act §30230 provides:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Coastal Act §30231 provides:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries and lakes appropriate to maintain optimum populations of marine organisms and for protection of human health shall be maintained and where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats and minimizing alteration of natural streams.

Coastal Act §30233 provides, in part:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
(3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the

placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(4) Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(6) Restoration purposes.

(7) Nature study, aquaculture, or similar resource-dependent activities.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable long-shore current systems.

(c) In addition to the other provisions of this section, diking, filing, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary…..

(d) Erosion control and flood control facilities constructed on watercourses can impede the movement of sediment and nutrients that would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for these purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

Coastal Act §30240 provides:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values and only uses dependent on such resources shall be allowed within such areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Coastal Act §30210 provides:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of property owners and natural resources in the area from overuse.*

7.1 Biological Resources

Dana Point Harbor, constructed between 1966 and 1970 is located on the lee (protected side) of the Dana Point Headlands within Capistrano Bay. The Harbor is entirely manmade and is completely developed with urbanized uses and native and non-native/ornamental landscaping. The literature review and assessment of the various habitat types within the Harbor identified approximately sixty-nine sensitive wildlife species that could potentially occur in the vicinity of the Harbor or immediately adjacent off-site areas. Fifteen of these species are listed as Federal and/or State-listed endangered, threatened or proposed endangered or threatened species. Of the wildlife species noted, a total of 6 species were identified as present, Common loon *(Gavia immer)*, California brown pelican *(Pelecanus occidentalis californicus)*, Double-crested cormorant *(Phalacrocorax anritus)*, Snowy egret *(Egretta thula)*, Black-crowned night heron *(Nycticorax nycticorax)* and the California gull *(Larus californicus)*; Monarch butterfly *(Danaus plexippus)* and American white pelican *(Pelecanus erythrorhynchos)* have a high potential to occur; and an additional ten species, including Cooper's hawk *(Accipiter cooperii)*, Sharp-shinned hawk *(Accipiter striatus)*, Northern harrier *(Circus cyaneus)*, Osprey *(Pandion haliaetus)*, American peregrine falcon *(Falcon peregrinus anatum)*, Western snowy plover *(Charadrus alexandrinus nivosus)*, Black skimmer *(Rynchops niger)*, California least tern *(Sterna caspia)* Elegant tern (Sterna elegans) and Large-billed savannah sparrow *(Passerculus sandwichensis rostratus)* have a moderate potential to occur.

Section 30107.5 of the Coastal Act defines "Environmentally Sensitive Area" as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development." Section 30240 of the *Coastal Act* requires that Environmentally Sensitive Habitat Areas (ESHAs) be protected against any significant disruption of habitat values. Only uses dependent on those resources are allowed within ESHAs and adjacent development must be sited and designed to prevent impacts that would significantly degrade the ESHA and must be compatible with the continuance of the ESHA.

7.1.1 Dana Point Harbor Biological Resource – Policies

7.1.1-1 The Dana Point Harbor Revitalization Plan has a wide range of biological resources which may include Environmentally Sensitive Habitat Areas (ESHAs) including important plant communities, wildlife habitats, marine refuge areas and significant

tree stands, all of which shall be appropriately preserved and protected depending upon their designation. Development in areas adjacent to Environmentally Sensitive Habitat Areas shall be sited and designed to prevent impacts which would significantly degrade those areas through such methods as, the practice of creative site planning and vegetative buffers and shall be compatible with the continuance of those habitat areas. A definitive determination of the existence of Environmentally Sensitive Habitat Areas on a specific site shall be made through the Coastal Development Permit process. (Coastal Act Sections 30230, 30240)

7.1.1-2 Environmentally Sensitive Habitat Areas (ESHAs) shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (Coastal Act Section 30240)

7.1.1-3 Endangered species shall be protected within their existing habitat from harassment and molestation by among other measures, controlling access, by regulations and enforcement measures. Wherever feasible, the habitat of endangered species shall be enhanced consistent with the resource protection policies of the LCP and the Coastal Act.

7.1.2 Land Resources

Section 30001.5 of the California Coastal Act provides that the goals of the State for the coastal zone include:

(a) Protect, maintain and where feasible enhance and restore the overall quality of the Coastal Zone environment and its natural and artificial resources;
(b) Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state;
(c) Maximize public access to and along the coast and maximize public recreational opportunities in the Coastal Zone consistent with sound resources conservation principles and constitutionally protect rights of property owners;
(d) Assure priority for coastal-dependent and coastal-related development over other development on the coast; and
(e) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses in the Coastal Zone.

The existing Dana Point Harbor area is fully developed, being comprised of buildings of varying height, surface parking areas, meandering walkways, large open space grass areas

with picnicking facilities, native and non-native vegetation and landscaping and boat docks. More specifically, an overview of existing Harbor resources includes:

Harbor Landscape & Vegetation

All of the trees within Dana Point Harbor, including the native trees, were planted as landscape, ornamental trees. Of the approximately 525 eucalyptus (*Eucalyptus* sp.) trees, a non-native species, approximately 175 of the eucalyptus trees are large with good ecological or aesthetic value; the remaining trees are small or leggy, with little canopy cover. Approximately 40 native California sycamore (*Platanus racemosa*) trees are located east of Island Way in Planning Areas 1 through 3. The sycamore trees throughout the Harbor are typically large and healthy. Also located throughout the Harbor are approximately 25 pines (*Pinus* sp.) that are generally less than 20 feet in height. Additionally, there are Norfolk Island Pines (*Araucaria heterophylla*) located near the OC Sailing and Events Center. Other common trees included Coral trees (*Erythrina* sp.), Bay Fig (*Ficus macrophylla*), and various species of palm.

Most of the Harbor is covered with asphalt parking lots, commercial buildings and expansive lawn areas and scattered ornamental landscaping. The vegetation community subtypes in the developed areas is non-native, commercial and ornamental landscaping. Ornamental landscaping consists of planted and maintained trees, shrubs, flowers and turf grass. Very few native species can be observed in the Harbor, with the exception of the native plants installed in the native plant garden at the Ocean Institute in Planning Area 6 and the coastal bluff scrub in Planning Area 7.

Within the Harbor, southern coastal bluff scrub occurs along the northern side of Dana Point Harbor Drive, along the bluffs in Planning Area 7. This area is not easily accessible to the public. The vegetation on the bluffs consists of coastal scrub species, including California sagebrush, coyote brush, California bush sunflower and dudleya. Sensitive plant species that have a potential to occur in this plant community, include aphanisma, Coulter's saltbush, south coast saltscale, Blochman's dudleya and cliff spurge. Implementation of the Dana Point Harbor Revitalization Plan designates Planning Area 7 for Conservation land uses and therefore precludes any new development other than that required to maintain existing surface drainage facilities. The nearest anticipated construction to the bluff areas includes possible realignment of Dana Point Harbor Drive, the OC Sailing and Events Center expansion and replacement of the existing Marina Inn that are also contemplated. Construction in these areas would not encroach into the native habitat in Planning Area 7 and therefore would not impact potentially sensitive species.

The policies contained in Coastal Act Chapter 3, Article 5 are intended to protect Environmentally Sensitive Habitat Areas against any significant disruption of habitat values and require that only uses dependent on those resources shall be allowed within those areas. The policies place priority on maintaining productive coastal agricultural land and

require that development in areas adjacent to Environmentally Sensitive Habitat Areas and parks and recreation areas be sited and designed to prevent impacts that would significantly degrade those areas.

The Dana Point Harbor Revitalization Plan would allow enhancements to the existing parkland throughout the Harbor by allowing upgraded landscaping, maintaining active and passive recreation uses and upgrading public service facilities such as restrooms. Additionally, the Revitalization Plan would allow an approximately 4-acre Conservation land use area (Planning Area 7) to preserve the natural bluffs that are a significant regional natural coastal resource and establishes regulatory mechanisms for the ongoing preservation of the coastal bluff face areas. Further, areas that include sensitive species of habitat would be protected by allowing the creation of landscape buffer areas to minimize construction and land use related impacts on the native coastal bluff scrub habitat. All landscaping in areas adjacent to the Conservation land use area (Planning Area 7) (including any required temporary erosion control) will be maintained by the County of Orange. Native plants used for landscaping shall be provided from seeds and vegetative sources in and around the bluffs. No plant species listed as problematic and/or invasive by the California Native Plant Society, California Exotic Pest Plant Council or as may be identified from time to time by the State of California shall be utilized in the Harbor. No plant species listed as a 'noxious weed' by the State of California or the U.S. Federal Government shall be utilized. Furthermore, any plants should be drought tolerant to minimize the use of water. The term drought tolerant is equivalent to the terms 'low water use' and 'ultra low water use' as defined and used by "A Guide to Estimating Irrigation Water Needs of Landscape Plantings in California" prepared by University of California Cooperative Extension and the California Department of Water Resources dated August 2000 available at http://www.owue.water.ca.gov/landscape/pubs/pubs.cfm.

Implementation of the Dana Point Harbor Revitalization Plan would include the removal of some native and non-native trees as part of construction activities. However, nesting and foraging habitat protection policies and tree maintenance and procedures have been incorporated into the Revitalization Plan that would preclude the removal or relocation of any tree that has been used within the past five years for nesting or breeding by wading birds (herons or egrets), California bird species of special concern or those protected by the Migratory Bird Treaty Act, unless the tree must be removed due to public health and safety reasons. Only under these circumstances may such trees be removed. When trees are removed, mitigation must be provided. The Plan also requires that trees used by the above bird species within the last five years be trimmed in a manner that protects current nesting or breeding activity and the integrity of the tree for future nesting and breeding. The details of the tree trimming/tree removal plan will be developed, and subject to Commission review and approval, through the Implementation Plan process. With these policies, including the replacement of native trees into newly developed or other landscaped areas, the effects of selective tree removal on bird species that include the black-crowned night herons, snowy egrets and different species of raptors that forage in and around the Harbor will be

minimized. Additionally, other practices such as noise avoidance will be implemented throughout the construction process to reduce impacts on bird species.

The Dana Point Harbor Revitalization Plan requires compliance with the South Coast Air Quality Management District Rule 403 to ensure the implementation of soil erosion techniques during construction activities and implementation of all feasible BMPs in order to reduce erosion. Additionally, requirements for the preparation and approval of erosion control plans prior to the commencement of any grading operations that specifies practices to prevent off-site siltation, construct or upgrade drainage facilities and minimize slope erosion will be implemented in conformance with Part II – Chapter 3, *General Regulations and Special Provisions*.

The Revitalization Plan also would allow a minor amount of improvements to areas adjacent to Doheny State Park and the Old Cove Marine Preserve. Existing landscaping along the edge of the boundary between Doheny State Beach and the Marine Services area would be allowed to be enhanced to further reduce visual impacts associated with the allowed improvements to the Marine Services Commercial land use area (Planning Area 1). Access to the Old Cove Marine Preserve will remain confined to two locations from the Ocean Institute and include interpretive signage that would be installed to protect sensitive species and their habitat. The Old Cove Marine Preserve itself will not be affected by any of the improvements proposed as part of the Dana Point Harbor Revitalization Plan.

Through the creation of regulations restricting the development of improvements in the bluff area, the Dana Point Harbor Revitalization Plan and District Regulations ensure that the existing pockets of isolated habitat will be protected from human disturbance to the maximum extent possible. All of the trees, shrubs, flowers and turf grass located throughout Dana Point Harbor, including the native trees were planted as part of the original landscaping.

Dana Point Harbor Land Resource – Policy

7.1.2-1 Manage public access to the shore of the marine life refuge to avoid detrimental impacts to the resources of the refuge. (Coastal Act Section 30230)

Conservation (C)

Bluffs

The Dana Point Harbor Revitalization Plan preserves the coastal bluff area as an important coastal resource. In addition to its visual significance, the bluff area includes a small amount of coastal sage scrub, which is a sensitive plant species that provides habitat for other sensitive plant and animal species. Only limited maintenance-related improvements to surface drainage facilities are contemplated.

Through the creation of regulations restricting the development of improvements in the bluff area, the Dana Point Harbor Revitalization Plan and District Regulations ensures that the existing pockets of isolated habitat will be protected from human disturbance to the maximum extent possible. The majority of trees, shrubs, flowers and turf grass presently located throughout Dana Point Harbor, including the native trees located in areas outside the area of the bluffs were planted as part of the original Harbor landscaping program.

Nesting and Foraging Habitat

Nesting and Foraging Habitat – Policies

7.1.2-2 While evaluations of the trees located throughout Dana Point Harbor do not rise to the level of ESHA, they do provide important habitat which should be protected. The purpose of these tree trimming policies is to ensure the long-term protection of bird breeding, nesting and roosting habitat for bird species listed pursuant to the Federal or California Endangered Species Acts, California bird species of special concern, and wading birds (herons or egrets) as well as owls and raptors which have an especially valuable role in the overall coastal ecosystem.

Ensure the protection of bird nesting habitat protected by the Migratory Bird Treaty Act and the long-term protection of breeding, roosting, and nesting habitat of bird species listed pursuant to the federal or California Endangered Species Acts, California bird species of special concern, and wading birds (herons or egrets) as well as owls or raptors. The trimming and/or removal of any trees that have been used for breeding and nesting by the above identified species within the past five (5) years, as determined by a qualified biologist or ornithologist shall be undertaken in compliance with all applicable codes and regulations of the California Department of Fish and Game, the U.S. Fish and Wildlife Service and the U.S. Migratory Bird Treaty Act, and shall be conducted under the parameters described in the Dana Point Harbor Tree Maintenance Procedures as approved by the Coastal Commission as a part of the Implementation Plan.

7.1.2-3 OC Dana Point Harbor shall prepare Tree Maintenance Procedures for the trimming and/or removal of trees consistent with Policy 7.1.2-2 above. The procedures shall include, but not be limited to, the following provisions:

- Tree trimming, or tree removal when necessary, shall be conducted only during the non-breeding and non-nesting season (October through December) of the identified bird species unless the County of Orange in consultation with a qualified arborist and with review and comment from the Audubon Society determines that a tree causes danger to public health and safety. A health and safety danger shall be considered to exist

if a qualified arborist determines that a tree or branch is dead, diseased, dying or injured and said tree or branch is in imminent danger of collapse or breaking away. The County shall be proactive in identifying and addressing diseased, dying or injured trees as soon as possible in order to avoid habitat disturbances during the nesting season.

- Trees or branches with a nest of a state or federal listed species, a California bird species of special concern, or a wading bird (heron or egret) as well as owls or raptors that has been active anytime within the last five years shall not be removed or disturbed unless a health and safety danger exists.

- The removal of any tree shall require mitigation at a 1:1 ratio. A tree replacement planting plan for each tree replacement shall be developed to specify replacement tree location, tree type, tree size (no less than 36 inch box size), planting specifications, and a five-year monitoring program with specific performance standards.

7.1.2-4 If an active nest of any bird species listed pursuant to the federal or California Endangered Species Act, California bird species of special concern, or a wading bird (herons or egrets) as well as owls or raptors is found, construction activities within 300 feet (500 feet from any identified raptor nest) shall not exceed noise levels of 65 dB peak until the nest(s) is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Surveys for the above bird species during their breeding season shall be conducted by a qualified biologist prior to commencement of construction.

7.2 Marine Resources

Coastal Act §30230 provides:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Coastal Act §30231 provides:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries and lakes appropriate to maintain optimum

populations of marine organisms and for protection of human health shall be maintained and where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats and minimizing alteration of natural streams.

Marine Habitats

The original construction of Dana Point Harbor has significantly changed the type of habitat available for marine organisms along this portion of the California coastline. These modifications have created artificial habitats, which support a wide diversity of biological communities. Because of dredging and filling, very little sandy-beach and shallow-water habitats remain. Benthic (at the bottom of a body of water) habitat has also been altered. However, the deep-water habitat for fish has expanded because of the emplacement of bulkheads, riprap for shoreline breakwaters and pier pilings. The riprap provides refuge and foraging habitat for fish and birds and the protected, open waters of the Harbor maintain a diverse fish community that in turn provides food for several species of birds.

