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Staff report prepared by:	Mike Watson
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APPEAL STAFF REPORT
COURT REMAND DE NOVO HEARING

Appeal number.....**A-3-SNC-98-114, Monterey Bay Shores Ecoresort**

Applicant.....Security National Guaranty Inc. (SNG)

Project location .....Northern most parcel of Sand City seaward of Highway One, immediately downcoast of Fort Ord Dunes State Park in the City of Sand City, Monterey County.

Project description.....Approximately 360,000 square foot 341 unit mixed-use residential and visitor serving development including 161 hotel rooms, 180 condominium units (92 residential, 46 visitor-serving residential, and 42 visitor-serving units), restaurant, conference center, spa, 3 swimming pools, and surface and underground parking (for 841 vehicles). Project includes 693,000 cubic yards of grading and 417,318 cubic yards of sand disposal, 14 acres of dune habitat restoration, an additional 9 acres of green landscaping and planted roofs, public access trails and parking, and necessary utility extensions and infrastructure.

File documents.....City of Sand City Local Coastal Program (LCP); City of Sand City LCP amendments 2-97 and 1-93; Supplemental Documents, Monterey Bay Shores Ecoresort (August 13, 2008); Vesting Tentative Map (revised January 27, 2009); Revised Draft Addendum to the Final Environmental Impact Report (October 2008); Habitat Protection Plan for the Monterey Bay Shores Ecoresort Project (October 2008); Zander and Associates site surveys for Western snowy plover (May, 2009); Haro, Kasunich and Associates Geotechnical Reports (October 2000, December 2003, September 30, 2008, and February 3, 2009); Moffat and Nichols Shoreline Erosion Study (1989); Fehr and Peers Focused Transportation Impact Analysis for the Proposed Monterey Bay Shores Resort (August 2008); A-3-SNC-98-114 administrative record.

Staff recommendation ...**Denial**

A.Staff Recommendation

1. Summary of Staff Recommendation

The Applicant proposes to develop a 341 unit mixed-use residential and visitor serving resort facility seaward of Highway One in the City of Sand City in Monterey County. The project includes 161 hotel rooms, 180 condominium units (92 residential, 46 visitor-serving residential, and 42 visitor-serving units), a restaurant, conference center, spa, 3 swimming pools, and surface and underground parking (for 841 vehicles). It also includes 695,000 cubic yards of grading and 417,318 cubic yards of sand disposal, 14 acres of dune habitat restoration, 9 acres of landscaping that includes vegetated roofs, public access trails and parking, and necessary utility extensions and infrastructure. The project is revised from a project previously denied by the Commission in 2000. Following that action, the Applicant sued the Commission, and in 2008 the court of appeals remanded the project to the Commission for re-hearing consistent with the court's finding that the Sand City LCP does not identify this site as an environmentally sensitive habitat area (ESHA).

The applicant has made substantial changes to the project originally denied by the Commission. Nonetheless, the project remains fundamentally inconsistent with the City of Sand City LCP. **Staff therefore recommends that the Commission deny the proposed project.**

Inadequate Water Supply

The LCP requires that new development clearly demonstrate that adequate water is available to serve the development. Any water supply also must be consistent with the Monterey Peninsula Water Management District (MPWMD allocation to Sand City, or requires review and approval of private wells by the MPWMD. As proposed, water for the project would be provided by the California American Water Company (Cal-Am, the water purveyor for this area). Cal-Am obtains its water from the Seaside groundwater basin and the Carmel River, both of which are significantly over utilized. The Seaside Basin has recently been adjudicated, and the court has imposed a physical solution to address the significant groundwater overdraft and saltwater intrusion. The applicant has been allocated 149 acre feet of private well water rights pursuant to this order, subject to various conditions, as well as the continuing authority of the MPWMD. With respect to the Carmel River, Cal-Am has been under an order from the State Water Resources Control Board (SWRCB) since 1995 to significantly reduce illegal diversions from the river that impact riparian and fish and wildlife resources. The Applicant estimates that the proposed project would require roughly 71 acre-feet per year (ac-ft/yr) of water from these sources. Earlier this year, MPWMD denied the Applicant and Cal-Am's joint application for a water permit allowing Cal-Am to serve the proposed project with additional new water extractions using SNG's private well water rights. The District found that approval of water distribution permit could not be supported by the evidence in the record, including because such water could come from the Carmel

River when that is prohibited by SWRCB, and that the resulting regulatory cut-backs on Cal-Am's production would have significant adverse impacts on these coastal resources that had not been analyzed under CEQA. As a result, the Applicant cannot demonstrate that there is adequate and available water to serve the project, as required by the LCP. Without such demonstration, the project must be denied as inconsistent with the LCP's water supply provisions.

Safety From Coastal Hazards Not Assured

The LCP requires that development be sited and designed to avoid hazards, and requires that it be sited to ensure stability and safety over its economic lifetime. It is clear that the site is subject to significant coastal hazards including but not limited to tsunami, wave run-up/flooding, and shoreline erosion/retreat. The project site consists entirely of highly erodible dune sands, and presents some of the highest shoreline erosion rates in the state. The Applicant contends that hazards have been sufficiently addressed, and that the proposed project has been sited and designed to avoid them as required by the LCP. However, analysis shows that future shoreline hazards for the site have been underestimated by the Applicant, including those related to shoreline erosion/retreat and sea level rise. In addition, the Applicant has not identified the project's economic lifetime; however, assuming a 50-year economic lifetime for the project, which is the minimum analysis required by the LCP, it is clear that portions of the project as proposed would be threatened by coastal erosion in scenarios based on worst case estimates of bluff retreat. At longer economic lifetimes, such as 75 or 100 years, most of the site is unsuitable for development. In short, the proposed project has not adequately addressed potential higher risk coastal erosion scenarios, particularly when taking into account reasonable estimates for its economic life, and it cannot be assured that the project has been adequately sited and designed to address hazards. Without such assurance, the project must be denied as inconsistent with the LCP's hazards provisions.

Significant Public Views Not Protected

The LCP requires that development be sited and designed to protect significant public views, and prohibits impairment of certain specifically identified ocean views. In this case, the development would be sited between Highway One and the Monterey Bay. As proposed, the project would block existing blue water ocean views and other views across the site (taking in dune forms and the backdrop of the Monterey peninsula in the background) from Highway One and the Monterey Peninsula Recreational Trail. In particular, the project proposes to build a 108-foot high berm that would screen public views of the development, but that would also interfere with a significant blue water view and views of the Monterey peninsula from Highway One. Although some additional views from Highway One, the recreation trail, trails at Fort Ord Dunes State Park, and viewpoints on the Monterey peninsula looking back across the site, would not be blocked entirely by the proposed development, they would be significantly degraded if the project were approved as it is proposed. The project is therefore inconsistent with the LCP public view protection provisions.

Natural Resources Not Protected

The LCP requires that certain dunes and other habitats be protected and restored. The court of appeals found that the site cannot be considered ESHA under the LCP. However, the order remanding the development application to the Commission does not limit the Commission's required consideration of other LCP provisions that specifically address the protection of dune landforms and natural resources, including restoration requirements. The dunes located at the subject site are degraded in places, largely due to historic sand mining that ceased in 1986, but they provide habitat for a variety of species, some of them listed species under the federal and state endangered species acts, and are being recolonized by native dune species. The LCP specifically prohibits grading of a particularly tall dune feature on the site except for restoration purposes, and otherwise requires protection of natural resources. The proposed development would cut through the protected dune area and re-contour this entire dune inconsistent with the LCP. It would also require 693,000 cubic yards of dune grading to create the space into which the development would be constructed, inconsistent with protection of natural resources. More than 417,000 cubic yards of sand would be hauled offsite. The project is inconsistent with the LCP's dune and natural resource protection provisions.

Other Issues Not Addressed

The LCP requires that there be adequate circulation/parking as part of new development projects and that the project not contribute to traffic congestion. In this case, the development would add traffic to already congested Highway One, and to already congested local roads and intersections. As proposed, there is both inadequate circulation capacity available at certain times to satisfy the proposed project needs, and the project would contribute traffic to this mix thus creating additional traffic congestion. Adequate mitigation for this situation has not been proposed. The project is therefore inconsistent with the LCP's traffic and circulation provisions.

The LCP and Coastal Act require that recreational public access be maximized. In this case, the proposed project has addressed many of the access requirements of the LCP, including providing vertical and lateral access dedications. However, certain details have not been specified, and maximum public access is not assured. These issues could likely be addressed through a conditional approval, were the project otherwise approvable.