The Marine Resource policies of the Coastal Act are intended to protect the marine environment and recognize the economic, commercial and recreational importance of fishing activities and the facilities that provide them. To this end, the policies require that uses of coastal waters, streams, wetlands, estuaries and lakes be carried out in a manner that will restore and sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific and educational purposes. The policies require protection against the spillage of crude oil, gas, petroleum products or hazardous substances in relation to any development or transportation of such materials. The policies require implementation of strict environmental protection practices during any necessary diking, filling or dredging of open coastal waters, wetlands, estuaries and lakes to reduce any significant disruption of habitats and water circulation. The policies also require that standards for maintaining the quality of water through the implementation of erosion control and flood control facilities are achieved.

7.2.1 Dana Point Harbor Marine Habitat – Policies

7.2.1-1 Marine resources shall be maintained, enhanced and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Use of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-

term commercial, recreational, scientific and educational purposes. (Coastal Act Section 30230)

7.2.1-2 Coastal water areas suited for water-oriented recreation activities shall be protected for such uses. (Coastal Act Section 30220)

7.2.1-3 Shoreline or ocean protective devices such as revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls and other such construction that alters shoreline processes shall only be permitted when required to serve coastal-dependent uses or to protect existing structures or adverse impacts on local shoreline sand supply and minimize adverse impacts on public use Baby Beach. (Coastal Act Section 30210-12, 30235)

7.2.1-4 Preserve, maintain, enhance and where feasible restore marine resource areas and coastal waters. Special protection shall be given to areas and species of special biological or economic significance. Restore general water quality and biological productivity as necessary to maintain optimum populations of marine organisms and for the protection of human health. (Coastal Act Section 30230)

7.2.1-5 Maintain and where feasible, restore the biological productivity and the quality of coastal waters, creeks and groundwater, appropriate to maintain optimum populations of marine organisms and to protect human health. Measures including, but not limited to minimizing the adverse effects of waste water discharges, controlling runoff, preventing the depletion of ground water supplies, preventing substantial interference with surface water flow, maintaining vegetation buffer areas protecting riparian habitats, minimizing alteration of natural streams and street sweeping, shall be implemented to accomplish the objectives of this policy. (Coastal Act Section 30231)

7.2.1-6 The biological productivity and quality of coastal waters, streams, wetlands, estuaries and lakes and the restoration of optimum populations of marine organisms shall be ensured by, among other means, minimizing adverse effects of waste water discharges. Any specific plans and/or planned development district policies and specific development proposals, site plans and subdivision maps shall control runoff, prevent depletion of ground water supplies and substantial interference with surface water flow, encourage waste water reclamation, maintain natural vegetation buffer areas that protect riparian habitats and minimize alteration of natural streams. (Coastal Act Section 30231)

7.2.1-7 Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems. (Coastal Act Section 30233)

7.2.1-8 The diking, filling or dredging of open coastal waters, wetlands, estuaries and lakes shall only be permitted in accordance with Section 30233 of the Coastal Act. (Coastal Act Section 30233)

7.2.1-9 Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific and educational purposes. (Coastal Act Section 30230)

7.2.1-10 Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

7.2.1-11 The non-motorized craft launching area and picnic and park area within Baby Beach shall remain, but the configuration may be modified to accommodate mitigation for water quality-related improvements.

7.2.1-12 Construction phasing for the reconstruction and reconfiguration of the marina docks shall minimize the loss or disruption of the existing docks to the extent feasible and may involve the use of temporary floating, staging and/or imported prefabricated docks to minimize construction time.

7.2.1-13 Renovations to the Marina channels shall emphasize improved access to the water and circulation of boat traffic in the Harbor.

7.2.1-14 To improve boat/vessel circulation in the Harbor, the Revitalization Plan includes modernization of the docks in the Marine Services Commercial area and the sport fishing boat docks.

7.2.1-15 Future waterside improvements to the east and west of the breakwaters (Planning Areas 8, 11 & 12) shall be reconstructed within the seaward footprint of the existing structures except as necessary to provide for public safety or public access. Construction activities taking place below the mean higher high water (MHHW) mark shall prepare a focused marine biological survey to determine if sensitive species are present.

7.2.1-16 OC Dana Point Harbor shall require that standard BMP's be utilized in order to ensure impacts to water quality or the marine environment are minimized and include:

- Erosion to be controlled by landscaping (leave existing vegetation in place where possible), paving and drainage structures;
- Perimeter barriers, such as berms or sand bags around all construction sites to catch run-off;

- Tracking controls, such as rumble strips and gravel strips will be used to minimize dirt being tracked into and out of the project site;
- Harbor basin inlets shall be protected by placing sediment barriers, such as a wire mesh and gravel filter to intercept debris and soil runoff; and
- Appropriate housekeeping activities to minimize the potential for pollutants from material storage or construction activities.

7.2.1-17 Reduce underwater noise impacts to marine mammals and fish from construction to the maximum extent feasible.

Sensitive Marine Species

Several species of marine mammals frequent the nearshore waters along the Dana Point coastline. All marine mammals are protected by the federal Marine Mammal Protection Act. Several whales are federally listed endangered species. The marine mammals that have the greatest potential to occur locally are the California sea lion *(Zalophus californicus)*, harbor seal *(Phoca vitulina)*, California gray whale *(Eschrichthius robustus)*, killer whale (Orcinus orca), common dolphin *(Delphinus delphis)*, bottlenose dolphin *(Tursiops truncates)*, Pacific white sided dolphin *(Lagenorhynchus obliquidens)* and Dall's porpoise *(Phocenoides dalli)*.
Subtidal reefs are considered Essential Fish Habitat for groundfish species. Kelp forests associated with reefs provide protection and cover for many marine invertebrates and fishes. Kelp *(Macrocystis pyrifera)* grows on the rock and cobble habitat offshore of the Harbor at depths between 20 and 45-feet. The California Department of Fish and Game (CDFG) Kelp Bed No. 9 extends between Emerald Bay and Dana Point Harbor. Although giant kelp beds do not have official status as a sensitive habitat or resource, kelp does grow on the western breakwater of Dana Point Harbor. Inside the Harbor, giant kelp is very sparse, with individual kelp plants in extremely low density and in poor condition with no observable canopy.

Invasive Marine Species

Caulerpa taxifolia has a potential to cause ecosystem-level impacts on California's bays and nearshore systems due to its extreme ability to out-compete other algae and seagrasses. *Caulerpa taxifolia* grows as a dense smothering blanket, covering and killing all active aquatic vegetation in its path when introduced in a non-native marine habitat. Fish, invertebrates, marine mammals and sea birds that are dependent on native marine vegetation are displaced or die off from the areas where they once thrived. This species has a characteristic bright green color, with flat, leafy fern-like fronds. It is a tropical-subtropical species that is commonly used in aquariums and was likely introduced into Southern California coastal waters in 2000 by way of individuals dumping their aquaria waters into storm drains or directly into lagoons. *Caulerpa* has not been observed within the bottom habitat, dock piles and floats of Dana Point Harbor.

7.3 Water Quality

Dana Point Harbor is located in the City of Dana Point that is within the Dana Point hydrologic sub-area of the San Juan hydrologic unit, which is within the San Diego Basin. More specifically, the Harbor lies within the Dana Point Coastal Streams Watershed, which drains to the Pacific Ocean. The main tributary is Salt Creek, which ultimately drains into the Pacific Ocean. The 6-square-mile watershed is almost fully developed and includes portions of the cities of Dana Point, Laguna Beach, Laguna Niguel and San Juan Capistrano. Remaining undeveloped areas include open space within the Aliso and Wood Canyons Regional Park in the upper watershed and the Salt Creek Corridor Regional Park in the eastern part of the watershed. Also included in the watershed are a number of coastal drains that discharge to the Pacific Ocean through Dana Point Harbor. A few small, unnamed drainages and larger tributaries (Arroyo Salado Creek and San Juan Canyon Creek) join Salt Creek as it makes its way through the watershed.

Adjacent land uses are the Dana Point Headlands, restaurant and residential uses immediately north of the Harbor on the bluffs, which use off-site drainage mitigation techniques and terrace drains, respectively. The Harbor is located east of the Old Cove Marine Preserve and west of Doheny State Beach. These areas serve as habitat for several marine species of flora and fauna that are under special protection for their biological resource significance.

Facilities that collect drainage from existing off-site commercial and residential development, as well as portions of the Street of the Golden Lantern, Cove Road, Santa Clara Avenue, Street of the Blue Lantern, Dana Point Harbor Drive and Scenic Drive are conveyed to the Pacific Ocean via a series of various sized storm drains. Most of the runoff from the off-site areas above the Harbor is collected within the existing storm drain system in the Street of the Golden Lantern and Cove Road. Off-site surface water is conveyed by a series of existing V-ditches that are located at the back of (north of) the Harbor parking lots, at the base of the bluffs. Between there and the outlet location, the pipe accepts runoff from various inlets located in the Harbor parking lots and Dana Point Harbor Drive. A minor portion of the sheet flow runoff origination from Dana Point Harbor Drive enters the Harbor from Casitas Place, Street of the Golden Lantern and Embarcadero Place is collected within the street curb and gutters and is conveyed into the regional (County) storm drain facilities that traverse underneath the Harbor facilities.

Within Dana Point Harbor, most of the on-site runoff from the parking lots and facilities enters a series of drain inlets and catch basins prior to discharging into the ocean via the Harbor. Some of these systems tie into the County of Orange storm drains running underneath the Harbor, while others discharge directly into the Harbor Marinas through smaller pipe outfalls. Rooftop drainage from the existing buildings is typically collected by a series of 4 to 6-inch pipes and confluence into a larger pipe for discharge.

Dana Point Harbor Revitalization Plan contemplates the repair and renovation of the existing quay wall slope panels by filling voids and gaps, replacing panels where required and by placing a tie-back system of anchor rods where necessary to provide for the improved longevity of recreational uses and address any existing seismic safety concerns.

In compliance with Coastal Act Policies to improve water quality, the Dana Point Harbor Revitalization Plan would enhance the biological productivity of the coastal waters through the upgrading of utility systems and treatment of runoff. Enhancements to the water quality within Dana Point Harbor would be implemented through the incorporation of state-of-the-art Best Management Practices (BMPs). Additionally, as part of the on-going Clean Beaches Initiative, diversions are contemplated for the drainages adjacent to the Baby Beach area. All dry-weather runoff or low-flow runoff that previously sheet flowed or drained into the storm drain system and directly from the Harbor would be treated by a series of pre-treatment and treatment BMPs. The implementation of a full range of BMPs including non-structural and on-site structural BMPs would be proposed with the anticipated revitalization of the Commercial Core area and would reduce the total amount of pollutants in the storm water runoff.

Numerous BMPs have been incorporated into the Dana Point Harbor Revitalization Plan in order to reduce pollutant loading into the Harbor and includes the maintenance of storm drain stenciling and signage for new storm drain construction in order to discourage dumping of waste and other materials into the drains. Other features include the requirement for preparation of a comprehensive Water Quality Management Plan (with progressive amendments as new revitalization projects throughout the Harbor are identified) and Storm Water Pollution Prevention Plans in compliance with National Pollution Discharge Elimination System permits.

Water quality and conservation would also be addressed by diverting low-flow "nuisance" runoff to the sanitary sewer system for treatment where feasible, thereby avoiding dry weather flows being introduced into beach areas or the Harbor in general. The Dana Point Harbor Revitalization Plan also would propose to continue to expand a public awareness program focused on maintaining water quality standards by limiting the use of fertilizers and pesticides and performing routine maintenance of grease interceptors for restaurants and storm water treatment technologies.

7.3.1 Water Quality Landside Area – Policies

7.3.1-1 Protection against the spillage of crude oil, gas, petroleum products or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur. (Coastal Act Section 30232)

7.3.1-2 Promote pollution prevention and elimination methods that minimize the introduction of pollutants into coastal waters and the generation of polluted runoff and nuisance flows.

7.3.1-3 Development shall not result in the degradation of the water quality of coastal surface waters including the ocean, coastal streams, or wetlands and of groundwater basins. To the maximum extent feasible, ensure that pollution from urban runoff not be discharged or deposited such that it adversely impacts groundwater, the ocean, coastal streams or wetlands.

7.3.1-4 Development shall be designed to minimize to the maximum extent feasible, the introduction of pollutants that may result in significant impacts to surface waters, groundwater, or coastal waters. In order to meet these requirements, applicants shall prepare a post-development phase drainage and pollutant runoff control plan that incorporates a Best Management Practice (BMP) or the combination of BMP's best suited to reduce pollutant loading to the maximum extent feasible. BMP's may include site design, source control and treatment control BMP's.

7.3.1-5 Promote infiltration of runoff, including storm water and nuisance flow runoff, to protect the natural hydrologic cycle. Incorporate site drainage and landscape designs that minimize increases in peak runoff by promoting infiltration, filtration and attenuation over landscaped areas or through permeable surfaces. Where possible, include infiltration BMP's (e.g., permeable pavements, dry wells, etc.) and apply techniques consistently over drainage areas. Where infiltration of runoff would exacerbate geologic hazards, include equivalent BMP's that do not require infiltration.

7.3.1-6 New development shall minimize where feasible the development footprint and directly connected impervious surfaces, as well as the creation of and increases in impervious surfaces.

7.3.1-7 New development shall protect the absorption, purification and retention functions of natural systems that exist on the site. Where feasible, drainage plans shall be designed to complement and utilize existing drainage patterns and systems, conveying drainage from the developed areas of the site in a non-erosive manner. Disturbed or degraded natural drainage systems should be restored, where feasible.

7.3.1-8 New development shall be sited and designed on the most suitable portion of the site while ensuring protection and preservation of natural and sensitive site resources by providing for the following:

- Protecting areas that provide important water quality benefits, areas necessary to maintain riparian and aquatic biota and/or that are susceptible to erosion and sediment loss;
- Analyzing the natural resources and hazardous constraints of Planning Areas and individual development sites to determine locations most suitable for development;
- Promoting clustering of development on the most suitable portions of a site taking into account geologic constraints, sensitive resources and natural drainage features;
- Preserving and protecting riparian corridors, wetlands and buffer zones;
- Minimizing disturbance of natural areas, including significant trees, native vegetation and root structures;
- Using natural drainage as a design element, maximizing the preservation of natural contours and native vegetation; and
- Limiting land disturbance activities such as clearing and grading, limiting cut-and-fill to reduce erosion and sediment loss and avoiding steep slopes, unstable areas and erosive soils.

7.3.1-9 Management practices that enhance infiltration and help maintain the natural hydrologic cycle will be preferred except where site conditions make the use of enhanced infiltration unsafe. In these instances other management practices that provide similar water quality protection shall be used.

7.3.1-10 Commercial development shall incorporate BMP's designed to minimize or avoid the runoff of pollutants from structures, landscaping, parking and loading areas.

7.3.1-11 Gasoline and marine repair facilities shall incorporate BMP's designed to minimize runoff of oil and grease, solvents, car battery acid, coolant, gasoline and other pollutants to storm water system.

7.3.1-12 Storm drain stenciling and signage shall be provided for new storm drain construction in order to discourage dumping into drains.

7.3.1-13 Permits for new development shall be conditioned to require on-going maintenance where maintenance is necessary for effective operation of required BMP's.

7.3.1-14 New development shall include construction phase erosion control and polluted runoff control plans. For example, such plans may include controls on timing of grading, BMP's for storage and disposal of construction materials, or design specifications of sedimentation basins.

7.3.1-15 New development that requires a grading/erosion control plan shall include landscaping and re-vegetation of graded or disturbed areas.

7.3.1-16 The use of efficient irrigation practices and native or non-invasive and drought-tolerant plants to minimize the need for fertilizer, pesticides, herbicides and excessive irrigation practices shall be required for all areas. The use of rodenticides containing any anticoagulant compounds (including, but not limited to, Warfarin, Brodifacoum, Bromadiolone or Diphacinone) is prohibited.

7.3.1-17 All structural BMPs shall be inspected on an annual basis and cleaned and/or repaired as necessary, ensuring proper function in accordance with the Model Maintenance Procedures of the County's Local Implementation Plan (LIP).