Conclusion

The proposed project is inconsistent with a variety of LCP requirements. It lacks adequate water supply, would not avoid or minimize hazards over its lifetime, would impair significant public views, would not protect dune landforms and natural resources, and would exacerbate Highway One traffic problems. It also has not assured that maximum public access will be provided. Although public access issues could likely be addressed through a conditional approval, the project changes necessary to address these other inconsistencies are too fundamental to be addressed by the Commission through conditions of approval; therefore, staff is recommending that the project be denied. In order to address LCP requirements and the various resource constraints on the site, a much smaller project would need to be considered that better addressed the protection of the mapped dune landform on the site, minimized impacts to natural

resources, such as the Monterey spineflower and Western snowy plover, avoided and minimized significant impacts to important public views, particularly blue water views from Highway One across to the Monterey Peninsula; addressed traffic mitigation, and better addressed the significant shoreline hazards at the project site. Commission staff remains available to work with the Applicant and the City on such a project in the future.

Thus, staff recommends that the Commission deny a coastal development permit for the proposed development on the grounds that the proposed project is inconsistent with the Sand City certified LCP and the access and recreation policies of the Coastal Act. The motion and resolution to implement this recommendation are found directly below.

2. Staff Recommendation on CDP Application

Staff recommends that the Commission, after public hearing, **deny** the CDP for the proposed development.

Motion. I move that the Commission approve Coastal Development Permit Number A-3-SNC-98-114 for the development as proposed by the Applicant.

Staff Recommendation of Denial. Staff recommends a **NO** vote. Following the staff recommendation of a "no" vote will result in denial of the coastal development permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Deny a Coastal Development Permit. The Commission hereby denies a coastal development permit for the proposed development on the grounds that the development will not conform with the policies of the City of Sand City Local Coastal Program, and that it is located between the sea and the first public road nearest the shoreline and it will not conform with the access and recreation policies of Chapter 3 of the Coastal Act. Approval of the permit would not comply with the California Environmental Quality Act because there are feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

Report Contents

Click on the links to go to the exhibits.

Exhibit 20c: 100-Year Shoreline Erosion and Setback Figure
Exhibit 21: Visual simulations
Exhibit 22: Views from Highway One (Photographs)
Exhibit 23: Highway One View Cones
Exhibit 24: Writ of Mandamus
Exhibit 25: Dune Landform Approximation
Exhibit 26: Access Plan, October, 2008
Exhibit 27: EMC Botanical Survey Update dated May 12, 2008
Exhibit 28: Habitat Protection Plan, October 2008
Exhibit 29: USFWS Letter to Applicant dated November 12, 2008
Exhibit 30: PRBO Western Snowy Plover Surveys (July 2008)
Exhibit 31: City Resolution on Addendum to FEIR
Exhibit 32: Correspondence Received from Other Interested Parties
Exhibit 33: Coastal Commissioner Ex Parte Disclosures

B.Findings and Declarations

The Commission finds and declares as follows:

1. Proposed Development

A. Project Location

The proposed project is located in the sand dunes along the shoreline in the southern Monterey Bay area near the bottom of the Monterey Bay crescent where it meets the Monterey peninsula area (and the Cities of Monterey, Pacific Grove, etc.). The dunes at the site are part of the larger southern Monterey Bay dune complex extending roughly along the shoreline from Monterey Harbor to the Salinas River, a distance of approximately 13 miles that is made up primarily of undeveloped dune, much of it in public park and conservation ownership.

The 39 acre project site[1] extends along approximately 1,500 linear feet of this shoreline in the dunes between Highway One (and the Monterey Bay public recreational access trail) and the Monterey Bay, between Fort Ord Dunes State Park (upcoast) and Monterey Peninsula Regional Park District dune parkland (downcoast). The site is located immediately seaward of the Fremont Street overpass from southbound Highway One at the upcoast and seaward edge of the City of Sand City (the City limit line

[1] Seven acres of which is located below the mean high tide (MHT) line.

runs along the State Park boundary[2]).

A portion of the site was mined for sand many years ago (mining ceased in 1986), and as a result the site is sometimes referred to as "the Lonestar site," in reference to the former sand mine operator. Sandy elevations at the site undulate dramatically, and the site includes a very large dune form nearest the Highway at the downcoast edge of the site,[3] another large dune feature about midway along the property's Highway One frontage, a large depression just seaward and upcoast of the two taller dune features,[4] and a relatively flat area on the upcoast edge that drops down in elevation at the property boundary with the State Park. See Exhibit 1 for project location maps and Exhibit 2 for site photos.

The project site has multiple LUP and IP land use designations, including visitor-serving commercial, visitor-serving residential (medium density), medium density residential, and public recreation. In general, the applicable permitted uses would allow for development of a hotel (up to 375 units), residential time share units (100 units maximum), residential units (175 units maximum), and parks and recreational facilities. Local Coastal Program amendment 2-97 approved by the Commission in June 1997 provided that these uses may be mixed on the site. That is, there can be residential uses on a portion of the property identified for visitor-serving commercial and vice versa. See land use designations noted in Exhibit 3.

B. Project Description

The proposed project is an approximately 360,000 square-foot mixed-use residential and visitor serving project including 161 hotel rooms, 180 condominium units (92 residential, 46 visitor-serving residential, and 42 visitor-serving units), restaurant, conference center, spa, 3 swimming pools, and surface and underground parking (for 841 vehicles). The project is designed to be set into the dunes. Thus, the project includes approximately 693,000 cubic yards of grading to both create the space within which the majority of the development would be constructed (i.e., the main building portion of the site would be constructed on a pad that is 30 to 50 feet lower than the existing sand level), and to backfill around such area (including on top of certain building structures) following construction. The excavation and resultant backfilling around and on top of buildings would result in approximately 417,318 cubic yards of excess sand that the Applicant proposes to export to private parties for commercial and private use, or have taken to the dump. The Applicant has also indicated a willingness to allow the sand to be used for sand replenishment if a suitable partner could be found for such effort. The project also includes related utility extensions and infrastructure, and approximately 14 acres of dune habitat restoration and another 9 acres of green landscaping and vegetated roofs (see Exhibits 4 - 8 for project site plans, elevations, program areas, and rendering).

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[2] The Applicant also owns an adjacent property located near the northeast corner of the site between the subject site and the Fort Ord Dunes State Park, and nearest the highway (APN 011-501-004). This adjacent property is located outside of the City and in unincorporated Monterey County.

[3] At 160 feet in elevation at its crest, this tall dune feature on the site represents the tallest dune in the southern Monterey Bay dune complex.

[4] The depression area measures some 3.5 acres, and is the primary location of the former sand mining operation.

Primary Structures

The main structures at the site would provide approximately 360,000 square-feet of interior space arranged in an undulating and curvilinear pattern along the main dune excavation area and extending laterally (along the shoreline) nearly across the whole site. These structures would extend from a finished floor elevation of 22 feet above NGVD[5] at the parking garage to a maximum height of 102 feet above NGVD at the top floors of the hotel and residential condominiums, and a maximum height overall of up to 112 feet NGVD for the tallest elements of the development (i.e., vertical circulation, daylight and ventilation towers). All told, the structure would extend 90 feet from bottom finished floor to its maximum elevation. The foundation for the structures would consist of a series of concrete caissons connected by grade beams. Most of the roofs of the structures would be covered in sand and planted with dune species.

The main structures themselves vary between six and eight stories in height, and have a maximum height of approximately 80 feet above finished floor. These structures would include a 120-seat, 6,000 square foot restaurant and bar, three pools and courtyards totaling 30,000 square feet, a 10,000 square foot conference center, and a 40,000 square foot wellness spa. There is also approximately 27,000 square feet in related development including kitchen space, retail, and service/storage area. Almost all of the parking to serve the development, 762 spaces, would be located underground in parking garages that would be beneath the structures described above. Another 79 spaces would be provided in surface parking lots, the bulk of which would be provided through 70 proposed public parking spaces that would be located on either side of the proposed access roadway at the northeast corner of the site nearest Highway One.[6]

Primary Uses

The project includes 161 hotel units that would be clustered along the downcoast portion of the development arranged around a courtyard. There would also be 88 visitor-serving residential condominium units clustered just inland of the hotel units and on either side of the main entry. Of these condominium units, 42 units are identified as “visitor-serving condominium units” and 46 units are identified as “visitor-serving residential condominium units”. The 42 visitor-serving condominium units would be vacation ownership resort units that would be available to club members through purchase of a membership, and available to the public when not occupied by a club member. The 46 visitor-serving residential condominium units would be individually owned and available to the general public on a rental basis. Both types of units would be subject to a requirement that owners could only stay in their units for a maximum of 29 consecutive days and 84 total days per year. The project also includes 92

[5] NGVD, or National Geodetic Vertical Datum, is not to be confused with Mean Sea Level (MSL). MSL is the local mean sea level whereas NGVD is a fixed datum adopted as a standard reference for heights (where MSL was held fixed as observed at 26 stations in the U.S. and Canada). NGVD for the Monterey Bay area was adjusted in 1961 and revised in 1986. For the Monterey Bay area, MSL is +0.03 feet NGVD, or about a third of an inch above NGVD. NGVD is generally used in this report to describe elevations.