7.3.1-18 The use of water conservation irrigation systems and practices, such as weather based or sensor controlled, shall be required throughout the Harbor.

7.3.2 Water Quality Waterside Area – Policies

7.3.2-1 Boat maintenance and operation practices to be encouraged by OC Dana Point Harbor include:

a) Continue to provide restrooms with showers and laundry facilities in close proximity to the marinas thereby reducing the need for boaters to utilize on-board facilities;
b) Limit the number of live-aboard permits in the Harbor to not exceed more than ten percent (10%) of the total vessels on any one dock and no more than three percent (3%) of the total allowed in the Harbor overall;
c) Require live-aboard permitees to have their vessel thoroughly inspected by the U.S. Coast Guard Auxiliary on an annual basis to ensure the vessel has proper safety equipment aboard, waste holding tanks are in good operating condition with locking overboard diversion valves secured in the closed (inboard) position;
d) Continue enforcement prohibiting all waste disposal discharges in the Harbor;
e) Continue to provide pump-out stations to facilitate proper disposal of waste from vessels;
f) Ensure an adequate supply of primary clean-up and containment materials including oil absorbent pads and oil absorbent booms are conveniently located and easily accessible in the event of a spill;
g) Continue to prohibit the rebuilding of vessels, hull painting and other major repairs while a boat is moored in the Harbor;

h) Continue enforcement of regulations restricting maintenance practices that involves sanding, painting and use of chemicals on a boat moored in the Harbor;
i) Continue to prohibit the dumping of fish waste into Harbor waters;
j) Continue to prohibit the cleaning of fish on Harbor docks;
k) Continue to require passing vessel entry inspections (USCGA Vessel Safety Inspection) for all new slip tenants to ensure all vessels appear to be sound and functional and are in compliance with Dana Point Harbor environmental and safety regulations (passing said inspection does not necessarily deem the vessel adequate for open ocean transit. Such determination remains the sole responsibility of the vessel operator); and
l) Continue to require the use of only biodegradable soaps, cleaners and teak cleaners approved for ocean waters.

7.3.2-2 Encourage the use of less polluting, cleaner running engines in all motorized watercraft (e.g. jet skis, motor boats, etc.).

7.3.2-3 The preferred material for pilings used for construction of piers, docks, or slips is concrete or steel coated with a non-toxic material. Pilings treated with Ammoniacal Copper Arsenate (ACA), Ammoniacal Zinc Arsenate (ACZA) or Chromated Copper Arsenate (CCA) wrapped or coated prior to installation with a water tight plastic sleeve or similar sealant can also be used, but are not preferred over concrete piles or steel piles coated with a non-toxic material. Timber piles preserved with creosote (or similar petroleum-derived products) are not allowed. To prevent the introduction of toxins and debris into the marine environment, the use of plastic wrapped pilings (e.g., PVC Pilewrap) and reinforced plastic for pilings (e.g., high density polyethylene (HDPE) pile armor) shall conform to the following requirements:

a) The material used shall be durable and a minimum of one-tenth of an inch thick;
b) All joints shall be sealed to prevent leakage;
c) Measures shall be taken to prevent ACA, CCA and/or ACZA from dripping over the top of plastic wrapping into Harbor waters. These measures may include wrapping pilings to the top or installing collars to prevent dripping;
d) The plastic sleeves shall extend a minimum of eighteen (18) inches below the mud line;
e) Plastics used to protect concrete or timber piers and docks or for flotation shall be subject to regular inspection to prevent sloughing of plastics into the waterway. A comprehensive inspection and maintenance plan shall be a requirement of any approval for projects involving plastic or similar material wrapped piles;

f) The marina operator shall be made responsible for removal and disposal of failed docks or materials; and
g) If federal or state regulatory agencies, through new or better scientific information, determine that less environmentally damaging materials or methods are available for new piles or piling replacement, the least environmentally damaging materials and/or methods should be required for such projects, as feasible.

7.3.3 Eelgrass Protection

Eelgrass *(Zostera Marina)* is a marine-flowering plant that grows in soft sediments in coastal bays and estuaries and occasionally offshore to depths of 50-feet. Eelgrass canopy (consisting of shoots and leaves) enhances the abundance and the diversity of otherwise barren sediments. Many species of invertebrates (i.e., clams, crabs and worms) live either on eelgrass or within the soft sediments that cover the root and rhizome mass system. Eelgrass is a nursery habitat for many juvenile fishes, including species of commercial and/or sports fish value (California halibut and barred sand bass). They are also foraging centers for seabirds such as the endangered California least tern that seek out juvenile topsmelt that are attracted to the eelgrass cover. Eelgrass is also an important contributor to the detrital (decaying organic) food web of bays as the decaying plant material is consumed by many benthic invertebrates (e.g., polychaete worms) and reduced to primary nutrients by bacteria. Review of historic files and recent surveys indicate that the only time eelgrass was observed in the Harbor was a single, three-turion plant at the eastern end of Baby Beach in April 2005.

7.3.3 Eelgrass Protection and Restoration – Policies

7.3.3-1 Prior to the potential disturbance to shallow water marine substrate, OC Dana Point Harbor will insure that a pre-construction survey will be conducted to determine the presence of Eelgrass (Zostera marina) to be taken during the active growth period if possible. If Eelgrass is determined to be present within the project area, when feasible, the project shall be redesigned to avoid impacts to Eelgrass. If nearby Eelgrass is impacted, it shall be mitigated in conformance with the Control Protocol adopted by the National Marine Fisheries Service.

7.3.3-2 Avoid impacts to eelgrass (*Zostera marina*) to the greatest extent possible. Mitigate losses of eelgrass at a 1.2 to 1 mitigation ratio and in accordance with the *Southern California Eelgrass Mitigation Policy*.

7.4 Wetlands

The Coastal Act distinguishes wetlands from other types of water areas, such as estuaries and open coastal waters. Section 30121 of the Coastal Act defines "wetlands" as "lands within the coastal zone which may be covered periodically or permanently with shallow

water and includes saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats and fens."

7.4.1 Wetlands – Policies

7.4.1-1 Recognize and protect wetlands for their recreational, water quality and habitat value.

7.4.1-2 Protect, maintain and, where feasible, restore the biological productivity and the quality of coastal waters, streams, wetlands, estuaries and lakes.

7.4.2 Wetland Definition and Delineation

As stated, Section 30121 of the Coastal Act defines "wetlands" as "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens." However, a more specific definition is provided in Section 13577 (b-1) of Title 14 of the California Code of Regulations:

> "*...land where the water table is at near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentration of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some during each year and their location within, or adjacent to vegetated wetland or deepwater habitats.*"

The boundary line between wetland and adjacent upland area is determined by the extent of one or more key wetland characteristics: hydrology (frequency, duration, and timing of inundation or saturation), hydric soils (soil with characteristics resulting from prolonged saturation), and hydrophytic vegetation (plants adapted to life in water, or in periodically flooded and/or saturated anaerobic soils). Positive wetland indicators of all three characteristics are normally present in wetlands. However, the presence of only one of these characteristics (e.g., hydrology, hydric soils, or hydrophytic vegetation) is needed for an area to qualify as a wetland, pursuant to the California Code of Regulations.

<u>Wetland Definition and Delineation – Policies</u>

7.4.2-1 A "wetland" is defined as: a land which may be covered periodically or permanently with shallow water and includes saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats and fens.

7.4.2-2 Require a survey and analysis with the delineation of all wetland areas when an initial site survey indicates the presence or potential for wetland species or indicators. Wetland delineations will be conducted in accordance with the definitions of wetland boundaries contained in Section 13577(b) of Title 14 of the California Code of Regulations.

7.4.2-3 Require buffer areas around wetlands of a sufficient size to ensure the biological integrity and preservation of the wetland that they are designated to protect.

7.5 Dredging, Diking and Filing

Originally, the Harbor was an open coast, mixed sand and rocky beach located between the Dana Point Headlands and San Juan Creek. The area provided favorable habitat for fish and invertebrates and the sand beach served as roosting and nesting habitat to shorebirds. In 1971, a breakwater was constructed and the Harbor was dredged to achieve a relatively uniform subsurface terrain and thereby changing the type of habitat available for marine organisms. These modifications have largely created artificial habitats that support a wide diversity of biological communities, principally deep-water habitat for fish due to the emplacement of bulkheads, riprap for shoreline breakwaters and pier pilings.

7.5.1 Dredging, Diking and Filling – Policies

7.5.1-1 The diking, filling or dredging of open coastal waters, wetlands, estuaries and lakes shall only be permitted in accordance with Section 30233 of the Coastal Act and other applicable provisions of this Local Coastal Program, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects pursuant to the policies found within Section 30233 of the Coastal Act.

7.5.1-2 Require dredging and dredged material disposal to be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation.

7.5.1-3 Require at least the following mitigation measures for dredging projects in Dana Point Harbor:

a) Dredging and spoils disposal must be planned and carried out to limit turbidity and to avoid significant disruption to marine and wildlife habitats and water circulation.

b) Maintenance dredging shall be encouraged where the dredging enhances commercial or recreational use of the Harbor. When dredged material is of an appropriate grain size and grain percentage, this material may be used to restore or replace natural sandy sloping beaches in order to retain the current

profiles of Dana Point Harbor. Maintenance dredging activity shall have the approval of the U.S. Army Corps of Engineers and shall meet applicable U.S. Environmental Protection Agency standards.

c) Dredged material not suitable for beach nourishment or other permitted beneficial reuse shall be disposed of offshore at a designated U.S. Environmental Protection Agency disposal site or at an appropriate upland location.

d) Temporary dewatering of dredged spoils may be authorized within the Harbor's drainage if adequate erosion controls are provided and the spoils are removed. A bond or a contractual arrangement shall be a precondition to dredging of the material, and final disposal of the dewatered material on the approved dump site shall be accomplished within the time period specified in the permit.

e) Dredged spoils shall not be used to fill riparian areas, wetlands, or natural canyons.

f) Other mitigation measures may include opening areas to tidal action, removing dikes, improving tidal flushing, restoring eelgrass vegetation, or other restoration measures.

g) Dredge spoils suitable for beach nourishment should be transported for such purposes to appropriate beaches or into suitable longshore current systems provided that the placement is permitted by a Section 404 permit and by a Coastal Development Permit pursuant to Coastal Act Section 30607.7.

7.5.2 Dredge Spoils Disposal

Historically, the County of Orange has carried out maintenance dredging in navigational channels and areas under docks within Dana Point Harbor that have become shoaled due to sediment build up. Following laboratory testing of the materials (chemical composition, grain size and bioassay testing), placement of clean sand has been permitted on or nearshore to Capistrano Beach (adjacent to the Harbor) or on the interior swim beach (Baby Beach) in the Harbor. Other unsuitable material, consisting of fine silty and clayey material was approved for disposal at an EPA approved offshore disposal site.

<u>Dredge Spoils Disposal – Policies</u>

7.5.2-1 Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils

suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

7.5.2-2 Monitor dredging projects within the region to identify opportunities to reduce disposal costs and utilize dredge spoils for beach nourishment.

7.5.2-3 Dredged materials suitable for beneficial reuse shall be transported for such purposes to appropriate areas and placed in a manner that minimizes adverse effects on the environment. Provide onsite monitoring and supervision during the implementation of any permitted beach nourishment activities.

7.5.2-4 All routine maintenance dredging operations involving the dredging of 100,000 cubic yards or more of material within a twelve (12) month period; the placement of dredged spoils within an ESHA, on any sandy area, within 50 feet of the edge of a coastal bluff or ESHA, or within 20 feet of coastal waters or streams; or the removal, sale, or disposal of dredge spoils that would be suitable for beach nourishment in an area the California Coastal Commission has declared by resolution to have a critically short sand supply that must be maintained for protection of structures, coastal access, or public recreational use, shall require a Coastal Development Permit approved by the California Coastal Commission prior to the commencement of dredging operations.

7.5.2-5 All routine maintenance dredging operations shall be conducted in accordance with Regional Water Quality Control Board (RWQCB) requirements to ensure that dredging does not result in increases in water turbidity or that dissolved oxygen in the receiving waters is being depressed below established standards.

7.5.2-6 Dredging activities shall comply with the following construction-related practices:

a) No construction materials, debris, waste, oil or liquid chemicals shall be placed or stored where it may be subject to wave erosion and dispersion, storm water or where it may contribute to or come in contact with nuisance flows;
b) Temporary impacts due to turbidity and sediment color differences during sediment placement activities will occur. However, if turbid conditions exceed allowable jurisdictional thresholds during the dredging or beach replenishment operations, a BMP such as a silt curtain shall be utilized to minimize and control turbidity to the maximum extent practicable;
c) The discharge of any hazardous materials into the Harbor or any receiving waters shall be prohibited;

d) Floating booms used to contain debris discharged into coastal waters. Any debris discharged will be removed as soon as possible, but no later than the end of each working day; and

7.5.2-7 Any required beach area closures for sand replenishment shall be minimized to the maximum extent practicable (generally within 200 feet of the pipeline and deposition area) and shall be re-opened for public use as soon as feasible upon completion of sand placement.

7.6 Total Maximum Daily Loads (TMDL's)

The Dana Point Harbor is located within the Dana Point hydrologic sub-area of the San Juan hydrologic unit, which in turn, is within the San Diego Basin. More specifically, the Harbor lies within the Dana Point Coastal Streams Watershed (also referred to as the Salt Creek Watershed), which drains to the Pacific Ocean.

According to the California 2002 303(d) list published by the San Diego Regional Water Quality Control Board (RWQCB Region 9), both Dana Point Harbor and the Pacific Ocean in the vicinity of the Harbor are listed as impaired for Bacteria Indicators. The Dana Point Harbor impairment is located primarily in the area of Baby Beach and potential sources include urban runoff/storm sewers, marinas and recreational boating, unknown non-point sources and unknown point sources. Approximately 120 acres are affected by the impairment and Dana Point Harbor has been given a "Medium TMDL priority by the SWRCB, with no proposed completion time determined. There are currently no TMDL's established for Dana Point Harbor as a receiving water body.[1]

7.6.1 National Pollutant Discharge Elimination (NPDES)

The Environmental Protection Agency (EPA) is the primary federal agency responsible for the management of water quality in the United States. The Clean Water Act (CWA) is the federal legislation that governs water quality control alternatives initiated by the EPA and other responsible agencies. Section 303 of the CWA requires the adoption of water quality standards for all surface waters in the U.S. Under Section 303(d), each state is required to develop a list of water bodies that do not meet water quality objectives after required levels of treatment by point source dischargers. Total TMDL's must be established for each listed pollutant to bring the water bodies into compliance with the established water quality objectives.

In 1972, provisions of the CWA were amended so that discharge of pollutants to water of the U.S. from any point source is effectively prohibited, unless the discharge is in compliance with a National Pollutant Discharge Elimination (NPDES) permit. The 1987 amendments to

[1] (Conceptual Harbor WQMP, Fuscoe, 11.1.2004, pgs 28-29)

the CWA added Section 402(p), which established a framework for regulating municipal, industrial and construction stormwater discharges under the NPDES program. On November 16, 1990 the EPA published final regulations that established application requirements for stormwater permits for any municipal separate storm sewer system (MS_4) that serves a population of over 100,000 (Phase 1 Communities) and for certain industrial facilities comprising construction sites of 5 acres or greater. On December 8, 1999 the EPA published the final regulations for communities under 100,000 (Phase II MS_4s) and operators of construction sites from 1 acre through 5 acres.

In California, the EPA's NPDES permits are administered by the State Water Resources Control Board (SWRCB). While the EPA allows two permitting options to meet the NPDES requirements (Individual and General Permits), the SWRCB has elected to adopt one Statewide General Permit for California that applies to all construction-related stormwater discharges except for those on tribal lands, those in Lake Tahoe Hydrologic Unit and those from the California Department of Transportation (CalTrans) projects.

Construction activities subject to the General Permit include clearing, grading, stockpiling and excavation that results in soil disturbances of at least one acre of total land area. Construction activities disturbing less that on acre may still be subject to this permit if the activity is part of a larger common plan of development or if significant water impairment will result from the activity.