[6] The Applicant’s submitted plans are internally inconsistent inasmuch as the parking calculations identify 70 public access parking spaces in this area, while the proposed site plans show 71 spaces in this area. The difference is not significant, and the 70-space number is used in this report.

traditional residential condominium units which make up the majority of the upcoast half of the project. All told, the proposed project includes approximately 341 units of varying types (see Exhibit 6 for a graphic depiction of proposed program areas).[7]

The project also includes a spa that would be located in the center and seaward portion of the site just past the main entry (40,000 square feet), and a restaurant, meeting rooms, conference space, retail sales, reception, and related amenities clustered near the main entryway at the center of the development (22,000 square feet).

See site plans, elevations, and space allocations in Exhibits 4, 6, and 7.

Subdivision

The project includes subdivision of the site from a single 39.04 acre parcel into 2 separate parcels, a 22.38 acre parcel (Parcel 1) and a 16.66-acre[8] parcel (Parcel 2). Almost all of the proposed development would be located on Parcel 1, and Parcel 2 would be placed in conservation and public access easements.[9] Parcel 1 would also be further subdivided for the condominium ownership units, for which there are two separate airspace condominium subdivision regimes planned. The 88 visitor-serving residential units would share common facilities with the hotel courtyard and pool area (32,310 square feet), parking, and other services. The 92 residential units would have a common interest in the northern courtyard, pool, and botanical garden (53,644 square feet), as well as other common facilities such as the garage and entryway. Thus, following subdivision, Parcel 1 would be divided into 180 condominium airspace units, 2 common area parcels, and 1 parcel containing the hotel, retail space, and related visitor-serving amenities. When combined with Parcel 2, the overall subdivision thus results in a total of 184 parcels overall at the site. See Exhibit 6.

Roadways and Paving

Access to the site would be gained by extending Sand Dunes Drive from its current terminus at the southeastern edge of the property near the Fremont Boulevard off-ramp. A gatehouse and gate would be constructed at this location to restrict access to the site. The new road would then extend along the eastern (inland) edge of the property to the northern end of the property, and then would extend perpendicularly toward the ocean to a turn around and delivery access point near the most upcoast building structures. The main entryway to the project would be perpendicular from the new portion of Sand Dunes Drive roughly in the middle of the site to an entry turn-around and underground garage

[7] The project is also described in terms of "modules", each of which appear to be the same size. The Applicant provides module counts by type that differ from the unit counts in some cases. For example, although the 161 hotel units are made up of 161 modules, the 88 visitor-serving condominium and residential condominium units are made up of 166 modules, and the 92 residential units are made up of 284 modules. In other words, although the unit counts for the straight hotel versus the other types of units is similar (161 versus 180 units), by module (and thus programmed space) straight hotel units make up 161 modules versus 450 modules for the non-hotel units, or roughly one-third hotel modules and two-thirds other modules.

[8] 6.96 acres of which are below MHT.

[9] As would 8.23 acres of Parcel 1.

entry. The project also includes a roadway extension off of Sand Dunes Drive to the Applicant's adjacent property located outside of the City.[10] That portion of the Sand Dunes Drive extension nearest the Highway and the proposed off-site extension would include surface parking on either side of the street totaling 70 spaces. The Sand Dunes Drive extension would be striped with a bike lane (i.e., Class 2), except for the area extending through the 70 parking spaces where only signs would be provided (i.e., Class 3). A bike rack would also be installed at the entrance to the public parking area. In total, the project includes approximately 38,800 square feet of new roadway (Sand Dunes Drive) and related parking, with another 17,600 square feet in resort driveways, resort entrance, and roadway stub to the adjacent property. All told, about one half the site above MHT would be occupied by buildings, roads, and parking areas.[11]

Grading

Site preparation activities associated with the project include grading, excavation, and recontouring of approximately 88% of the dune area above MHT, totaling about 28 acres. Essentially all of the area above the 20-foot dune contour, including the large dune at the site's southeast corner, would be graded. Primary grading activities would include approximately 693,000 cubic yards of grading that would be necessary to create the area where the proposed primary structures would be constructed. The largest dune feature at the southern edge of the site would be completely recontoured to reduce its height by about 15 feet and flatten its northern exposure to conform to the buildings to be constructed, and the large dune feature midway on the site would be removed entirely to make way for the entry road to the main reception area of the facility. A new tall dune feature (approximately 105 NGVD at its crest) would be formed between the primary structures and that portion of Sand Dunes Drive with the 70 surface parking spaces (i.e., between the main buildings and Highway One). The fore dune area seaward of the buildings would be graded from a rolling 35-foot to 60-foot NGVD contour to a uniform 30-foot NGVD elevation, and several hillock depressions would be formed in this area. See grading plan in Exhibit 8.

Utility Development

The project includes utility extensions from inland utilities to and across the site to provide basic services to the project (i.e., water, sewer, gas, electricity, etc.). See Exhibit 4 for utility infrastructure plans. Water is proposed to be provided by Cal-Am, and wastewater would be directed to the regional wastewater treatment plant in Marina. The project would also collect and filter runoff through a series of bioswales and a retention pond/created wetland area. The project also includes a series of "green" technologies to limit the need for such services. For example, gray water recycling is proposed for

[10] The proposed project shows the roadway extension to the adjacent parcel (see Exhibit 4), but does not include any proposed development on the adjacent parcel. The proposed project plans, however do show roadway development and stub utilities extending over the City limit line onto the adjacent property and into Monterey County (see project plans in Exhibit 4). This development is not part of the Applicant's proposed project, and any development proposed outside of the City is not properly before the Commission and will not be reviewed as part of this CDP application.

[11] 14.15 acres, or about 44% of the site above MHT.

subsurface irrigation of dune restoration areas, green landscaping (i.e., planted roofs, resort grounds, and gardens), and groundwater recharge via bioswales. Additional renewable energy technologies (i.e., wind, solar, and geothermal) are also proposed to augment conventional sources of power. See Exhibit 10 for additional information relating to the green technologies proposed.

Public Access Improvements

Public access to the site would be provided along the Sand Dunes Drive extension, and along a 5-foot sidewalk along the road. Just beyond proposed driveway spur at the northeast corner of the site, the sidewalk would transition to a boardwalk that would extend perpendicular to Highway One and extend to the shoreline via a public vista point on the bluff edge, then down to the Monterey Bay. Public access would be limited to daylight hours, and would be restricted at the gatehouse and gate location. The public access route and the portion of the site seaward of roughly the 20-foot NGVD contour would be placed in a public access easement for lateral access along the beach (see Exhibit 11).[12]

Dune Restoration/Revegetation

The project also includes a dune restoration program designed to restore and protect dune habitats on 13.85 acres of the site that would be placed in a conservation easement (see Exhibit 11). Additional dune species revegetation will take place on an additional approximately 9 acres or so (on tops of building roofs, and for landscaped grounds and gardens). The Applicant also has committed to establishing an environmental trust fund that would contribute an estimated $200,000 per year endowment to manage the restoration and revegetation areas.

See Exhibits 4 - 8 for project site plans, elevations, renderings, and additional proposed project details.

C. Project Procedural History

The Applicant originally proposed a different mixed-use (hotel, residential, retail, etc.) development at this same site in the late 1990s. That previous project proposed a slightly higher level of intensity and scale than the currently proposed project. Specifically, the Applicant previously proposed a 495 unit mixed use development consisting of a 217-room hotel, 100-unit timeshare resort, 45 visitor-serving condominium units, and 133 traditional residential units. See Exhibit 12 for site plans and elevations for the previously proposed project.

On December 14, 2000, and on appeal from a City of Sand City decision approving the then proposed project, the Commission denied the project due to inconsistencies with LCP provisions related to ESHA, water supply, geologic hazards, visual resources, traffic, and public access, and due to inconsistencies with the Coastal Act's access and recreation policies. The Commission found at that time, that given the

[12] The materials submitted by the Applicant show a gap in the public access easement between the entrance to the site (at the gate/gatehouse) and the portion of Sand Dunes Drive with the surface parking spaces. The Applicant indicates that this is a mistake, and that the easement proposed would extend all the way from the public portion of Sand Dunes Drive to and along the ocean, thus including this gap area.

significant adverse impacts to coastal resources posed by the project, and the absence of an approved method to supply the project with water, it was impossible to conclude that the project was consistent with the Sand City LCP and the public access and recreation policies of the Coastal Act. It further noted that in light of the lack of fundamental information needed to resolve these issues (e.g., more detailed habitat evaluation, Water Distribution Permit, additional geotechnical analyses), and the major revisions required to bring the project into conformance with LCP visual protection standards (e.g., considerable reductions in the amount of landform alteration and the height and size of the proposed structures), denial rather than conditional approval was the appropriate option.

The Applicant subsequently sued the Commission over the Commission's denial, and a series of lengthy court proceedings followed. Ultimately, on December 2, 2005, the Commission's denial was upheld by the San Francisco County Superior Court. The Applicant appealed the Superior Court's decision to the First District Court of Appeals. On January 25, 2008, the Court of Appeals reversed and held that the Commission had erred in its application of the LCP's ESHA policies. More specifically, the Court held that the site could not be considered ESHA under the LCP, and on May 27, 2008 the courts remanded the matter back to the Commission to re-hear the project with that understanding. Significantly, the Court of Appeals' decision did not consider any of the Commission's other bases for denying the proposed project.

Subsequently, the Applicant significantly revised the project to its current form (as described in the preceding Project Description finding), and submitted materials in support of the revised project in late 2008 and early 2009. The Superior Court also then directed the Commission to hold a hearing on the revised project by March 31, 2009 unless the parties mutually agreed to another hearing date. Following the MPWMD's denial of a water permit for the project on February 26, 2009, the Applicant requested a three-month extension of the judicial deadline for a hearing, and Commission staff agreed. The new judicial deadline for hearing the application is June 30, 2009, and this staff report is the culmination of the review process.

Thus, the revised project described above is the proposed project before the Commission, and not the project that was denied in 2000. Other than requiring that the site not be considered ESHA, the Court's remand does not limit the Commission in any way in its review of the modified proposed project. The Commission retains its full discretion to approve, approve with conditions, or deny the proposed modified project based upon the facts of the case. If the Commission were to approve a project, the City would then review the project.[13]

2. Standard of Review

The standard of review for the proposed project is the certified City of Sand City LCP and, because the proposed development is located seaward of the first public road, the public access and recreation

[13] The Applicant submitted a "Revised Master Set of Conditions of Approval" from the City that should be considered in any Commission approval, although the City has not approved them yet.

policies of the Coastal Act.

3. Coastal Development Permit Determination

A. Public Services

1. Applicable Policies

The LCP identifies public services as a constraint to new development due to limited availability of water and wastewater treatment capacity. Applicable LCP LUP and IP policies include:

> ***LUP Policy 4.3.27.*** *Require future developments which utilize private wells for water supply to complete adequate water analyses in order to prevent impacts on Cal-Am wells in the Seaside Aquifer. These analyses will be subject to the review and approval of the Monterey Peninsula Water Management District. In support of MPWMD's review and permit authority, the City should incorporate these requirements into City development review.*
>
> ***LUP Policy 6.4.10.*** *New development shall be approved only where water and sewer services are available and adequate….*
>
> ***LUP Policy 6.4.11.*** *Prior to the approval of any new development within the coastal zone of the City of Sand City, adequate sewage treatment facility capacity shall be demonstrated consistent with the provisions and requirements of the California Regional Water Quality Control Board.…*
>
> ***LUP Policy 6.4.12.*** *Within the Coastal Zone, permit only new development whose demand for water use is consistent with available water supply and the water allocation presented in Appendix F [MPWMD assignment to Sand City of a relative share of total Cal-Am water usage – see below].*
>
> ***LUP Policy 6.4.13.*** *Require all new developments to utilize water conservation fixtures (such as flow restrictions, low-flow toilets, et cetera).*
>
> ***LUP Policy 6.4.14.*** *Require water reclamation or recycling within large industrial uses and encourage water reuse for landscaping wherever possible and economically feasible.*
>
> ***LUP Policy 6.4.16.*** *Require that landscaping in new developments and public open space areas maximize use of low water requirement/drought resistant species.*
>
> ***LUP Policy 6.4.17.*** *If dune management programs are implemented on State owned properties or other Areas within the City, investigate the feasibility of using reclaimed water for irrigation.*
>
> ***IP Coastal Zone Overlay District, Permit Conditions, Sections (c)(8) and (c)(10).*** *In*

considering a coastal development permit application, the City Council shall give due regard to the Local Coastal Program in order to approve a development, and the Council shall make findings that approval of the permit is consistent with the Local Coastal Program, including but not limited to: …(8) Demonstrated availability and adequacy of water and sewer services. …(10) Compliance with City water allocation.

IP Section 3.2, Coastal Zone Overlay District, Permit Conditions, (c). *In considering a coastal development permit application, the City Council shall give due regard to the Local Coastal Program in order to approve a development, and the Council shall make findings that approval of the permit is consistent with the Local Coastal Program, including but not limited to: …(8) Demonstrated availability and adequacy of water and sewer services. …(10) Compliance with City water allocation;…*

IP Section 4.2 (Sand City Water Allocation Resolution). *… In order to protect water resources, and ensure the availability of water for coastal land uses, the maximum water usage allowable in the coastal zone for new developments shall be limited to the water allocations established in the Local Coastal Land Use Plan. …The water allocations established in the Local Coastal Program may be revised according to any changes in water allotments granted to Sand City by the District. A change in the water allocations established in the Local Coastal Land Use Plan will require a Local Coastal Program amendment.*

The LCP clearly recognizes that water is a finite commodity in great demand in Sand City and the surrounding area. The LCP thus only allows approval of new development where it has been clearly demonstrated that adequate water supply is available to serve the development, and that such water is consistent with the MPWMD allocation to Sand City, or has been reviewed and approved by MPWMD in certain circumstances, including those that apply here. Likewise, the same availability and adequacy criteria apply to the need for wastewater services as well. The LCP includes these limitations to ensure that new development does not exacerbate water and wastewater problems, both in Sand City and, because water and wastewater are regional resources and constraints, in the surrounding area.

2. Wastewater Services

Wastewater from the site would be directed to the Monterey Regional Water Pollution Control Agency (MRWPCA) wastewater treatment plant in Marina via delivery lines maintained by the Seaside County Sanitation District (SCSD). MRWPCA's Marina plant currently process slightly under 20 million gallons per day (MGD) and has a permitted capacity of 25 MGD.[14]

The project would generate up to 50.5 acre feet per year (ac-ft/yr) of wastewater. Both MRWPCA and SCSD have provided confirmation that there is adequate and available capacity to serve the proposed

[14] The plant has a maximum operating capacity of 30 MGD, but the Regional Water Quality Control Board (RWQCB) permit limits this facility to a maximum of 25 MGD.

project.[15] The proposed project is consistent with the LCP with respect to wastewater services.[16]

3. Water Supply Context

The adequacy and availability of water to serve the development is the key public services question with respect to the proposed development. Water supply in this area is extremely limited, and existing and new water extractions to serve development raise a series of significant and complicated issues. This section provides background on the water supply context within which this proposed project finds itself, and in light of which LCP provisions must be understood.

A. Existing Public Water Supply for the Project Area

The primary water supply for communities on the greater Monterey peninsula is managed by the MPWMD and provided by a privately-owned water purveyor, Cal-Am. Cal-Am extracts the water it sells from both the Carmel River and the Seaside groundwater basin aquifer, which underlies much of the Monterey Peninsula area, including Sand City. MPWMD allocates Cal-Am's water supplies among various cities and Monterey County, who in turn decide how to distribute their respective allocations to users within their jurisdictions. The project site is located outside the area currently served by Cal-Am, and the nearest Cal-Am water lines are located inland of Highway One approximately 670 feet from the site.[17]

There are currently significant regulatory constraints on Cal-Am's production from both the Carmel River and the Seaside aquifer and there is the potential for significant reductions in the current production from both sources.

Carmel River Extractions

It has been long established that current Cal-Am water withdrawals are having significant adverse impacts on the Carmel River. The river, which lies within the approximate 250 square mile Carmel River watershed, flows 35 miles northwest from the Ventana wilderness in Big Sur to the Ocean. Surface diversions and withdrawals from the river's alluvial aquifer have had significant impacts on riparian habitat and associated species, particularly in the lower reaches.[18] This includes adverse impacts to two federally threatened species, the California red-legged frog (*Rana aurora draytonii*), listed in 1996, and steelhead (*Oncorhynchus mykiss*), listed in 1997. In particular, water diversions and

[15] See SCSD letter dated April 17, 2008 in Exhibit 18. Delivery line and pump station upgrades are not expected to be required to serve the proposed project, but SCSD indicates that, if they are, the cost of such upgrades attributable to the project would be borne by the Applicant. To the extent such upgrades were necessary and raised coastal resource concerns, a coastal permit approval may be required. However, SCSD indicates that the existing system appears adequate to serve the project, and that any upgrades would only occur within existing developed roadway alignments and thus are not expected to result in adverse coastal resource impacts.

[16] This finding is based on the understanding that the project would not require wastewater infrastructure improvements that would lead to adverse coastal resource impacts, as has been represented in the application. Because the proposed project is consistent with the LCP with respect to wastewater services, this issue is not discussed further in these findings.