Dana Point Harbor NPDES – Policies

7.6.1-1 Coordinate with the appropriate Regional Water Quality Control Board, the County of Orange and other agencies and organizations in the implementation of the National Pollution Discharge Elimination System Permits (NPDES) regulations to minimize adverse impacts on the quality of coastal waters. (Coastal Act Section 30231)

7.6.1-2 OC Dana Point Harbor shall obtain coverage under the NPDES Statewide Stormwater Permit for General Construction Activities from the State Water Resources Control Board. Evidence of receipt of permit approval must be presented prior to issuance of a grading permit.

7.6.1-3 As required for obtaining any Grading or Building Permits, OC Dana Point Harbor shall demonstrate compliance under California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing. Projects subject to this requirement shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the project site and be available for review on request.

7.6.1-4 As required for obtaining any Grading or Building Permit, OC Dana Point Harbor shall prepare an Erosion and Sediment Control Plan (ESCP) to demonstrate compliance with local and state water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris and stockpiles of soil, aggregates, soil amendment, etc. shall be properly covered, stored and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion or dispersion. The ESCP shall also describe how the applicant will ensure that all Best Management Practices (BMP's) will be maintained during construction of any future public right-of-ways. A copy of the current ESCP shall be kept at the project site and be available for County review on request.

7.6.1-5 As required for obtaining any Grading or Building Permit (whichever comes first), OC Dana Point Harbor shall prepare a Water Quality Management Plan (WQMP) and/or a project-specific amendment specifically identifying Best Management Practices (BMP's) that will be used on-site to minimize the volume, velocity, and pollutant load of runoff, including measures to prevent, eliminate and/or otherwise effectively address dry weather nuisance flow. The WQMP shall follow the model WQMP prepared by the County of Orange Flood Control District, July 1, 2003, or the most recent version available. This WQMP or amendment thereto shall also demonstrate conformance with the policies and provisions governing Water Quality and Hydrology identified in Chapter 2 of the Dana Point Harbor Revitalization Plan, Resource Protection section, including applicable provisions from the Project Design Features and Requirements section. The WQMP should include one or more of the following:

- Discuss regional water quality and/or watershed programs (if available for the Harbor);

- Address and include Site Design BMP's such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge" areas and conserving natural areas;
- Include any applicable Source Control BMP's and where necessary Treatment Control BMPs, as defined in the DAMP; and
- Demonstrate how surface runoff and subsurface drainage shall be managed and directed to the nearest acceptable drainage facility (as applicable), via sump pumps if necessary.

7.6.1-6 As required for obtaining any Grading or Building Permits (whichever comes first), OC Dana Point Harbor shall include in the WQMP the following additional Priority Project information:

- Include post-construction Structural Treatment Control BMP(s) as defined in the DAMP; and
- Include a conceptual Operation and Maintenance (O&M) Plan that (1) describes the long-term operation and maintenance requirements for the post-construction Treatment Control BMP(s); (2) identifies the entity that will be responsible for long-term operation and maintenance of the referenced Treatment Control BMP(s); and (3) describes the proposed mechanism for funding the long-term operation and maintenance of the referenced Treatment Control BMP(s).

7.6.1-7 As required for obtaining a Certificate of Use and Occupancy, OC Dana Point Harbor shall confirm compliance with the WQMP, including:

- Demonstrate that all structural Best Management Practices (BMP's) described in the applicable WQMP for the project have been implemented, constructed and installed in conformance with the approved plans and specifications;
- Demonstrate that OC Dana Point Harbor has complied with all non-structural BMP's described in the WQMP;
- Submit for review and approval an Operations and Maintenance (O&M) Plan for all structural BMP's for attachment to the WQMP; and
- Demonstrate that copies of the projects approved WQMP (with attached O&M Plan) are available for each of the incoming occupants.

8.0 Development

This Chapter sets forth the Land Use Plan policies for the Dana Point Harbor related to the location of new development in furtherance of the following Coastal Act policies:

Coastal Act 30235 provides:

> *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.*

Coastal Act §30250 provides, in part:

> *(a) New residential, commercial or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.*

Coastal Act 30251 provides:

> *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.*

Coastal Act §30252 provides:

> *The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service; (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads; (3) providing non-automobile circulation within the development; (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation; (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings; and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of on-site recreational facilities to serve the new development.*

Coastal Act 30253 provides:

> *New development shall:*
>
> *(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
> *(b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*
> *(c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.*
> *(d) Minimize energy consumption and vehicle miles traveled.*
> *(e) Where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.*

Coastal Act §30254 provides, in part:

> *New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division…Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state,*

or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

8.1 Dana Point Harbor Revitalization Plan

This Land Use Plan contains policies and development standards in anticipation of implementing the Dana Point Harbor Revitalization Project (Revitalization Plan). The LUP would allow for the establishment of a Commercial Core (northerly portion of Planning Area 1 and all of Planning Area 2) that includes the replacement and/or remodeling of all existing retail and restaurant buildings. The Commercial Core redevelopment (Phase I) would also provide for the reconfiguration of all existing surface parking areas to provide additional parking, new boater loading and drop-off areas, new dry-stack boat storage spaces and improvements to several boater service and public restroom buildings. The initial phase of the contemplated Revitalization Plan would provide for the relocation of certain yacht brokerage firms and other harbor-related offices uses to the Commercial Core area.

Outside the Commercial Core area (Phase II), the Revitalization Plan would provide for a number of future improvements (southerly portion of Planning Area 1 and Planning Areas 3 through 7 [landside] and 8 through 12 [waterside]). In Planning Area 4 the LUP allows for the future renovation and/or expansion of the Dana Point and Dana West Yacht Clubs, restaurant renovations and modifications to the Harbor Patrol Offices to provide additional meeting rooms or staff office space. The LUP would also allow reconfiguration and/or reconstruction of the marina docks and portions of the seawall to add additional guest boater slips closer to the Commercial Core and to construct a dinghy dock area adjacent to Dana Wharf.

The policies in this LUP apply to any other development that may be contemplated in the harbor as well (i.e. that occur in the areas subject to the jurisdiction of the plan).

8.1.1 General Development – Policies

8.1.1-1 Work closely with the County of Orange to plan for the future development within the Harbor and to assure that additional development is compatible with existing uses and enhances the scenic, recreational and visitor opportunities for the area. (Coastal Act Sections 30220-224, 30233, 30234, 30250, 30252, 30255)

8.1.1-2 New development shall minimize energy consumption and vehicle miles traveled. (Coastal Act Section 30253)

8.1.1-3 Wherever appropriate and feasible, public facilities including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the

impacts, social and otherwise, of overcrowding or overuse by the public of any single area. (Coastal Act Section 30212.5)

8.1.1-4 Assure that land use intensities are consistent with capacities of existing and planned public service facilities. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land uses, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation and visitor-serving land uses shall not be precluded by other development. (Coastal Act Sections 30250, 30254)

8.1.1-5 The development of unified or clustered commercial centers shall be encouraged. (Coastal Act Sections 30250, 30252)

8.1.1-6 Consider the impacts on surrounding land uses and infrastructure when reviewing proposals for new development in the Harbor. (Coastal Act Section 30250)

8.1.1-7 Encourage site and building design that takes advantage of the City's excellent climate to maximize indoor-outdoor spatial relationships. (Coastal Act Section 30250)

8.1.1-8 Encourage buildings and exterior spaces that are carefully-scaled to human size and pedestrian activity.

8.1.1-9 Encourage outdoor pedestrian spaces, sidewalks and usable open space in all new development.

8.1.1-10 Encourage aesthetic roof treatment as an important architectural design feature.

8.1.1-11 Consolidate adjacent parking lots, without reducing the number of parking stalls, in order to decrease the number of ingress and egress points onto arterials. (Coastal Act Sections 30210, 30252)

8.1.1-12 Encourage innovative site and building designs and orientation techniques which minimize energy use by taking advantage of sun/shade patterns, prevailing winds, landscaping and building materials.

8.1.1-13 Maintain local legislation to establish, update and implement energy performance building code requirements established under State Title 24 Energy Regulations and to minimize energy consumption. (Coastal Act Sections 30250, 30253)

8.1.1-14 The Dana Point Harbor Revitalization Plan has been developed with the specific intent of promoting Coastal Act compliance, by enhancing public access opportunities, providing updated visitor serving commercial and marine

recreational amenities and promoting coastal resource preservation throughout the Harbor.

8.1.1-15 All new development within the Harbor shall be designed in conformance with all County of Orange and City of Dana Point greenhouse gas emissions and green building requirements applicable to new development that are in place at the time an application for building permit(s) are submitted.

8.1.1-16 All fences and walls within the Harbor area will be designed to have a minimum impact on coastal and scenic views from public areas. If enclosures used to shelter outside eating areas are designed using clear materials, they shall be etched or tinted to make them visible to birds and with awnings or covers that are integrated into the architectural design of the buildings.

8.1.1-17 Architectural and building articulation will have a form that complements the Harbor area and natural setting, when viewed from within the Harbor or the surrounding area (both from land and sea). High, uninterrupted wall planes are to be avoided.

8.1.1-18 All accessory buildings and structures will be consistent with the main structure in materials, color palette, roof pitch and form.

8.1.1-19 All roof-mounted mechanical equipment and communication devices that are visible to and along the Harbor will be hidden behind building parapets or screening materials from both ground level and elevated areas to the extent feasible. Ground-level mechanical equipment, storage tanks and other similar facilities shall be screened from view with dense landscaping and/or walls of materials and finishes compatible with the adjacent areas. In addition, service, storage, maintenance, utilities, loading and refuse collection areas will be located generally out of view of public right-of-ways and uses adjacent to the development area.

8.1.1-20 All new solid waste (refuse / trash collection) areas will be screened from public view.

8.1.1-21 Architectural elements (including roof overhangs, awnings, dormers, etc.) will be integrated into the building design to shield windows from the sun and reduce the effects of glare.

8.1.1-22 The project will utilize minimally reflective glass and other materials used on the exteriors of the buildings and structures will be selected with attention to minimizing reflective glare.

8.1.1-23 Landscape and irrigation plans shall be prepared by a State licensed landscape architect and shall include all proposed and existing plant materials (location, type, size and quantity), an irrigation plan, a grading plan, an approved site plan and a copy of the entitlement conditions of approval.

8.1.1-24 Prior to the issuance of any Grading or Building Permits, OC Dana Point Harbor shall prepare or obtain an acoustical analysis report and appropriate plans which demonstrate that the noise levels generated by Harbor land uses during their operation shall be controlled in compliance with the Orange County Codified Ordinance, Division 6 (Noise Control). The report shall be prepared under the supervision of a County-certified acoustical consultant and shall describe the noise generation potential of the use during its operation and the noise mitigation measures, if needed which shall be included in the plans and specifications for the project to assure compliance with the Orange County Codified Ordinance, Division 6 (Noise Control).

8.1.1-25 Prior to approval of project plans, OC Dana Point Harbor shall confirm that the plans and specifications stipulate that stockpiling and vehicle staging areas shall be located as far as practical from noise-sensitive receptors during construction activities.

8.1.1-26 Roof-mounted solar panels, metal panels and skylights should incorporate non-reflective materials and be designed to point away from roadways to the extent possible while assuring proper function.

8.1.1-27 The parking deck design shall include a light well that separates the upper deck area, allowing light and/or installation of landscaping elements to enhance the visual appearance of the structure.

8.1.1-28 Contractors shall install landscaping, equipment for irrigation and improvements in all areas of the Harbor in accordance with the following:

a) Detailed Plan – Prior to the issuance of any Coastal Development Permit(s), a detailed landscape plan showing the detailed irrigation and landscaping design shall be submitted to the City of Dana Point as part of a CDP application for approval. Plans shall show the detailed irrigation and landscaping design, the County Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and plan requirements, water conservation measures (contained in Board of Supervisors Resolution No. 90-487 – Water Conservation Measures and Resolution 90-1341 – Water Conservation Implementation Plan).

b) Installation Certification – Prior to issuance of final certificates of use and occupancy, said improvements shall be installed and shall be certified by a licensed landscape architect or licensed landscape contractor, as having been installed in accordance with the approved detailed plans. Said certification including irrigation management report for each landscape irrigation system and any other required implementation report determined applicable shall be submitted to County of Orange, Building and Grading Inspection Services Division**.**

8.1.1-29 Prior to issuance of any Grading Permit, a Construction Staging Plan shall be prepared. The contractor's construction equipment and supply staging areas shall be established away from existing marina operations to the extent feasible. The plan shall specify the following:

a) During construction and grading, the contractor shall keep the site clear of all trash, weeds and debris.
b) The grading contractor shall not create large stockpiles of debris or soils, but shall seek to place smaller piles adjacent to each other to minimize visual impacts.
c) Staging areas shall be located where impacts upon public access, water quality, and sensitive biological resources are avoided.

8.1.1-30 Prior to issuance of a grading permit for new development, screened construction fencing shall be provided around the construction area to temporarily screen views of the construction site.

8.1.1-31 All new landscaped areas in the Harbor shall be planted in accordance with the planting palette as approved in a Coastal Development Permit.

8.1.1-32 OC Dana Point Harbor shall confirm that grading and drainage plans are reviewed with a geotechnical report and that the plans include the following notes:

a) All construction vehicles and equipment, fixed or mobile and operated within 1,000 feet of a dwelling shall be equipped with proper operation and maintained mufflers;
b) All operations shall comply with the County's Noise Ordinance; and
c) Stockpiling and/or vehicle staging areas shall be located as far away as practical from dwellings.

8.1.1-33 Interior and exterior water conservation measures will be incorporated into all Harbor projects as development occurs to the extent possible. Measures will include (but are not limited to) low-flush toilets, low-flow faucets and the installation of efficient irrigation systems to minimize runoff and evaporation.

8.1.1-34 Construction phasing for new development shall be designed to minimize the disruption of vehicular and pedestrian access routes and parking availability throughout the Harbor. In the event of temporary closures, alternative routes and clear directional signage will be provided.

8.2 Location of New Development

The Coastal Act provides for the protection of coastal resources by requiring that new development be located in areas in close proximity to existing development with available public services to minimize the impacts associated with the extension of infrastructure and services. Since Dana Point Harbor is presently completely built-out, all new development will occur in the form of replacement or in-fill development projects.

8.2.1 Location of New Development – Policies

8.2.1-1 The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service; (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads; (3) providing non-automobile circulation within the development; (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation; (5) assuring the potential for public transit for high intensity uses; and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of on-site recreational facilities to serve the new development. (Coastal Act Section 30252)

8.2.1-2 New development shall be sited and designed on the most suitable portion of the Harbor while ensuring protection and preservation of natural and sensitive site resources by providing for the following:

- Protecting areas that provide important water quality benefits, areas necessary to maintain riparian and aquatic biota and/or that are susceptible to erosion and sediment loss;
- Analyzing the natural resources and hazardous constraints of planning areas and individual development sites to determine locations most suitable for development;
- Promoting clustering of development on the most suitable portions of a site taking into account geologic constraints, sensitive resources and natural drainage features;
- Preserving and protecting riparian corridors, wetlands and buffer zones;
- Minimizing disturbance of natural areas, including significant trees, native vegetation and root structures;

- Using natural drainage as a design element, maximizing the preservation of natural contours and native vegetation; and
- Limiting land disturbance activities such as clearing and grading, limiting cut-and-fill to reduce erosion and sediment loss and avoiding steep slopes, unstable areas and erosive soils.

8.2.1-3 Review all applications for new development to determine potential threats from sea level rise, coastal and other hazards.

8.2.1-4 Design and site new development to avoid hazardous areas and minimize risks to life and property from sea level rise, coastal and other hazards.

8.2.1-5 Require new development to assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

8.2.1-6 Require new development to be setback from slopes sufficiently to assure a minimum factor of safety against sliding of 1.5 (static) or 1.1 (pseudostatic, k=0.15) for the economic life of the development, which shall normally be assumed to be a minimum of 75 years.