[17] EIR Addendum, p. 107.

[18] See, for example, *Instream Flow Needs for Steelhead in the Carmel River: Bypass flow recommendations for water supply projects using Carmel River Waters*, National Marine Fisheries Service, June 3, 2002.

withdrawals reduce the stream flows that support steelhead habitat and the production of juvenile fish, especially during dry seasons.

In 1995, the SWRCB issued Water Rights Order 95-10 ("Order 95-10") in response to complaints alleging that Cal-Am did not have a legal right to divert water from the Carmel River and that the diversions were having an adverse affect on the public trust resources of the river. The SWRCB found that Cal-Am was diverting 14,106 ac-ft/yr, yet only had a legal right to withdraw about 3,376 ac-ft/yr from the river, and that the Cal-Am diversions were having an adverse effect on the lower riparian corridor of the river, the wildlife that depends on this habitat, and the steelhead and other fish inhabiting the river. The SWRCB thus ordered Cal-Am to implement measures to terminate its unlawful diversions.

SWRCB Order 95-10 also reduced the amount of water Cal-Am could take from the Carmel River and its alluvial aquifer by 20 percent in the near-term and up to 75 percent in the long-term. The SWRCB further required that any new water that is developed/obtained by Cal-Am must first completely offset Cal-Am's unlawful diversions from the Carmel River before it can be used for new construction or expansions in use. Since that time, the jurisdictions along the Monterey peninsula have been implementing conservation measures, and have focused their efforts on improving water conservation programs, while also working on other potential water supply augmentation proposals. For example, along with other regional stakeholders, and largely to address Order 95-10 issues, Cal-Am has been pursuing development of a large-scale desalination facility (known as the "Coastal Water Project") in north Monterey County (in Marina or Moss Landing) capable of producing 10 MGD (11,210 ac-ft/yr) of potable water. The project, however, is in the preliminary environmental assessment stage, and it is unknown when or if such a facility may come online.[19]

In the time since Order 95-10 was issued in 1995, however, Cal-Am has made no significant reductions in its diversions above its legal right from the Carmel River. As a result, the SWRCB issued a draft cease and desist order in 2008 that would compel Cal-Am to reduce its pumping of the Carmel River by 15% by October 2009, increasing to a 50% reduction by 2016 (see Exhibit 14).[20] The draft order states that Cal-Am's unauthorized diversions are continuing to have adverse effects on the public trust resources of the Carmel River and should be reduced. Further, notwithstanding Order 95-10, Cal-Am water withdrawals have not been reduced beyond the initial 20% reduction in 1995, even while the Monterey peninsula urban population has increased from approximately 100,000 in 1995 to 112,000 today. Thus, the draft order observes:

> *Order 95-10 condition 2 intended that Cal-Am would make one-for-one reductions in the unlawful diversions from the Carmel River for water obtained from other sources, such as*

[19] The California Public Utilities Commission recently distributed a draft EIR for the Coastal Water Project in February 2009, and is currently soliciting comments on it.

[20] State of California, State Water Resources Control Board, Division of Water Rights, Draft Cease and Desist Order WR 2008-00XX-DWR (January 15, 2008); see Exhibit 14.

conservation. The current water management strategy used by Cal-Am/MPWMD, however, has not resulted in any significant reduction of unlawful diversions from the Carmel River since 1998. Instead, it appears that water savings resulting from conservation efforts have been redirected to support marginal increases in development.

The cease and desist order hearings have been completed and a decision is pending from the SWRCB. It is clear that the cease and desist order could potentially drastically limit Cal-Am extractions, and thus its ability to supply water to the greater Monterey peninsula going forward.

In sum, it is clear that the public water supply currently drawn from the Carmel River is having a significant adverse impact on the coastal resources of the Carmel River system. In addition, it is clear that it will be many years before any new regional public water supply is available for new development on the greater Monterey peninsula.

Seaside Aquifer Extractions

The only other currently-available water supply for the greater Monterey peninsula is the Seaside coastal groundwater basin aquifer (Basin).[21] Like the Carmel River, that water source is dangerously over-used. A recent technical report completed for MPWMD shows consistently declining water levels and deficit water budgets over an 8-year period, indicating that the Basin is in a state of overdraft since groundwater extractions exceed the sustainable yield.[22] According to the MPWMD-sponsored report, in the event of a prolonged drought, storage in the Seaside basin could not be relied upon to sustain current levels of production for very many years in a row.[23]

More recently, existing and potential withdrawals from the Basin have been adjudicated in Monterey County Superior Court (referred to as the "Adjudication").[24] The Court concluded that the "natural safe yield" of the Seaside basin is between 2,581 to 2,913 ac-ft/yr, but that total groundwater production withdrawals over the preceding five years ranged between approximately 5,100 and 6,100 ac-ft/yr, or roughly twice the safe yield of the Basin. All parties to this Adjudication were in agreement that continued production from the Basin beyond the safe yield will ultimately result in seawater intrusion and additional deleterious effects to the Basin in the foreseeable future. Under a schedule set out by the

[21] Sand City recently obtained approval in 2005 to build a desalination facility (including an operational agreement between the City and Cal-Am for production and delivery of water) in the City downcoast of the subject site (Coastal Commission CDP A-3-SNC-05-010). That facility is currently under construction, and is expected to produce 300 ac-ft/yr of potable water that would be available to be allocated within Cal-Am's service areas within the City (i.e., not including the subject site). Water not allocated to City uses is required to be applied by Cal-Am to offset extractions from the Carmel River and the Seaside Basin aquifer. Once the facility comes on line, and based on the current potable water use within the City, the reduction in pumping would be 300 ac-ft/yr (because current City demand would be unchanged, while 300 ac-ft/yr of new water would available to apply to reduced pumping), and at full expected buildout of the City, the reduction in pumping from Cal-Am's Carmel River or Seaside basin water sources would be approximately 94 ac-ft/yr.

[22] Eugene Yates, Martin Feeney and Lewis Rosenberg, *Seaside Groundwater Basin: Update on Water Resources Conditions* April 2005 for MPWMD (available athttp://www.mpwmd.dst.ca.us/seasidebasin/index.html). Estimated sustainable yield is about 2,880 ac-ft/yr while average extractions are about 5,600 ac-ft/yr.

[23] Id; p. 28.

[24] *California American Water v. City of Seaside*, Monterey County Superior Court Case M66343.

Court, most current withdrawals from the Basin would have to be reduced 10% every three years beginning in 2009, unless a supplemental water source is obtained for the greater Monterey peninsula. The Court also appointed a special Watermaster[25] to help implement a long-term management program to reduce production from the Basin over time to the natural safe yield. The Watermaster can impose additional cuts (beyond the phased 10% triennial reductions) if the groundwater conditions worsen.

B. Proposed Water Supply for Proposed Project

The proposed project would require 71 ac-ft/yr of water. In the Adjudication, the Applicant's groundwater production allowance was identified as 149 ac-ft/yr, based on its status as the owner of land overlying a portion of the basin and historical production from a well on the site.[26] The Applicant seeks, however, to utilize that production allowance by connecting to the Cal-Am water supply system so that the water for the proposed project would be physically extracted elsewhere and provided to the project by Cal-Am through pumping at its inland wells.[27] The premise of the Applicant's water permit application was that, because Cal-Am would be extracting the groundwater using the Applicant's separate and distinct well production water rights, Cal-Am could produce an additional 90 ac-ft/yr to serve the project without regard to the various regulatory and judicial restrictions on Cal-Am's current groundwater production.[28] As indicated above, the project site is not located within Cal-Am's current water distribution system. In order to serve the project, MPWMD would need to approve a water distribution system permit ("water permit") for the Applicant and Cal-Am. In September 2008 the applicant and Cal-Am applied for a water distribution permit for 90 ac-ft/yr.

C. Water Permit Denied

The Applicant's water permit application was first heard by the MPWMD Board on November 17, 2008. The District Board voted unanimously to continue the hearing until January 29, 2009. At the continued meeting on January 29, 2009, the District Board heard extensive public comment. The MPWMD Board then continued the item to the February 26, 2009 meeting, and made requests for

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[25] The "Watermaster" is not a single individual; rather the Watermaster is a board made up of 9 voting members. MPWMD, MCWRA, Cal-Am, Seaside, Sand City, Monterey, and Del Rey Oaks each appoint one member, and underlying basin landowners with certain water rights appoint two members. The votes are weighted differently among the members. Specifically, the 9 positions are allotted 13 total votes, with Cal-Am having 3 votes; MPWMD, MCWRA, and Seaside with 2 votes each; Sand City, Monterey, and Del Rey Oaks each with one vote; and the landowners each with one-half vote. .

[26] *California American Water v. City of Seaside*, Monterey County Superior Court Case M66343.