8.2.1-7 The design and layout of the future developments shall be consistent with the approved Land Use Plan and preserve views of the bluff area.

8.3 Coastal Development Review

Coastal Act policies related to development review that are relevant to Dana Point Harbor Revitalization Plan include the following:

Coastal Act §30600 provides, in part:

(a) Except as provided in subdivision (e) and in addition to obtaining any other permit required by law from any local government or from any state, regional or local agency, any person as defined by Section 21066, wishing to perform or undertake any development in the coastal zone, other than a facility subject to Section 25500, shall obtain a coastal development permit.

(d) After certification of its Local Coastal Program [Amendment] or pursuant to the provisions of Section 30600.5, a coastal development permit shall

be obtained form the local government as provided for in Section 30519 or Section 30600.5.

To ensure that development within Dana Point Harbor is consistent with the Dana Point Harbor Revitalization Plan and District Regulations, applicable portions of the City of Dana Point LCP and policies from Chapter 3 of the Coastal Act, the City of Dana Point will require a Coastal Development Permit prior to commencement of any development, with the exceptions of developments in areas where the Coastal Commission retains permit jurisdiction or developments determined to be excluded from Coastal Development Permit requirements pursuant to Dana Point Zoning Code Section 9.69.040.

8.3.1 Coastal Development Review – Policies

8.3.1-1 After certification of the LCP, require a Coastal Development Permit for all development within the coastal zone, subject to exceptions provided for under the Coastal Act.

8.3.1-2 Applications for Coastal Development Permits for Dana Point Harbor Planning Areas 1 through 7 (landside areas) shall be in accordance with the Dana Point Harbor District Regulations and the City of Dana Point Zoning Code, Chapter 9.69, Coastal Development Permit application.

8.3.1-3 Applications for Coastal Development Permits for Dana Point Harbor Planning Areas 8 through 12 (waterside areas) shall be made to the California Coastal Commission in a form consistent with Chapter 5, Coastal Development Permits Issued by the California Coastal Commission.

8.3.1-4 Prior to approval of any Coastal Development Permit by the City of Dana Point for landside areas, the City shall make a finding that the development conforms to the policies and requirements contained in the Dana Point Harbor Revitalization Plan and District Regulations.

8.3.1-5 Pursuant to Coastal Act section 30601.3, if a proposed project requires a Coastal Development Permit from both the City of Dana Point (because it includes development in the jurisdiction of the certified local coastal program) and the California Coastal Commission (because it includes development in the Commission's area of retained jurisdiction); and if the applicant, the City of Dana Point, and the Commission consent to consolidate the permit action, then the Commission may process and act upon a consolidated Coastal Development Permit application, provided that public participation is not substantially impaired by that review consolidation. The standard of review for a consolidated Coastal Development Permit application submitted pursuant to this policy shall follow Chapter 3 of the Coastal Act (commencing with Section 30200), with the City of Dana Point local coastal program used as guidance. The application fee for a

consolidated Coastal Development Permit shall be determined by reference to the Commission's permit fee schedule.

8.4 Scenic and Visual Resources

The following Coastal Act policy is relevant to Dana Point Harbor Revitalization Plan related to scenic and visual resources:

Coastal Act §30251 provides, in part:

> *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.*

Policies included in Chapter 3, Article 6 of the Coastal Act are intended to protect the scenic beauty of the coastal landscape as a resource of public importance. Policies direct new development to be located in existing urbanized and/or developed areas with adequate services, rather than allowing a scattered pattern of subdivision and potentially dividing continuous areas of the coastline into divided communities. The policies regulate new development to ensure compliance with air quality regulations; to minimize risks in areas of high geologic, flood and fire hazard to assure stability and structural integrity; to neither create nor contribute significantly to erosion, geologic instability or destruction of the coastline or surrounding areas; and where appropriate, to protect the publics right to access.

8.4.1 Scenic and Visual Resource – Policies

8.4.1-1 Protect and enhance public views to and along the coast through open space designations and innovative design techniques. (Coastal Act Section 30251)

8.4.1-2 Ensure development within designated and proposed scenic corridors are compatible with scenic enhancement and preservation and shall not significantly impact public views through these corridors. (Coastal Act Section 30251)

8.4.1-3 Site and architectural design shall respond to the natural landform whenever possible to minimize grading and visual impact. (Coastal Act Section 30250)

8.4.1-4 Textured paving will be used to identify lookouts, pathway crossings and edge treatments. All landscape areas will be planted consistent with landscape plans approved through the Coastal Development Permit process to preserve and enhance ocean views.

8.4.1-5 In areas that abut Planning Area 7, a landscape buffer will be maintained. All new plant material in recreational areas will be native or non-invasive and drought tolerant species to provide a transition between natural and ornamental areas.

8.4.1-6 The planting of trees within new development will provide a visually soft and natural backdrop while framing and protecting significant public view opportunities.

8.4.1-7 Vertical landscape elements and setbacks between buildings shall be incorporated into the design of new development to break up building massing.

8.4.1-8 Street and parking lot lighting shall be positioned to enhance the vehicular and pedestrian safety. Lighting shall be concentrated on intersections and pedestrian crosswalks and shall be directed downward.

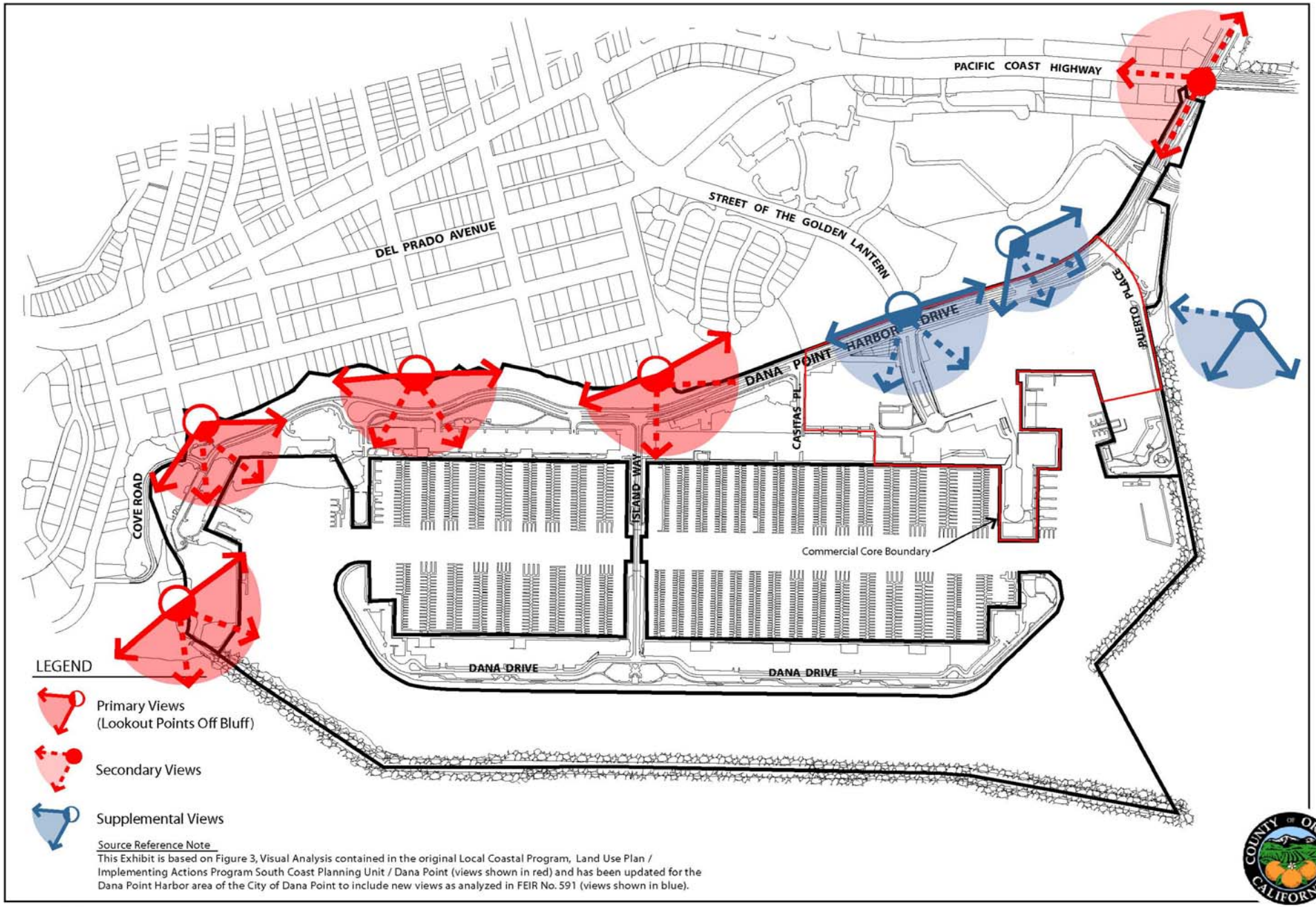
8.4.1-9 All exterior lighting will be designed and located to avoid intrusive effects on the adjacent uses atop the bluffs and Doheny State Beach. New light fixtures will be designed to direct light on-site, away from other areas and where feasible (not interfering with public safety), minimize impacts to nesting birds or other sensitive biological resource areas within the boundaries of the LCP.

8.5 Coastal Views

Dana Point Harbor's natural setting borders the Pacific Ocean, principally marked by the Headlands and coastal bluffs. The Headlands is one of the most prominent features of the southern California coastline between Point Loma (in San Diego County) and the Palos Verdes Peninsula (in Los Angeles County). Scenic resources of the City of Dana Point and Dana Point Harbor include vistas and panoramas of the Pacific Ocean and distant views of the Southern California coastline. Primary and secondary views are identified on Exhibit 8-1, Dana Point Harbor View Corridors.

Views of the Dana Point Harbor area from Pacific Coast Highway (PCH) are limited as a result of development on and along the coastal bluffs. However, the eastern portion of Dana Point Harbor is partially visible from PCH across Doheny State Beach, including the eastern jetty and portions of the shipyard area of the Harbor. Structures within Dana Point Harbor are partially obstructed by the existing eucalyptus trees. Within the Harbor, views from Street of the Golden Lantern consist primarily of commercial buildings, parking areas and landscaping within the existing Mariner's Village and commercial areas.

Dana Point Harbor Drive serves as a portion of the northerly boundary of the Harbor, providing vehicular access to all the facilities. The existing Harbor area is fully developed, being comprised of buildings of varying heights, surface parking areas, meandering



Source Reference Note

This Exhibit is based on Figure 3, Visual Analysis contained in the original Local Coastal Program, Land Use Plan / Implementing Actions Program South Coast Planning Unit / Dana Point (views shown in red) and has been updated for the Dana Point Harbor area of the City of Dana Point to include new views as analyzed in FEIR No. 591 (views shown in blue).

Dana Point Harbor
REVITALIZATION PLAN & DISTRICT REGULATIONS

Exhibit 8-1

DANA POINT HARBOR VIEW CORRIDORS

02.08.2010

walkways, large open space grass areas that include various types of picnicking facilities, boat slips, docks and other urbanization features.

As a result of implementation of the contemplated Dana Point Harbor Revitalization Plan, views from the Street of the Golden Lantern and those areas to the northwest would be altered as a result of the consolidation of the commercial and retail uses along the waterfront, the planned parking deck and landscape improvements. The planned reconfiguration of the commercial land uses will also potentially allow additional opportunities to view the marinas with the creation of the Festival Plaza that aligns with the main Harbor entrance from Street of the Golden Lantern.

Although certain views from the public parks located north of the Harbor along the bluffs will be somewhat altered by the implementation of the planned dry boat storage facility, as the result of extensive public review and implementation of the recommended design modifications at the time of the Dana Point City Council approval of the Dana Point Harbor Revitalization Plan, the facility has been designed and located to minimize view impacts from these public viewpoints.

Current uses within the Harbor area produce light and glare typical of a small-craft Harbor, with relatively limited high-intensity lighting and small amounts of metallic surfaces on existing facilities. Existing on-site light sources include parking lot lighting, interior lighting from the assemblage of buildings, security lighting and flood lighting at the boat docks. Occasional special events require temporary lighting, typically placed in the parking lot areas. Glare generation in the Harbor is predominantly a nighttime event. With the exception of the Ocean Institute, there are no buildings that have large glass or polished surfaces.

8.5.1 Bulk and Height Limitation

The Dana Point Harbor is viewed as a unique marine recreational facility that provides year round activities for local residents, the boating public and visitors. The Dana Point Harbor Revitalization Plan proposes to upgrade the amenities and facilities to address present and future demand and also enhance varied opportunities for inside and outside dining, walking, viewing and public access ways. The defining vision behind the Dana Point Harbor Revitalization Plan is to unify the entire Harbor under the design theme of "California Coastal". This vision is a hybrid-style based on the historic characteristics of coastal villages merged with the California traditions of open space and outdoor living.

The model for a California Coastal Village is a coastal area that has an appearance of being constructed over time, with buildings being added as needed, while at the same time allowing the various buildings to differentiate themselves based on users and individual type of businesses. Generally, buildings would share a color palette of cool colors, mixed with brighter accents and contrasting trim elements. Building exterior finishes would also share

many materials which can be deployed in numerous ways such as clapboard, shingle, stone trim and stucco. By unifying some architectural elements, such as roof pitches and railings, these buildings would present a varied yet unified village appearance.

Building height limits would provide for greater architectural design features and allow for visitor serving uses to be located on two levels, taking advantage of increased access with additional parking from the parking deck to the restaurants and retail areas as well as to other surrounding areas of the Harbor. The building heights established in this LUP also allow for the concentration of the Commercial Core and providing a Festival Plaza for public access and assembly in a park-like setting.

The scale of Dana Point Harbor allows the creation of a unique setting that includes the clustering of buildings together to provide a comfortable pedestrian setting for retail merchants and restaurants. The new village would also be moved closer to the existing Dana Wharf to create a stronger pedestrian link with the buildings that will remain and adjacent parking areas. A small number of careful architectural interventions would bring the California Coastal style to the existing buildings to remain, but allow their uniqueness to enhance the overall Commercial Core by appearing to have been built over time.

Bulk and Height Limitation – Policies

8.5.1-1 New building architecture shall encourage irregular massing of structures.

8.5.1-2 Building massing should be asymmetrical and irregular with offsets in plan, section and roof profile.

8.5.1-3 All new development in the Harbor shall not exceed a maximum building height of thirty-five (35) feet; exceptions to the 35 foot height limit include the following:

- Dry Stack Boat Storage building in the Marine Services Commercial area (Planning Area 1) shall have a maximum building height of sixty-five (65) feet;
- Commercial Core area (Planning Area 2) buildings fronting on the Festival Plaza or structures fronting the East Marina Boat Basin (Planning Area 10) shall be a maximum of sixty (60) feet high;
- Visitor-Serving Commercial (Planning Area 3) building(s) shall have a maximum height of fifty (50) feet;
- Elevators, appropriately screened mechanical units and chimneys that do not exceed the ten percent (10%) of the total roof area for all new and existing/remodeled structures, should conform to the applicable height limit, but may exceed that height limit by no more than five (5) additional feet.

These heights are only allowed to the extent that significant coastal public views through scenic corridors and from scenic viewpoints are protected and enhanced.

Buildings, excluding the dry stack storage building, need to be consistent with the character of the area.

The limitations on height for the Marine Services Commercial area (Planning Area 1) shall not apply to shipyard cranes and/or other equipment necessary to provide for boat maintenance and repair.

8.5.1-4 The appearance of long, continuous row structures shall be avoided through the provision of open spaces, setbacks from public walkways, varied roof treatments, staggered, stepped-back exterior building facades and incorporation of a variety of building designs, materials and colors.

8.5.2 Natural Landform Protection

The bluffs, cliffs, hillsides and other significant natural landforms are an important part of the scenic and visual qualities of the coastal zone and are to be protected as a resource of public importance. Dana Point Harbor from its early history as the harbor for Mission San Juan Capistrano and the site visited by Richard Henry Dana, has emphasized its maritime identity as a place in which to engage the sea. The Harbor's natural setting borders the Pacific Ocean, principally marked by the Headlands and coastal bluffs. The Headlands is one of the most prominent features of the southern California coastline between Point Loma (in San Diego County) and the Palos Verdes Peninsula (in Los Angeles County).

Development will be designed to ensure that permitted development is 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 to minimize the alteration of natural land forms, to be visually compatible with the character of the surrounding areas and where feasible, to restore and enhance visual quality in visually degraded areas. New development when proposed 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. (Coastal Act Section 30251)

<u>Natural Landform Protection – Policy</u>

8.5.2-1 Preserve significant natural features as part of new development. Permitted development shall be sited and designed to minimize the alteration of natural landforms. Improvements adjacent to beaches shall protect existing natural features and be carefully integrated with landforms. (Coastal Act Section 30240, 30250, 30251, 30253)

Coastal Bluffs

Coastal bluffs are formed by a rapid uplift of the shore relative to sea level. Dana Point Harbor is located within the northwest-trending Peninsular Ranges in southern California. The Peninsular Ranges province is an elongated area characterized by parallel fault-bounded mountain ranges and intervening valleys. The Harbor is a coastal reentrant (cove) protected by the Headlands at Dana Point. The protected cove owes it existence to differing resistance to wave erosion of the two bedrock formations exposed along a fault in the steep coastal bluff. Bedrock units include the Capistrano Formation and the San Onofre Breccia, both of which are exposed in the sea cliffs behind the Harbor.

The Land Use Plan provides for the preservation of the coastal bluff-face as an important coastal resource. Planning Area 7 presently includes a small amount of coastal sage scrub, which is a sensitive plant species that provides habitat for other sensitive plant and animal species and is reserved for conservation.

Dana Point Harbor Coastal Bluffs – Policies

8.5.2-2 The design and layout of the future developments shall be consistent with the approved Land Use Plan and preserve views of the bluff area.

8.5.2-3 Preserve Dana Point's bluffs as a natural and scenic resource and avoid risk to life and property through responsible and sensitive bluff top development, including, but not limited to, the provision of drainage which directs runoff away from the bluff edge and towards the street, where feasible and the prohibition of permanent irrigation systems and the use of water intensive landscaping within the setback area to prevent bluff erosion. (Coastal Act Sections 30251, 30253)

8.5.2-4 Bluff repair and erosion control measures such as retaining walls and other similar devices shall be limited to those necessary to protect coastal-dependent uses or existing structures in danger from erosion to minimize risks to life and property and shall avoid causing significant alteration to the natural character of the bluffs. For the purposes of this policy, "existing" shall mean structures existing at the time of certification of Local Coastal Program Amendment No. 1-08 (Coastal Act 30251, 30253)

8.5.2-5 No development will be permitted on the bluff face, except for drainpipes as follows. Drainpipes will be allowed only where no other less environmentally damaging drain system is feasible and the drainpipes are designed and placed to minimize impacts to the bluff face, toe and beach and visual treatment of the drain system is incorporated (e.g. color to match adjacent soil/vegetation, screening with native vegetation, etc.). Drainage devices extending over the bluff face will not be permitted if the property can be drained away from the bluff face.

8.5.2-6 Development adjacent to coastal bluffs shall minimize hazards to owners, occupants, property and the general public; be environmentally sensitive to the natural coastal bluffs; and protect the bluffs as a scenic visual resource.

8.5.2-7 For purposes of this section, bluff edge shall be defined as the upper termination of a bluff, cliff, or seacliff. In cases where the top edge of the cliff is rounded away from the face of the cliff as a result of erosional processes related to the presence of the steep cliff face, the bluff line or edge shall be defined as that point nearest the cliff beyond which the downward gradient of the surface increases more or less continuously until it reaches the general gradient of the cliff. In a case where there is a steplike feature at the top of the cliff face, the landward edge of the topmost riser shall be taken to be the cliff edge.

8.5.2-8 The Land Use Plan provides for the protection of the Bluffs in Planning Area 7 by restricting the siting of any structures adjacent to the bluffs with the exception of drainage control structures and recreational structures (e.g., public picnic areas, etc.).

8.5.3 Signs

A signage program will be implemented that is consistent with the California Coastal theme. Commercial signage will be of appropriate village scale and designed for legibility within the pedestrian-scale Festival Plaza. Column-mounted blade signs perpendicular to the pedestrian flow will be easily readable and additional elements may be printed on the awnings. The signage will be proportional in size to the proposed awnings and limited by reasonable vertical head heights along the pedestrian right-of-way. Directional and wayfinding signage will also reflect the material and color palettes appropriate to the development theme.

Dana Point Harbor Sign – Policies

8.5.3-1 Design and site signs to minimize visual impacts to coastal resources.

8.5.3-2 Implement programs to remove illegal signs and amortize legal nonconforming signs.

8.5.3-3 Prohibit new billboards and roof top signs and regulate the bulk and height of other freestanding signs that affect public coastal views.

8.5.3-4 Encourage the reasonable regulation of signs to preserve the character of the community. (Coastal Act Section 30251)

8.5.3-5 Signs shall be designed and located to minimize impacts to visual resources. Signs approved as part of any commercial development shall be incorporated into the

design of the project and shall be subject to height and width limitations that ensure that signs are visually compatible with surrounding areas and protect scenic views. Roof signs or flashing signs shall not be permitted.

8.5.3-6 A comprehensive Dana Point Harbor Sign Program shall include provisions for providing clear and conspicuous notice to assist the public in locating and recognizing trail access points, recreation areas and other visitor recreational amenities. In areas containing sensitive habitat or safety hazards, signs shall be posted with a description of the sensitive habitat or safety hazard and limitation on entry to those areas.

8.5.3-7 All signage shall be of a consistent architectural style. Commercial signage shall be externally illuminated and lighting sources shall be hidden by vegetation or installed flush with the grade. Signage shall be designed to complement the architecture of the buildings.

8.5.3-8 Signage throughout the Harbor shall be designed to reduce pedestrian/vehicle conflicts (i.e., no crossing signs).

8.5.3-9 OC Dana Point Harbor shall provide a construction sign program to direct Harbor visitors and boaters to available parking.

8.5.3-10 A comprehensive signage program for public access shall be implemented in conjunction with the construction of the Commercial Core area and subsequent Planning Areas within the Harbor to inform the public of the availability of and provide direction to public parking areas, coastal access and on-site recreational amenities.

8.5.3-11 Remove existing signs and prohibit new signs that adversely impact public access.

8.6 Hazards and Protective Devices

Coastal Act policies related to hazards and protective devices that are relevant to Dana Point Harbor Revitalization Plan include the following:

Coastal Act §30235 provides:

> *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to*

pollution problems and fish kills should be phased out or upgraded where feasible.

Coastal Act §30253 provides:

New development shall do all of the following:

(a) Minimize risks to life and property in areas of high geologic, floor and fire hazard.

(b) Assure stability and structural integrity and neither create nor contribute significantly to erosion, geologic instability or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

(c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.

(d) Minimize energy consumption and vehicle miles traveled.

(e) Where appropriate, protect special communities and neighborhoods which, because of their unique characteristics are popular visitor destination points for recreational uses.

Coastal Act §30236 provides:

Channelizations, dams or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible and be limited to:

(1) Necessary water supply projects;

(2) Flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development; or

(3) Developments where the primary function is the improvement of fish and wildlife habitat.

8.6.1 Hazards and Protective Devices – General Policies

8.6.1-1 Identify flood hazard areas (taking into account riverine and coastal flooding sources and sea level rise) and provide appropriate land use regulations, such as but not limited to the requirement that new habitable development shall have the lowest floor, including basement, elevated to or above the base flood elevation, for areas subject to flooding in order to minimize risks to life and property. (Coastal Act Sections 30235, 30253)

8.6.1-2 Retain, protect and enhance local drainage courses, channels and creeks in their natural condition, where feasible and desirable, in order to maximize their natural

hydrologic functioning so as to minimize adverse impacts from storm water run-off. (Coastal Act Section 30231)

8.6.1-3 Control erosion during and following construction through proper grading techniques, vegetation replanting and the installation of proper drainage and erosion control improvements. (Coastal Act Section 30243)

8.6.1-4 Require the practice of proper soil management techniques to reduce erosion, sedimentation and other soil-related problems. (Coastal Act Section 30243)

8.6.1-5 Lessen beach erosion by minimizing any human-caused activities which would reduce the replenishment of sand to the beaches. (Coastal Act Section 30235)

8.6.1-6 Whenever feasible, the material removed from erosion control and flood control facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of the Local Coastal Program and where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a Coastal Development Permit for such purposes are the characteristics of the material (grain size and color), potential contamination), method of placement, time of year of placement and sensitivity of the placement area. (Coastal Act Sections 30233, 30607.7)

8.6.1-7 Shoreline or ocean protective devices such as revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls and other such protective devices or construction that alters shoreline processes shall only be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion and when designed to mitigate adverse impacts on local shoreline sand supply and minimize adverse impacts on public use of sandy beach areas, unless a waiver of future shoreline protection was required by a previous Coastal Development Permit. "Existing structures" for purposes of this policy shall consist only of a principle structure, e.g. a commercial building existing at the time of certification of Local Coastal Program Amendment No. 1-08, and shall not include accessory or ancillary structures such as decks, patios, stairs, landscaping etc. (Coastal Act Section 30210-12, 30235)

8.6.1-8 Maintain existing jetties and modify as necessary to eliminate or mitigate adverse effects on shoreline processes.

8.6.1-9 Design and site protective devices to minimize impacts to coastal resources, minimize alteration of natural shoreline processes, provide for coastal access, minimize visual impacts, adapt to sea level rise and eliminate or mitigate adverse impacts on local shoreline sand supply.

8.6.1-10 Limit the use of protective devices to the minimum required to protect existing development and prohibit their use to enlarge or expand areas for new, non-

coastal dependent development. Such devices shall be located as far landward as possible. "Existing development" for purposes of this policy shall consist only of a principle structure, e.g. a commercial building existing at the time of certification of Local Coastal Program Amendment No. 1-08, and shall not include accessory or ancillary structures such as decks, patios, stairs, landscaping etc.

8.6.1-11 Site and design new structures to avoid the need for new shoreline and bluff protective devices during the economic life of the structure (75 years).

8.6.1-12 Future waterside improvements to the east and west of the breakwaters (Planning Areas 8, 11 & 12) shall be reconstructed within the seaward footprint of the existing structures except as necessary to provide for public safety or public access. Construction activities taking place below the mean higher high water (MHHW) mark shall prepare a focused marine biological survey to determine if sensitive species are present.

8.6.1-13 New building design will include storm water collection systems (e.g., roof-top drainage directed into storm or sewer system).

8.6.1-14 Parking areas will be designed to direct surface run-off away from the Harbor Marinas.

8.6.1-15 As required for obtaining a Grading Permit, the following drainage studies shall be prepared:

a) A drainage study of the project, including diversions, off-site areas that drain onto and/or through the project and justification of any diversions; and
b) When applicable, a drainage study evidencing that proposed drainage patterns will not overload existing storm drains; and
c) Detailed drainage studies indicating how the project grading, in conjunction with the drainage conveyance systems including applicable swales, channels, street flows, catch basins, storm drains and flood water retarding will allow building pads to be safe from inundation from rainfall runoff which may be expected from all storms up to and including the theoretical 100-year flood.

8.6.1-16 Prior to the issuance of any grading permits, OC Dana Point Harbor shall:

a) Design provisions for surface drainage; and
b) Design all necessary storm drain facilities extending to a satisfactory point of disposal.

8.6.1-17 Consider the constraints of natural and man-made hazards in determining the location, type and intensities of new development. (Coastal Act Sections 30240, 30253)

8.6.2 Tsunamis and Rogue Waves

Tsunamis

A tsunami is a sea wave caused by any large-scale disturbance of the ocean floor that occurs in a short period of time and causes a sudden displacement of water. Tsunamis can travel across the entire Pacific Ocean basin or they can be local. Tsunamis are not comprised of a single wave, but rather a series of waves. The most frequent causes of tsunamis are shallow underwater earthquakes and submarine landslides; however, underwater volcanic explosions, oceanic meteor impacts and even underwater nuclear explosions can cause tsunamis. The historical tsunami record for California suggests that the tsunami hazard in the Southern California region, from the Palos Verdes Peninsula south to San Diego has a moderate likelihood of occurrence. However, the Southern California historical record is not very extensive and it is possible that the Southern California area has been impacted by tsunamis events for which there is no record.

Dana Point Harbor Tsunamis – Policies

8.6.2-1 Periodically review tsunami preparation and response policies/practices to reflect current and predicted future sea level trends, development conditions, and available tools and information for preparedness and response.

8.6.2-2 Periodically review inundation maps and design standards, update identification of susceptible areas, evacuation routes and building codes as new information on tsunami and design standards becomes available.

8.6.2-3 Participate in any regional effort to develop and implement workable response plans that the County and City emergency services personnel can incorporate into evacuation plans in the case of tsunami warnings.

8.6.2-4 Review local and distant tsunami inundation maps for Dana Point and adjacent coastal communities to identify susceptible areas and plan evacuation routes.

8.6.2-5 Include tsunami evacuation route information as part of any overall evacuation route sign program implemented in the City. Evacuation routes out of the Harbor should be clearly posted. An evacuation route traffic monitoring system that provides real-time information on the traffic flow at critical roadways should be considered.

8.6.2-6 Continue projects that maintain beach width. Wide beaches provide critical protection against tsunami run-up for structures along the oceanfront.

8.6.2-7 Develop and implement a tsunami educational program for residents, visitors, and people who work in the susceptible areas.

8.6.2-8 Require overnight visitor-serving facilities in susceptible areas to provide tsunami information and evacuation plans.

8.6.2-9 OC Dana Point Harbor shall prepare an assessment of the potential impacts of inundation from a tsunami taking into account future sea-level rise on the existing and proposed building structures along the seawall.

Rogue Waves

Rogue waves are very high waves (tens of meters high) that arise unexpectedly in the open ocean for no clearly defined cause. Due to the unpredictable nature of these waves it is difficult to create specific plans to minimize their effects.

Dana Point Harbor Rouge Wave – Policy

8.6.2-3 Regulate the construction of non-recreational uses on coastal stretches with high predicted storm wave run-up to minimize risk of life and property damage. Take projected sea-level rise into account when evaluating storm wave run-up. (Coastal Act Section 30253)

8.6.3 Storm Surges and Seiches

Storm surges are temporary rises in water level caused by storm winds blowing across miles of open water and dragging some water towards the down-wind shore. This causes a build-up in water level along the down-wind shore. Storm surges occur on ocean coasts or on the shores of large water bodies and typically last as long as the strong winds are blowing onshore.

Seiches are periodic oscillations of water level set in motion by some atmospheric disturbance passing over a large enclosed water body, such as a lake. The disturbances that cause seiches include the rapid changes in atmospheric pressure with the passing of low or high pressure systems, rapidly-moving weather fronts and major shifts in the directions of strong winds. One or more seiches following a storm surge may cause repeated flooding of low-lying property.

Storm Surges and Seiches – Policies

8.6.3-1 Prepare and periodically update (every five years) a Shoreline Management Plan for Dana Point Harbor to assess seasonal and long-term shoreline changes and the potential for flooding or damage from erosion, sea-level rise, waves, storm surge or seiches and provide recommendations for protection of existing and proposed development, public improvements, coastal access, public opportunities for coastal recreation and coastal resources. Plan must also evaluate the feasibility of hazard avoidance, planned retreat, retrofitting existing or proposing new protection

devices and restoration of the sand supply and beach nourishment in appropriate areas of the Harbor, if needed.

8.6.3-2 Siting and design of new shoreline development anywhere in Dana Point Harbor and the siting and design of new or replacement shoreline protective devices shall take into account anticipated future changes in sea level.

8.6.3-3 New or modified shoreline or ocean protective devices such as revetments, breakwaters, groins, Harbor channels, seawalls, cliff retaining walls and other such construction that alters shoreline processes shall be designed to minimize impacts to coastal resources, minimize alteration of natural shoreline processes, provide for coastal access and minimize visual impacts.