[27] MPWMD staff report for their February 26, 2009 meeting.

[28] Under the Adjudication, the Applicant's groundwater allocations are separate from (and have priority over) water rights held by certain other producers, including Cal-Am (Seaside Basin Adjudication, 9, 20). As such, the Applicant's production rights are not included in the court-imposed, phased, 10 percent triennial cuts in groundwater pumping that begins in 2009 for most other users (including Cal-Am) unless certain criteria are met (i.e., certain water supply augmentations, etc.), and potentially exempt from any further reductions ordered by the Watermaster if the condition of the Basin worsens. These production rights, however, are still subject to the Adjudication overall, and if water is extracted to serve a priority user, like the Applicant, under the Adjudication, that water use still is required to be offset in the Basin. In other words, any water used by the Applicant must be offset by reductions in water use by other users in the Basin (i.e., the court has capped the amount of water that can be withdrawn from the aquifer each year, but the Applicant has a senior right to such water).

additional information.[29]

On February 26, 2009, MPWMD denied Cal-Am and the Applicant's water permit application and directed staff to prepare findings. The MPWMD determined that Cal-Am could not supply the proposed project without utilizing water from the Carmel River, and that such use was inconsistent with SWRCB requirements, including those pertaining to Order 95-10. Earlier, the District had received an opinion from the Chief Enforcement Officer and Assistant Deputy Director of the SWRCB that the Applicant and Cal-Am's proposal would not trigger certain restrictions of Order 95-10, but only if no Carmel River water was used and Cal-Am could impose procedures that only Basin groundwater was used. At the February 26, 2009 MPWMD hearing, Cal-Am indicated that they could not comply with the SWRCB conditions related to avoiding Carmel River extractions to serve the proposed project and objected to proposed conditions on a water permit that implemented those restrictions.

As a result of Cal-Am's inability to guarantee that no Carmel River water might be used to serve the Applicant's development, the MPWMD found that the SWRCB could impose a reduction in overall extractions from the Seaside Basin to offset the 90 ac-ft/yr to be pumped for the Applicant's project. In other words, if the Applicant were to be served from water from the Basin, then other Basin users could be forced to reduce their use by that much. This reduction in supply for others in the Basin would have significant social ramifications, and could have significant environmental impacts, particularly in light of the other pending regulatory and judicial orders to reduce pumping, and those impacts were not considered in Sand City's original EIR or the draft EIR Addendum. As a result, MPWMD indicated that if Cal-Am and the Applicant were going to continue to pursue a water permit to serve the proposed project, then Cal-Am and the Applicant would need to prepare a Subsequent EIR that covered all potential such individual and cumulative impacts, for use in MPWMD's deliberations on any such reapplication.[30]

D. On-Site Wells

Some of the Applicant's communications with the Commission have indicated that its on-site well could also be used as an alternate water supply for the proposed project in the event that a water permit could not be obtained for interconnection with the Cal-Am system.[31] However, the Applicant has not applied to the Commission for a private well system.[32] Currently, the use of on-site wells and construction of a

[29] At the January meeting, three Board members voted to deny the application without prejudice, two members voted to grant the permit with several significant new conditions, and two members were absent. All motions failed, as four votes are required for a District Board action.

[30] It is not clear at the current time whether the Applicant intends to re-apply for a new water permit, but it is clear that if they did, it would require a significant amount of time to engage that process, including with respect to completion of a subsequent EIR (requiring preparations, distribution for comment, response to comment, and certification), and to emerge with a decision.

[31] Letter from Applicant to Commission staff dated October 17, 2008, p.2.

[32] Although Commission staff repeatedly requested clarification on this point (see letters dated September 12, 2008 and January 16, 2008), the Applicant has not to date clearly articulated that a private well system is proposed, only that it could be considered as an alternative water source. In addition, the Applicant's current application before the Commission does not permit consideration of a water supply

private water system would be inconsistent with LUP Policy 4.3.27, which requires water analyses of the effect of such pumps on the Seaside Aquifer to be submitted for the review and approval of the MPWMD before any development relying on such wells can be approved. The Applicant has not conducted such analyses and the Applicant's water permit application did not seek to physically use wells on the subject site to obtain water for the proposed project.[33] Rather, the Applicant proposed to shift to physical extraction from Cal-Am wells and the public water system for a number of reasons.

The Commission's December 2000 findings denying the Applicant's previous project at this site -- a project that proposed using 109 ac-ft/yr from on-site wells -- illustrates the importance of those LCP requirements.[34] The Commission found that the Applicant had not demonstrated an adequate water supply under LUP Policy 6.4.10 nor complied with LUP Policy 4.3.27 because of the danger that pumping from the on-site wells would create further overdraft of the Seaside aquifer and permit saltwater intrusion, and because MPWMD had denied a permit for that proposal.[35] Thereafter, the Applicant sought judicial review of the MPWMD denial, and ultimately both the trial court and the Court of Appeal ruled that substantial evidence supported MPWMD's determination that pumping from the on-site wells would: (a) create or contribute to an overdrafted groundwater aquifer; (b) result in an unacceptable risk of groundwater quality degradation; and (c) adversely impact existing water users. The Court of Appeal also held that the Applicant's assertion of superior overlying groundwater rights did not entitle the Applicant to a water distribution system permit.[36]

In addition to these concerns, the Applicant has recognized that use of its private wells and construction of a private water system would require significant additional development as part of its project (including a 200,000 gallon tank that would need to be located on-site, etc.), and would require various state, county, and MPWMD approvals regarding public health, water quality, and water monitoring that SNG has not addressed in its present water supply proposal.[37] Indeed, the reason the Applicant proposes the Cal-Am interconnection is to obviate the need to construct and operate a private water system, including ensuring consistency with the concomitant regulatory requirements, as well as to minimize the potential environmental impacts from pumping from its coastal wells, rather than Cal-Am's inland wells.

Finally, recent developments raise additional issues regarding the viability of a private water supply system for SNG's project using on-site wells. The Seaside Basin Adjudication required that the Watermaster develop a plan to address the potential for seawater intrusion into the groundwater aquifer,

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from a private well because the LCP-required design, review, analyses, and other agency approvals, including MPWMD approval, have not been submitted. The on-site well discussion in this finding is provided to better understand the relevant on-site well context.

33 MPWMD adopted findings of denial dated March 26 2009, finding number 3.

34 Coastal Commission adopted denial findings for the December 14, 2000 hearing, pages 27-31.

35 MPWMD permit application denied by MPWMD on October 26, 2000. [Note that the San Francisco Superior Court specifically upheld the Commission's water supply findings in a Statement of Decision filed on December 2, 2005. The Applicant did not appeal that issue and the Court of Appeal's reversal and remand only addressed the ESHA findings in the Commission's December 2000 denial.]

36 *SNG v. MPWMD*, Court of Appeal, Sixth Appellate District, No. H024969, December 31, 2003.

37 Letter from SNG to Commission staff dated October 17, 2008, p. 9.

and such plan has been developed.[38] Although no seawater intrusion has been detected due to groundwater pumping yet, it is apparent, based on the water level and pumping data, that such potential exists.[39] It will not be possible to halt or reverse any such intrusion until supplemental water supplies are available.[40] Therefore, if seawater intrudes into a production well in the Basin, the response plan requires that particular well to immediately cease or substantially reduce production.[41] It is not clear how a private, separate water system on the subject site could provide for this contingency. In addition, given its location immediately adjacent to the ocean, a well or wells at the subject site would be at increased danger of creating or contributing to seawater intrusion in the Basin than would more inland wells that are more buffered from potential seawater plumes.

4. Proposed Project is Inconsistent with the LCP

As described above, the LCP only allows approval of new development where it has been clearly demonstrated that adequate water supply is available to serve the development, and that such water is consistent with the MPWMD allocation to Sand City, and has been reviewed and approved by MPWMD in certain circumstances, including those that apply here.

A. Water Permit Required

The intent of the LCP water supply policies, including LUP Policies 4.3.27 and 6.4.10, is to ensure that prior to approving new development the Applicant can demonstrate and the City, or Commission on appeal, can find that adequate water is available to serve the development. In addition, LUP Policy 4.3.27 establishes the requirement that MPWMD review and approve applications that utilize private wells and that applicants proposing this type of water supply demonstrate a lack of impact on Cal-Am wells in the Seaside aquifer and, by direct correlation, Cal-Am's tens of thousands of customers.[42] The Applicant is "utilizing [its] private wells" under Policy 4.3.27 because it proposes to use its superior and distinct well water rights (obtained by virtue of its landowner status and the previous and continuing use of its private wells) to have Cal-Am extract an additional 90 ac-ft/yr from the groundwater basin. Because the Applicant's water rights are separate and distinct from Cal-Am's production rights, Cal Am and the Applicant contend that this additional extraction of "SNG's" water is exempt from the regulatory and judicial caps on Cal-Am's production of "Cal-Am's" water. Under this theory, the Applicant's proposed water supply will have the same legal and physical effect as pumping directly from the Applicant's well, except that the water will be extracted from the Basin at a Cal-Am well (or, as recently discovered, from the Carmel River). Thus, Policy 4.3.27 is directly applicable, even though the water would actually be delivered by Cal-Am.