8.6.3-4 Require all Coastal Development Permit applications for new development on a beach or other waterfront area or on a coastal bluff property with the potential to be subject to wave action to assess the potential for flooding or damage from sea level rise, waves, storm surge or seiches, through a wave uprush and impact reports prepared by a licensed civil engineer with expertise in coastal processes. The conditions that shall be considered in a wave uprush study are: a seasonally eroded beach combined with long-term (75 years) erosion; high tide conditions, combined with long-term (75 year) projections for sea level rise; storm waves from a 100-year event or a storm that compares to the 1982/83 El Niño event.

8.6.3-5 Encourage the use of non-structural methods, such as dune restoration and beach nourishment, as alternatives to static shoreline protective structures.

8.6.3-6 OC Dana Point Harbor shall prepare an assessment of the potential wave run-up from a seiche or tsunami near the Harbor during a major seismic event including but not limited to an event on the Newport-Inglewood Fault and/or San Jacinto Mountains Faults prior to submittal of the first coastal development permit for development of the Commercial Core.

8.6.4 Hurricanes and Tropical Storms

Most hurricanes that affect the southern California region are generated in the southern portion of the Gulf of California. Though no hurricane-strength storms have reportedly hit the Los Angeles basin area in modern times, damage from wave swell and weather related to hurricanes that develop in the Baja California area have the potential to affect areas along the southern California coastline by causing localized flooding.

8.6.5 Sea Level Rise

Local mean sea level (LMSL) is defined as the height of the sea with respect to a land benchmark, averaged over a period of time long enough that fluctuations caused by waves

and tides as well as any vertical movements of the land. Atmospheric pressure, oceanic currents and local ocean temperatures also affect LMSL.

Historic sea level rise is documented as occurring at a rate of approximately 1.8mm per year for the past century, in part as a result of human-induced climate change. It is currently assumed that climate change will continue to increase sea level over at least the coming century. Increasing temperatures result in sea level rise by the thermal expansion of water and through the addition of water to the oceans from the melting of continental ice sheets. Thermal expansion, which is well-quantified, is currently the primary contributor to sea level rise and is expected to remain a significant contributor over the course of the next century. Glacial contributions to sea-level rise have been less significant but recent large losses of glacial mass indicate that glaciers may become more significant contributors to future sea level, but the contributions are difficult to project.

The Fourth Assessment Report on the Intergovernmental Panel on Climate Change (IPCC 2007) projects an increase of temperature ranging between 1.1 and 6.4 ^{o}C over the next century, necessarily entailing a reduction of the amount of ice worldwide. Although it is not well established how fast the ice sheet will melt, if the Greenland and the West and East Antarctica ice sheets were to melt, it would result in a rise in the overall world sea level by approximately 65 meters. The U.S. Environmental Protection Agency approximates that 10,000 square miles of land would be erased by a 2-foot rise in sea level. A 1-foot rise in sea level might well translate to a 200-foot retreat of shoreline. In addition, the IPCC suggests that by 2080, sea level rise could convert as much as 33-percent of the world's coastal wetlands to open water (IPCC 2007).[1]

Sea level rise is also expected to make coastal cities more vulnerable to extreme weather (such as hurricanes and tropical storms) as well as to destroy important ecosystems such as wetlands and mangroves. Rising sea level inundates low-lying lands, erodes shorelines, exacerbates flooding and increases the salinity of estuaries and aquifers.

A recent draft report prepared by the California Natural Resources Agency through the California Climate Action Team has used climate models and scenarios to project sea level rise between 2000 and 2100 that could range from about 0.6 meters up to almost 1.5 meters[2]. The range of projections for future sea level result from both modeling uncertainty and the strong interdependences between sea level rise, global temperature and the uncertainties about policy and social decisions that influence future greenhouse gas emissions. While it is certain that a continued or accelerated rise of sea level will increase the inundation of low-lying coastal lands and increase the vulnerability of coastal development to storms and extreme weather, it is not certain how high sea level will be in the future or the increased duration of exposure to higher water levels. Model improvement and improved understanding of climate and patterns and glacial dynamics can reduce some

[1] Climate Institute, 2007
[2] California Climate Change Center, 2009 (CEC-500-2009-14-D)

of the projection uncertainties, but the uncertainties that arise from human activities will remain, making it difficult to project a single trend for future sea level.

The State of California has initiated steps for the National Academy of Science (NAS) to develop relative sea level rise projections specific to California. The NAS study may clarify both the range of possible sea level rise and the appropriate approach to planning and designing for sea level rise. Until this study is completed, the Coastal Conservancy has adopted sea level of 0.6 meter by 2050 and 1.4 meters by 2100 for planning purposes. Rather than adopt a specific amount of sea level rise, a second approach for incorporation of sea level rise uncertainty into project planning and design is through an examination of a likely range of future sea level and analysis of the sensitivity of a project design to various likely sea level rise conditions. Such an analysis would determine if there is some "tipping point" at which a given design would rapidly become less stable, and to evaluate the consequences of crossing such a threshold. The sensitivity analysis would identify project limitations early in the planning process. Depending upon the design life of the development, the economic and technical feasibility of incorporating more proactive features into the design and the levels of acceptable risk, the analysis would help in determining the need for design flexibility and opportunities for adaptation to sea level higher than included in the initial design.

The analysis of a range of likely changes in future sea level provides some opportunity to adapt to changing sea level. Such evaluations provide some flexibility with regard to the uncertainty concerning sea level rise, providing an approach to analyze projects in the face of uncertainty that would not involve the imposition of mandatory design standards based upon future sea level elevations that may not be realized during the project life. Given the adaptive nature of this approach to hazards avoidance and minimization it will remain important to include new information on sea level trends as it is developed and reviewed by the scientific community. Accordingly, any adopted design or siting standards that mqy be applied to a development project should be re-examined periodically to ensure the standard is consistent with current estimates in the literature.

Ultimately coastal areas and coastal development will be affected by local water level and local water levels depend upon many factors besides global sea level. Local uplift and subsidence contribute to relative sea level; waves, tides, currents and atmospheric forcing contribute to short-term and seasonal variability in water level, tidal epochs, El Niño/Southern Oscillations, Pacific Decadal Oscillations, and Arctic Oscillations contribute to longer-term, annual to multi-decadal variability and the earth's orbital cycles (Milankovitch cycles) contribute to centennial to millennial variability.

Dana Point Harbor Sea Level Rise – Policies

8.6.5-1 Siting and design of new shoreline development anywhere in Dana Point Harbor and the siting and design of new or replacement shoreline protective devices shall take into account anticipated future changes in sea level, based on the best

available scientific information and projections or range of projections of future sea level.

8.6.5-2 Due to the uncertainties about future sea level rise, a range of likely and extreme rises in sea level shall be used in the planning phase to assess project sensitivity to future water levels, identify possible consequences to the development and the surrounding area if the anticipated sea level is exceeded, and determine the minimum acceptable amount of future sea level rise that can be used for design purposes.

8.6.5-3 OC Dana Point Harbor shall study the potential impacts of sea level rise and flooding of San Juan Creek on the existing or proposed structures along the seawall.

8.6.6 Coastal Erosion

Coastal erosion refers to the loss of sub-aerial landmass into the sea due to natural processes such as wave action, tidal current, wave currents or waves generated by storms, wind or even fast moving motor craft. Large storm-generated waves typically cause coastal erosion, which may take the form of long-term losses of sediment and rocks or merely in the temporary redistribution of coastal sediments.

The Dana Point Harbor is fully sheltered from the open ocean by almost 8,000 lineal feet of federal breakwater, thereby minimizing the natural effects of erosion associated with waves and tidal influences on the Harbor land areas.

Dana Point Harbor Coastal Erosion – Policies

8.6.6-1 Pursuant to the City of Dana Point, Local Implementation Plan, all private and public works construction projects are required, at a minimum, to implement and be protected by an effective combination of erosion and sediment controls and water and materials Best Management Practices.

8.6.6-2 Protect irreplaceable beaches and coastal bluffs from development and natural erosional processes, to provide for the replenishment of beach sands when feasible and to strive to increase public access to the Harbor, beaches and the coastline.

8.6.6-3 Encourage retention of natural vegetation and require re-vegetation of graded areas.

8.6.7 Geologic and Seismic

This Section sets forth the geotechnical policies for the LUP and includes technical information related to mitigation of geologic hazards and implementation of the Dana Point Harbor Revitalization Plan.

Geologic

Dana Point Harbor is located within the northwest-trending Peninsular Ranges in southern California. The Peninsular Ranges province is an elongated area characterized by parallel fault-bounded mountain ranges and intervening valleys. The province extends southward from the Transverse Ranges at the northern side of the Los Angeles basin southward into Mexico. The Dana Point Harbor also lies at the southernmost end of the San Joaquin Hills, which are a northwest trending topographically high area that extends southward from the City of Newport Beach to Dana Point.

The Harbor is a coastal reentrant (cove) protected by the Headlands at Dana Point. The protected cove owes its existence to differing resistance to wave erosion of the two bedrock formations exposed along a fault in the steep coastal bluff. Bedrock units include the Capistrano Formation and the San Onofre Breccia, both of which are exposed in the sea cliffs behind the Harbor, which are separated by the Dana Cove Fault. The weaker Capistrano Formation has been preferentially eroded, creating Dana Cove. More youthful sediments have been deposited in the Harbor, including colluvium, alluvium, beach deposits, landside debris, talus and artificial fill placed during the original construction of Harbor facilities in the 1970's.

Potential soil-related constraints and hazards shall be assessed by a geotechnical report that includes an evaluation of potentially expansive soils and recommendations for construction procedures and/or design criteria to minimize the effect of these soils on proposed development. Additionally, adherence to the Dana Point Harbor District Regulations Chapter 3, including compliance with Uniform Building Code requirements, as well as County of Orange Grading Manual and Building Codes will ensure public health and safety standards are achieved.

Dana Point Harbor Geologic – Policies

8.6.7-1 Geotechnical studies are required for developments that are proposed on or adjacent to coastal or inland bluff tops and where geological instability is suspected. (Coastal Act Section 30253)

8.6.7-2 Applications for Grading and Building Permits will be reviewed for adjacency to, threats from and impacts on geologic hazards arising from seismic events, tsunami run-up, landslides, beach and bluff erosion or other geologic hazards such as expansive soils and subsidence areas. In areas of known geologic hazards, a

geologic report shall be required. Require such reports be signed by a licensed Certified Engineering Geologist or Geotechnical Engineer and subject to review and approval by the City. Mitigation measures will be required where necessary.

8.6.7-3 New development shall:

a. Minimize risks to life and property in areas of high geologic, flood and fire hazard; and
b. Assure stability and structural integrity and neither create nor contribute significantly to erosion, geologic instability or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. (Coastal Act Section 30253)

8.6.7-4 A study of Life Safety and Evacuation shall be conducted for Planning Area 4 to ensure that adequate evacuation can occur should the Island bridge become incapacitated.

8.6.7-5 Creation of the Festival Plaza and Pedestrian Promenade along the waterfront's edge provides for an extended structural setback from the bulkhead area.

8.6.7-6 All new structures and the Commercial Core area parking deck will be supported with piles to provide adequate resistance to long-term settlement if recommended.

8.6.7-7 Foundation setback requirements will be implemented for proposed Harbor improvements as specified in the geotechnical report. Setback distances will reflect geologic and structural engineering evaluations of the site and recommendations included in the geotechnical report, subject to the review and approval of the County of Orange and the City.

8.6.7-8 Prior to the issuance of a grading permit, a geotechnical report shall be submitted to the County for approval and shall include the information and be in the form as required by the Orange County Grading Code and Manual.

8.6.7-9 If cranes and pile-driving equipment are required, adequate setbacks shall be observed from bulkhead areas to prevent failures due to increased lateral and surcharge loads.

8.6.7-10 Construction work preformed within public roadways or public properties adjacent to the Harbor will require compliance with specifications presented in the latest edition of Standard Specifications for Public Works Construction (the Greenbook).

8.6.7-11 Further investigation and detailed characterization of the existing fill conditions is required to identify the extent of the potential for liquefaction and include:

- Recommended new building setback distances from the quay wall ranging from 2 to 3 times the height of the bulkhead will for localized liquefaction and lateral spreading failure to several times the height of the revetment slope and bulkhead system for global seismic instability, to be considered during the planning and design phases of the project;
- Supporting proposed structures on deep foundations extending into bedrock;
- Stiffened floor slab designs;
- Total or partial removal of the potentially liquefiable soils and replacement with compacted fill; and
- Soil remediation and site improvement.

Seismic

Orange County, like most regions that border the Pacific Ocean is a region of high seismic activity and therefore is subject to potentially destructive earthquakes. Dana Point Harbor is located within the northwest-trending Peninsular Ranges in southern California. The Peninsular Ranges province is an elongated area characterized by parallel fault-bounded mountain ranges and intervening valleys. The Harbor is a coastal reentrant (cove) protected by the Headlands at Dana Point. The protected cove owes it existence to differing resistance to wave erosion of the two bedrock formations exposed along a fault in the steep coastal bluff. Bedrock units include the Capistrano Formation and the San Onofre Breccia, both of which are exposed in the sea cliffs behind the Harbor, which are separated by the Dana Cove Fault. The weaker Capistrano Formation has been preferentially eroded, creating Dana Cove. More youthful sediments have been deposited in the Harbor, including colluvium, alluvium, beach deposits, talus and artificial fill placed during the original construction of the Harbor in the 1970's.

A well-defined fault zone passes diagonally through the Harbor, directly under and nearly parallel to the fishing pier located in the western portion of the Harbor (PAs 5 and 8). The seaward projection is estimated to be approximately 250 ft. wide, consisting of sheared breccia and contorted siltstones and sandstones. No seismic activity has been reported along this fault, which has been classified as inactive. The closest active fault to the Harbor is the South Coast Offshore Zone of Deformation (likely the offshore connection between the Newport-Inglewood and Rose Canyon Faults) which is located approximately 3.4 miles to the southwest.

Seismic – Policies

8.6.7-12 Require applications for new development, where applicable, to include a geologic/soils and geotechnical study that identifies any geologic hazards affecting the proposed project site, any necessary mitigation measures and contains a

statement that the project site is suitable for the proposed development in a manner consistent with the County of Orange Grading and Excavation Code.

8.6.7-13 Conformance with the latest Uniform Building Code, California Building Code, or International Building Code and County Ordinances can be expected to satisfactorily mitigate the effect of seismic groundshaking. Conformance with applicable codes and ordinances shall occur in conjunction with the issuance of Building Permits in order to ensure that over excavation of soft, broken rock and clayey soils within sheared zones will be required where development is planned.

8.6.7-14 Engineering design for all structures shall be based on the probability that new structures will be subjected to strong ground motion during the lifetime of development. Construction plans shall be subject to the County review and shall include applicable standards, which address seismic design parameters.

8.6.7-15 Mitigation of earthquake ground shaking shall be incorporated into the design and construction in accordance with Uniform Building Code requirements and site-specific design.

8.6.8 Fire

The Orange County Fire Authority is responsible for providing fire protection services to Dana Point Harbor and the entire City of Dana Point. All existing structures and new development will be required to meet applicable provisions of the County and the Uniform Fire Code. New buildings and the planned dry stack boat storage facility will be equipped if required by Code with automatic sprinklers or other fire suppression systems and required to demonstrate that adequate water distribution facilities are in place to meet fire-flow requirements.

Dana Point Harbor Fire – Policies

8.6.8-1 Establish building code, setback, site design and landscaping requirements that assure adequate fire protection to minimize risks to life and property. (Coastal Act Section 30253)

8.6.8-2 Dana Point Harbor is not located within the very high fire hazard severity zone per the OCFA maps. However, exposed building construction shall meet all requirements for exposed sides, per OCFA requirements. Additionally, automatic sprinklers shall be provided in all applicable structures, per OCFA requirements.

8.6.8-3 OC Dana Point Harbor shall confirm the following items are included as part of development design:

- All applicable building plans shall indicate by note that the interior fire sprinkler system is required for the structure(s). Plans for the fire sprinkler systems shall be submitted for review and approval by the Fire Chief.
- A supervised fire alarm system with an enunciator, per the requirements of the California Fire Code shall be installed in an accessible location.
- Access to and around all structures shall meet the OCFA and California Fire Code requirements.
- A water supply system to supply fire hydrants and automatic fire sprinkler systems shall be installed.
- Turning radii and access in and around the Harbor and other facilities shall be designed to accommodate large fire department vehicles and their weight.
- Emergency access shall be maintained during construction.
- All service roads and fire lanes, as determined by the Fire Chief shall be posted and marked accordingly.

8.7 Infrastructure and Utility Improvements

Plans for new development include the relocation and/or replacement of a number of the existing wet and dry utility systems (water, sewer, natural gas, electrical, telephone, cable, etc.). All new utility systems will be designed, located and sized according to regulatory and utility service provider standards. Improvements include various infrastructure and utility elements, signage and landscape improvements to enhance the Harbor's appearance and provide adequate infrastructure. These elements that are planned include:

Streets

- *Planning Area 1*: Improvements to Puerto Place, include widening the existing western right-of-way (ROW), constructing new entries to the Marine Services Commercial area and potential installation of a traffic signal at the intersection of Dana Point Harbor Drive and Puerto Place (subject to future traffic study and signal warrants).
- *Planning Area 2*: Realignment of the terminus of the Street of the Golden Lantern, including construction of a split-level ramp providing parking deck access into the Commercial Core area from the Dana Point Harbor Drive intersection; constructing traffic circle links on both levels of the parking deck to the Festival Plaza; and constructing a left-turn pocket and additional exit lane from the parking deck.
- *Planning Area 4*: Future improvements to the Dana Drive turn-arounds on the Island to improve vehicle circulation and to provide additional public parking opportunities.

- *Planning Area 5*: Future modification of the turnaround on Dana Point Harbor Drive adjacent to OC Sailing and Events Center to provide better access for large vehicles (i.e., buses and emergency vehicles).

Harbor-wide Utilities, Drainage, Lighting, and Signage

- Upgraded utility capacities to serve the proposed improvement areas, including upgrading storm drain facilities;
- Improved lighting on streets, in parking areas and pedestrian walkways;
- Improved commercial, directional and public information signage; and
- In Planning Area 1 – replacement of an existing 18-inch storm drain and outlet structure with a larger pipe and new outlet structure.

Quay Wall–Slope Panel and Bulkhead

Planning Areas 8, 9, 10, 11 and 12:

- Repair and partial replacement of the existing quay wall slope panels by filling voids and gaps and by placing a tie-back system or anchor rods where needed to provide improved longevity and seismic safety; and
- Replace degraded rock revetment as needed.

Harbor-wide Walkways and Landscaping Improvements

- Improved pedestrian walkways, including new paving, signage and access ramps that comply with Americans with Disabilities Act (ADA) requirements; and
- New landscaping and irrigation systems in the Commercial Core area and enhancement of existing landscaping throughout the Harbor as new development projects are implemented over time.

8.7.1 Dana Point Harbor Infrastructure and Utility – Policies

8.7.1-1 Require new development to contribute its share of the cost of providing necessary public services and facilities through equitable development fees and exactions. (Coastal Act Section 30250)

8.7.1-2 New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the certified Local Coastal Program. Special districts which include the coastal zone shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with the City of Dana Point certified Local Coastal Program. (Coastal Act Section 30254)

8.7.1-3 Work closely with local-serving water and sewer districts in determining future area needs. (Coastal Act Sections 30250, 30255, 30254)

8.7.1-4 Require the use of native and non-native, non-invasive drought tolerant landscaping to reduce overall water use.

8.7.1-5 Support public education programs for water conservation.

8.7.1-6 Support the appropriate regional agencies in developing and utilizing reclaimed water facilities.

8.7.1-7 Support the efforts of water and sewer agencies to encourage recycling of wastes and proper disposal of household wastes and waste oil.

8.7.1-8 Evaluate the varying levels of service provided by the water and sewer districts serving the City and support increased coordination among these districts in order to provide consistent service levels.

8.7.1-9 Identify local storm drainage deficiencies and develop a capital improvements program for the correction and replacement of aging or inadequate drainage system components. (Coastal Act Sections 30233, 30235, 30236, 30253)

8.7.1-10 Work with the Orange County Flood Control District in ensuring the adequacy of regional storm drainage facilities. (Coastal Act Sections 30235, 30236, 30253)

8.7.1-11 Periodically evaluate services and service criteria to ensure the City has adequate police, fire and emergency medical services. (Coastal Act Section 30254)

8.7.1-12 Coordinate with the Orange County Sheriff's Department and Orange County Fire Authority for the continued provision of adequate law enforcement and fire protection.

8.7.1-13 Existing aboveground utilities will be removed and placed underground wherever and whenever possible.

8.7.1-14 OC Dana Point Harbor shall prepare and process encroachment permits for any project work (e.g., street widening, emergency access improvements, storm drain

construction, street connections, etc.) occurring in any City of Dana Point right-of-way.

8.7.1-15 The County shall install all underground traffic signal conduits (e.g., signals, phones, power, loop detectors, etc.) needed for future traffic signal construction and for future interconnection with adjacent intersections.

8.7.1-16 New utilities will be located underground to the extent feasible as part of new development projects. Utility undergrounding activities will be coordinated with the utility providers to ensure that service to adjoining utility customers is not interrupted.

8.8 Paleontological Cultural Resources

The Paleontology Literature and Records Review obtained from the San Bernardino County Museum indicate that the Harbor area is underlain by sediments of the Capistrano Formation and marine terrace deposits. The Capistrano Formation has yielded fossil remains of foraminifera, echinoids and marine vertebrates, including sharks and whales. The marine terrace deposits have yielded marine invertebrate fossils (mollusks, crustaceans, and echinoids) and marine vertebrate fossils (sharks, rays, and bony fish).

The historical property data file at the South Central Coastal Information Center at California State University, Fullerton, currently lists 28 properties in the vicinity of the City of Dana Point that have been evaluated for their potential historical significance. Four archaeological sites have been documented within one-half mile of Dana Point Harbor, however none of the sites are located in or directly adjacent to the existing or proposed Harbor facilities.

The Dana Point Harbor area is part of the territory occupied by the Juaneňo Native American group when the Spanish arrived in A.D. 1769. Ethnographic descriptions of the Juaneňo are often given in terms of their neighbors to the south, the Luiseňo, but also point to a separate ethnic identify.

Paleontological and Archaeological Resource – Policies

8.8.1-1 Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required. (Coastal Act Section 30244)

8.8.1-2 Prior to the issuance of any Grading Permit, OC Dana Point Harbor shall ensure that a County-certified archaeologist has been retained to observe grading activities and preserve in place and/or salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance and shall establish in cooperation with the applicant, procedures for temporarily halting or redirecting

work to permit the sampling, identification and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with OC Dana Point Harbor for exploration and/or salvage and/or preservation in place.

8.8.1-3 If human remains are encountered, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made a determination of the origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner shall notify the Native American Heritage Commission (NAHC) which will determine and notify a Most Likely Descendent (MLD). With the permission of the owner of the land or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend preservation in place, scientific removal and non-destructive analysis of human remains and items associated with Native American burials.

8.9 Air Quality

Dana Point Harbor and the City of Dana Point are located in the South Coast Air Basin, a 6,600-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino Counties, in addition to the San Gorgonio Pass area of Riverside County. The Basins terrain and geographical location, a coastal plain with connecting broad valleys and low hills are key variables in determining its distinctive climate.

The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences. Factors such as wind, sunlight, temperature, humidity, rainfall and topography all affect the accumulation and/or dispersion of air pollutants throughout the Basin.

Regulatory oversight for air quality in the South Coast Air Basin is overseen by the South Coast Air Quality Management District (SCAQMD) at the regional level, the California Air Resources Board (CARB) at the state level and the U.S. Environmental Protection Agency (EPA) Region IX at the federal level.

As of 2009, the Basin has been designated as in attainment for nitrogen oxides (NO_x) and sulfur oxides (SO_x) for both state and federal standards. The Basin is designated non-attainment for ozone (O_3) and particulate matter (PM_{10} and $PM_{2.5}$) under both state and federal standards. The Basin is designated as non-attainment for carbon monoxide (CO) under just the federal standard. Since the Dana Point Harbor is an existing facility and future improvements remain consistent with County and City of Dana Point long-term planning policies, measures will be incorporated into the design and construction of development

projects in the Harbor to reduce the level of air pollutants generated by short-term construction and ongoing operation of the facilities.

Dana Point Harbor Air Quality – Policies

8.9.1-1 Encourage patterns of development necessary to minimize air pollution and vehicle miles traveled. (Coastal Act Section 30250)

8.9.1-2 Provide commercial areas that are conducive to pedestrian and bicycle circulation.

8.9.1-3 Encourage bicycle/trail systems to reduce air pollution.

8.9.1-4 Assure the development of shuttle systems, train or transit facilities, to help reduce vehicular trips and air pollution.

8.9.1-5 Should asbestos be determined to be present within the existing structures, the project shall comply with SCAQMD Rule 1403, Asbestos Emission from Demolition/ Renovation Activities, during the demolition process.

8.9.1-6 Lead-based paint removal shall be performed in accordance with California Code of Regulations Title 8, Section 1532.1, which provides for exposure limits, exposure monitoring and mandates good working practices by workers exposed to lead.

8.9.1-7 All finishing products used on-site shall meet applicable SCAQMD regulations for solvent content, as required by SCAQMD Rule 1102 and 1171.

8.9.1-8 To reduce long-term operation emissions from area sources (by implementing energy conservation measures and by reducing motor vehicle emissions) the following measures shall be implemented:

- Install energy-efficient street lighting on the site; and
- Landscape with native or non-invasive and drought-tolerant species to reduce water consumption and provide passive solar benefits, where feasible.

8.9.1-9 The design of the dry-stack boat storage building includes covered areas for boat maintenance, where dust collection systems may be used to reduce the amount of particulates released into the atmosphere.

8.9.1-10 Reduction of vehicle trips is achieved by implementing the Transportation Management Plan, including:

- Shuttle service to off-site (remote) parking areas when necessary;
- Shuttle service to regional visitor attractions and for hotel guests;

- Seasonal water taxi service;
- Visitor boat slips and dingy docks located near restaurants and retail areas; and
- Phased construction of new development will minimize the size of areas subject to disruption from construction activities.

8.9.1-11 In order to reduce operational energy usage and reduce energy production air emissions, Harbor projects are required at a minimum to comply with Title 24 of the California Code of Regulations established by the California Energy Commission regarding energy conservation standards.

9.0 Environmental Review

The protection of coastal resources and protection from coastal hazards requires that applications for new development to undergo appropriate environmental review. In most cases, the County of Orange (County) is the Lead Agency under the California Environmental Quality Act (CEQA) and is responsible for preparation and/or review of all environmental analysis conducted for projects located in Dana Point Harbor. CEQA requires the state to review the environmental impacts of projects that require state or local government approval. Additionally, CEQA mandates the appropriate level of environmental analysis be conducted to review existing conditions, analyze potential environmental impacts and suggest feasible mitigation measures and/or alternatives to reduce potentially significant effects, are considered at the time of discretionary approval of a project or series of projects. In the event that the responsible agency for a project's approval identifies that the project may result in "significant adverse effects" and that feasible alternatives or feasible mitigation measures are not available to substantially lessen such effects, the approval must be withheld.

The County as Lead Agency, landowner and project proponent for the Dana Point Harbor Revitalization Plan has the principal responsibility for approving and implementing the Revitalization Plan. The County was designated over 30 years ago by the Tidelands Act as the trustee for the Harbor for the people of the State of California. The County is therefore acting as Lead Agency in preparation of all environmental documentation associated with the implementation of the Revitalization Plan to address the future use and operation of the Harbor and it's facilities. The County, as Lead Agency will use these environmental determinations for subsequent discretionary and ministerial approvals, such as grading and building permits.

It is the intention of the County that the City of Dana Point, the California Coastal Commission and other Responsible Agencies will use the environmental documentation prepared for the implementation of the Dana Point Harbor Revitalization Plan improvements (land and waterside) for discretionary permits or approvals under their respective jurisdictions (for the City of Dana Point, the required Local Coastal Program Amendment and subsequent issuance of Coastal Development Permits for landside areas of the Harbor; the California Coastal Commission for issuance of Coastal Development Permits for waterside areas; and other Trustee Agencies, such as the State Lands Commission and California Department of Fish and Game for other project-related permits and approvals).

Further, to ensure consistency with the resource protection policies of the Dana Point Harbor Revitalization Plan and District Regulations, applications for new development subject to Coastal Development Permit requirements shall be reviewed by qualified County and City staff, contracted employee/consultant and/or advisory committee in accordance with the CEQA requirements and the recommendations and/or findings considered as part of the project approval process.

Dana Point Harbor Environmental – Policies

9.1-1 Consider the environmental impacts of development decisions. (Coastal Act Sections 30240, 30241, 30242, 30243 & 30244)

9.1-2 Review all new development proposals subject to California Environmental Quality Act (CEQA) and Coastal Development Permit requirements in accordance with the principles, objectives and criteria contained in CEQA, the State CEQA Guidelines, those contained in the Dana Point Harbor Revitalization Plan and District Regulations and any environmental review guidelines adopted by the County of Orange and/or City of Dana Point.

9.1-3 Integrate CEQA procedures into the review procedures for all new development in the Coastal Zone.

9.1-4 Require a qualified County and/or City staff member, advisory committee designated by the County and/or City or a consultant approved by and under the supervision of the County and/or City to review all environmental documentation submitted as part of an application for new development and provide recommendations to the appropriate decision-making official or body.

9.1-5 Require the County and/or City staff member(s) and/or contracted employee(s) responsible for reviewing site specific surveys and analyses to have technical expertise in biological resources, as appropriate for the resource issues of concern (e.g., marine/coastal, arboreal habitat, water quality, etc.) and be knowledgeable in the operational practices of the County and City of Dana Point.

9.1-6 Where development is proposed within or adjacent to a sensitive resource or ESHA (if delineated), require the County and/or City staff member(s) and/or contracted employee(s) to consider the individual and cumulative impacts of the development, define the least environmentally damaging alternative and recommend modifications or mitigation measures to avoid or minimize the anticipated impacts.

9.1-7 Where development is proposed within or adjacent to a sensitive resource or ESHA (if delineated), require the County and/or City staff member(s) and/or contracted employee(s) to include the following in any recommendations of approval: an identification of the preferred project alternative, required modifications or mitigation measures necessary to ensure conformance with the Dana Point Harbor Revitalization Plan and District Regulations. The decision making body (Director, OC Dana Point Harbor, City of Dana Point Community Development Director, Planning Commission or City Council) shall make findings relative to the project's conformance to the recommendations of the County and/or City staff member(s) and/or contracted employee(s).

9.1-8 Coordinate with the California Department of Fish and Game, U.S. Fish and Wildlife Service, National Marine Fisheries Service and other identified resource management agencies, as applicable, in the review of development applications in order to ensure that impacts to sensitive resources or an ESHA (if delineated), including rare, threatened or endangered species are avoided or minimized such that the sensitive resource is not significantly degraded, habitat values are not significantly disrupted and the biological productivity and quality of coastal waters is preserved.

9.1-9 Require applications for new development, where applicable, to include a geologic/soils/geotechnical study that identifies any geologic hazards affecting the proposed project site, any necessary mitigation measures and contains statements that the project site is suitable for the proposed development and that the development will be safe from geologic hazard for its economic life. For Coastal Development Permits including coastal bluff areas (for public works projects, including maintenance of pedestrian walkways, drainage improvements, flood control improvements and other infrastructure and/or utilities permitted in Planning Area 8), such reports shall include a slope stability analyses and estimates of the long-term bluff stability affecting the development proposal. Reports are to be signed by an appropriately licensed professional and subject to review and approval by a qualified County and/or City staff member(s) and/or contracted employee(s).