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[38] Seawater Intrusion Response Plan, November 2008.

[39] Id., p. 2.

[40] Id., p. 15.

[41] Id., p. 16.

[42] The fact that Cal-Am endorses this additional production does not establish a lack of impact on its production for the public water supply. Cal-Am is not a public regulatory agency charged with protecting water resources or the general public interest.

Towards this end, the LCP specifically calls for comprehensive water analyses to be reviewed and approved by MPWMD, the regulatory body in charge of managing water use throughout the greater Monterey peninsula, and explicitly indicates that MPWMD's review and approval is to be incorporated into the development review process in the City. Such development review process includes the CDP application review process, and specifically applies to the application now before the Commission. As noted above, the MPWMD water permit has been denied because of the significant issues raised by SNG's current water supply proposal. Without a MPWMD water permit, the proposed project cannot be found consistent with LUP Policy 4.3.27.

To correct this LCP inconsistency, and rather than obtain the requisite water permit prior to the Commission's review of the proposed development, the Applicant has requested that the Commission condition the issuance of its permit as follows:

> *Prior to the recordation of the final tract map, and issuance of the Coastal Development Permit, a water distribution permit, consistent with Monterey County Superior Court's Final Decision and Judgment adjudicating the Seaside Groundwater Basin, shall be required from the Monterey peninsula Water Management District.*[43]

The Applicant's proposed condition to attempt to conform the CDP to LCP requirements, or other similar conditions as may be proposed, conflicts with the specific requirements of LCP Policy 4.3.27 in that the necessary water analyses have not been conducted, much less reviewed and approved by MPWMD. In fact, as indicated above, MPWMD denied the Applicant's water permit. It is possible that the Applicant may re-apply to MPWMD, but, as indicated previously, such application will require significant additional studies and information, raises significant and complicated issues and concerns, and is unlikely to be completed in the near term. In fact, the conclusion of any such re-application could be years away.

Moreover, a condition of this sort is also inconsistent with LCP Policy 6.4.10 (and IP Coastal Zone Overlay District, Permit Conditions, Sections (c)(8) and (c)(10)), which requires demonstration of adequate water prior to the approval of new development. Obtaining prior authorization from the MPWMD is not only a procedural issue per the LCP, but it also goes to the substantive issues of protection of water resources. Moreover, the fact that the Applicant's water permit has now been denied twice by MPWMD (once in relation to the previously proposed project and now more recently in relation to the project now before the Commission) is indication that obtaining approval for such a water permit is a difficult undertaking. Indeed, as detailed in the preceding findings, water supply to the subject site raises a host of complicated planning, regulatory, judicial, and use issues. The degree to which water is or is not eventually found to be adequate and available for the project is a fundamental issue the conclusion of which will directly affect what is and is not approvable with respect to water supply, and at what scale. As such, reliance on a condition that presumes a certain amount of water, including presuming the amount identified by the Applicant for the proposed project, is inappropriate.

[43] See Exhibit 17: proposed Revised Master Set of Conditions of Approval at page 7.

The water constraint needs to be clearly resolved before the Commission can consider a project at this location, so that it can understand the manner in which that constraint affects potential development, consistent with the LCP at this location.

B. Other Water Supply Impacts

In denying the water permit, MPWMD found the environmental analysis contained in Sand City's draft Addendum to the 1998 Final EIR to be insufficient. That draft Addendum explained that the groundwater impacts of the proposed project are expected to be reduced compared to the previously-denied project because the Seaside Basin is now managed via a "physical solution" based on the Adjudication which balances the rights, needs, and impacts of water production by other users within the Basin by determining water rights and creating a Watermaster to oversee pumping. The Adjudication also mandates the preparation and implementation of a Seaside Basin Monitoring and Management Plan to monitor the existing and future conditions of the Basin as a perpetual source of water for beneficial uses.

Though it may be true that the Adjudication's physical solution divided up the rights to water production from the Seaside Basin, it cannot be said that the environmental impacts of the proposed water supply have been addressed as required by the LCP. Existing data on the Seaside aquifer does not support an assumption that the project's proposed water use will not have an adverse affect on existing wells in the Basin. As far back as 1995 it was known that water from the Seaside Basin was being extracted at unsustainable rates. On page 155 the 1998 Final EIR states, in relevant part:

> *Groundwater pumping now exceeds the safe yield [of the Seaside aquifer], which … has been in overdraft since Cal-Am started pumping the Peralta Well in 1995. The pumping levels are below sea level as demonstrated by the negative elevations reported in the Fugro Phase III Report. In 1995 groundwater pumping of 4,701 acre-feet exceeded the safe yield [of the Seaside Basin] by 383 acre-feet. The same occurred in 1997 with 4,496 acre-feet pumped which exceeded the safe yield by 121 acre-feet.*

Similarly, Page 157 of the Final EIR states:

> *Use of the on-site PCA well will further exacerbate overdraft of the Seaside aquifer by an additional 125 acre-feet and bring the combined pumping of the Seaside aquifer to over 5,000 acre-feet as compared with the estimated safe yield of 4,375 acre-feet for an overdraft in excess of 625 acre feet.*

The Final EIR continues, on page 158:

> *… the Seaside aquifer could be in overdraft by an excess of 500 acre-feet depending upon the amount pumped from the project's well(s) and the pumping by Cal-Am and the other users of the groundwater basin. Most, if not all, wells in the groundwater basin are pumping from below sea level thus reversing the direction of groundwater flow from offshore toward the onshore wells.*

This results in a significant impact on the Seaside Aquifer and the groundwater resources.

In 2005, a report prepared on the condition of the Seaside Basin for the MPWMD[44] concluded that at the current rate of extraction, which at the time was approaching 5,600 ac-ft/yr, seawater intrusion was a certainty. The report estimated the sustainable yield of the Seaside Basin at 2,880 ac-ft/yr. The report noted that chronic declining water levels and deficit water budgets over an 8-year period characterized by slightly below average to wet climatic conditions, suggested that the Basin was in overdraft and that groundwater extraction was exceeding sustainable yield.

In 2006, the operating yield for the Seaside Basin established by the court adjudication was set at 5,600 ac-ft/yr, while natural safe yield was estimated to range between 2,581 and 2,913 ac-ft/yr. The operating yield established by the adjudication exceeds the 1997 estimated safe yield (4,375 ac-ft/yr) by 1,225 ac-ft/yr or 28 percent, and exceeds the current estimates of natural safe yield by a factor of two.[45] Thus, most, if not all, of the hydro-geologic evidence pointed towards overdraft conditions of the Basin and the need for immediate reductions in extractions. In addition, it is not entirely evident that the adjudication has addressed basin-wide impacts in the manner suggested by the draft Addendum to the Final EIR.

Even assuming that the Applicant can utilize its priority production allowance as it proposes, the increased demand will apparently trigger a commensurate reduction in water extractions within the Basin (pursuant to the legal framework created by the Court and pursuant to SWRCB Order 95-10), particularly in light of both anticipated and potential regulatory and judicially-imposed cut-backs in overall supply. Such reductions could have significant impacts on existing water users within the Basin, and also on coastal resources within the Carmel River watershed, which have yet to be identified in the current application. Thus, it cannot be said that the Applicant presently has an adequate and available water supply under LUP Policy 6.4.10.

Finally, it should be noted that despite the inclusion of water conservation efforts in the project, those measures are somewhat tempered by the additional amount of water proposed to be extracted over and above the estimated water demand needed to serve the development. For example, the Applicant applied to MPWMD for a water distribution permit to deliver 90 ac-ft/yr to the project site. Yet, based on water use factors provided by MPWMD for the proposed uses on site (i.e., hotel, visitor-serving condominiums, residences, restaurant, spa, etc.) and assuming 100% occupancy for each of those uses, the calculated amount of water needed to serve the development is 62.99 ac-ft/yr. The 62.99 ac-ft/yr figure includes 1.2 ac-ft/yr of potable water to augment non-potable recycled/gray water for irrigation purposes, and no reuse of water from laundry facilities. Total water use climbs to 71.08 ac-ft/yr if the gray water/recycle systems are assumed to be non-functional. Assuming that the recycle systems are not functional, there is a difference in the amount of water requested by the Applicant and the amount of

[44] Eugene Yates, Martin Feeney and Lewis Rosenberg, *Seaside Groundwater Basin: Update on Water Resources Conditions* April 2005 for MPWMD.

[45] Natural safe yield is the quantity of water existing in the Seaside Basin that occurs solely as a result of natural replenishment.

water needed to serve the development of 18.92 ac-ft/yr, and if those systems do operate as planned, the difference is 27.01 ac-ft/yr.

The additional water identified represents 27% to 43% more water above the base amount necessary to serve the proposed uses on site (depending on the assumptions made). The Applicant contends that the extra water is needed to serve as a buffer to account for water loss or attenuation within Cal-Am's distribution system, unusual circumstances, or additional irrigation of proposed green landscaping in the first year. However, the extra amount requested is unusually large. For comparison sake, and per MPWMD water use factors, 19 acre-feet of water is enough to serve a second 160-unit hotel and 120-seat restaurant and bar, and 27 acre-feet of water could serve a 160-unit hotel and 61 two-bedroom condominium units. In any case, the additional extraction of water over the calculated 71.08 acre-feet per year of water needed to serve the proposed development is not consistent with the LCP public services policies pertaining to water, which require new development to maximize conservation efforts and minimize water use in order to minimize impacts on water sources such as the Seaside Basin, and to ensure that new development will not have a deleterious effect on additional production wells in the Basin. As discussed above, extractions from the Seaside Basin greatly exceed the natural safe yield (i.e., natural replenishment) of the groundwater source, even with the recent Basin adjudication, and additional extractions will only exacerbate this problem.

5. Conclusion

It is clear that there is a significant water shortage problem in the greater Monterey peninsula area that has long been recognized and that is resulting in ongoing coastal resource degradation. It is likewise clear that a complicated series of interwoven solutions are being applied to this problem at planning, regulatory, judicial, and use levels throughout the peninsula. The Applicant contends that its production allocation from the Seaside Basin adjudication somehow absolves the applicant from addressing the impacts associated with the proposed project water use. However, while the Adjudication determined the maximum amount of water the Applicant has a right to use, it must still comply with all applicable laws and regulations when exercising those rights. The fact is that SNG has not shown adequate additional water available to serve the proposed project, or analyzed how any water allocated from existing available water sources would potentially lead to further water supply problems and impacts on coastal resources or how those impacts could be addressed. This is not to say that SNG could never obtain a water supply for its project consistent with the Sand City LCP. The MPWMD's denial of the Applicant's water permit anticipated that the Applicant could reapply, once these impacts are identified in a Subsequent Environmental Impact Report. Alternately, SNG could propose an alternate water supply that addresses these impacts. To that end, these findings identify the issues that any such proposal must address. Currently, however, the LCP only allows approval of new development where it has been clearly demonstrated that adequate water supply is available to serve the development, and that such water is consistent with the MPWMD allocation to Sand City, or has been reviewed and approved by MPWMD in certain circumstances, including those that apply here; none of these criteria are met here. The proposed project is inconsistent with the LCP's public services policies pertaining to water as cited in this finding above, and cannot be found consistent with the LCP in this respect. Water is a

fundamental coastal resource constraint that significantly directs what may or may not be approvable at the subject site, and conditions are not available, or appropriate, to adequately resolve the LCP inconsistency in this respect.

The Commission finds the proposed project inconsistent with the LCP's public services policies pertaining to water and denies the CDP.

B. Hazards

1. Applicable Policies

The LCP identifies hazards as a constraint to new development, particularly in the dunes seaward of Highway One, and requires that new development be sited and designed to avoid such hazards and ensure stability and structural integrity. Applicable LCP LUP and IP policies include:

> ***LUP Policy 4.3.4.*** *All developments shall be sited and designed to minimize risk from geologic, flood or fire hazards.*
>
> ***LUP Policy 4.3.5.*** *Require preparation of geologic and soils reports for all new developments located in the coastal zone. The report should address existing and potential impacts, including ground shaking from earthquakes, direct fault offset, liquefaction, landslides, slope stability, coastal bluff and beach erosion, and storm wave and tsunami inundation. The report shall identify appropriate hazard setbacks or identify the need for shoreline protective devices to secure long-term protection of Sand City's shoreline, and shall recommend mitigation measures to minimize identified impacts. The reports shall be prepared by qualified individuals in accordance with guidelines of the California Division of Mines and Geology, the California Coastal Commission, and the City of Sand City. Geologic reports shall include the following:*
>
> *a) setback measurements that are determined from the most inland extent of wave erosion, i.e., blufftop or dune or beach scarp; if no such feature is identifiable, determine setback from the point of maximum expected design storm wave runup;*
>
> *b) setbacks based on at least a 50-year economic life for the project;*
>
> *c) the California Division of Mines and Geology criteria for reports, as well as the following: 1) description of site topography; 2) test soil borings and evaluation of suitability of the land for the proposed use; 3) evaluation of historic, current and foreseeable cliff and beach erosion, utilizing available data; 4) discussion of impacts of construction activity on stability of site and adjacent area; 5) analysis of ground and surface water conditions, including any hydrologic changes caused by the development; 6) indication of potential erodibility of site and recommended mitigation measures; 7) potential effects of seismic impacts resulting from a maximum credible earthquake and recommended building design factors and mitigation measures; 8) evaluation of off-site impacts; and 9) alternatives (including non-structural) to the project.*

LUP Policy 4.3.6. *Encourage the clustering of developments away from potentially hazardous areas and condition project permits based upon recommendations presented in the geologic report.*

LUP Policy 4.3.7. *No development will be allowed in the tsunami run-up zone, unless adequately mitigated. The tsunami run-up zone and appropriate mitigations, if necessary, will be determined by the required site-specific geological investigation.*

LUP Policy 4.3.8. *Deny a proposed development if it is found that natural hazards cannot be mitigated as recommended in the geologic report, and approve proposed developments only if the project's density reflects consideration of the degree of the on-site hazard, as determined by available geotechnical data.*

LUP Policy 4.3.9. *Implement building setbacks from active or potentially active fault traces of at least 50 feet for all structures. greater setbacks may be required where it is warranted by site-specific geologic conditions and as determined by the geologic report.*

LUP Policy 4.3.10. *Require all new developments to be designed to withstand expected ground shaking during a major earthquake.*

LUP Policy 4.3.11. *Require the developer of a parcel in an area of known geologic hazards to record a deed restriction with the County Recorder indicating the hazards on the parcel and the level of geotechnical investigations that have been conducted.*

LUP Policy 4.3.12. *Require drainage plans for developments proposed on coastal bluffs that would result in significant runoff which could adversely affect unstable coastal bluffs or slopes.*

LUP Policy 6.4.1*. [LCP development densities] represent a maximum. As required by applicable policies of the LCP, permitted development intensities shall be limited to those which adequately address constraints including, but not limited to: public access and recreation needs (including adequate public access and recreation facilities inland of the 50-year erosion setback line); natural hazards….*

IP Section 2.2, Natural Hazards. *…all development will be sited to minimize risks from geologic, flood, or fire hazards …. A preliminary geologic report also shall be prepared by a registered geologist and should address existing and potential impacts for ground shaking from earthquakes, direct fault offset, liquefaction, landslides, slope stability, coastal bluff and beach erosion, and storm wave and tsunami inundation. …The report shall also determine a site specific tsunami run-up zone. …The report shall also provide recommended mitigation measures for identified hazards, including at the minimum, the following: …c) Recommended building setbacks for identified hazards based on at least a fifty year economic life for the project. Setback measurements shall be determined from the most inland extent of erosion; that is, bluff top or dune or beach scarp. If no such feature is identifiable, the setback shall be determined*

from the point of maximum expected design storm wave run-up. …f) Recommend mitigations, if any, for development within an identified tsunami or design storm wave run-up zone. …

IP Section 2.2, Protective Shoreline Structures. *…Setbacks shall be great enough to protect the economic life of the proposed development (at least 50 years). …*

Thus, the LCP places a premium on hazard avoidance and mitigation. In particular with respect to the dune site in question here, the LCP requires that a project be evaluated in terms of its economic lifetime and that it be setback sufficiently from the most inland extent of erosion to minimize risk and protect the development for its economic lifetime (i.e., setback from the bluff top or dune/beach scarp, or where those features aren't identifiable, from the maximum expected storm wave run-up location). All such setbacks must account for at least 50 years of such safety and stability. The development also must be stable and structural secure over its lifetime without the need for armoring or other significant engineering protections to abate hazards. The LCP requires that it be denied if the hazards cannot be so mitigated. In short, development must be sited and designed to be safe over its economic lifetime which, for LCP setback purposes, must be calculated for at least 50 years even if the identified economic lifetime for a specific project is less than 50 years.[46]

2. Site Description

The subject site lies entirely within the Monterey Bay Dune Field of Quaternary age. Although underlain at depth by sedimentary rocks and granite of the Salinian Block, borings to depths of up to 80 feet, reported in the 1987 soil feasibility study by M. Jacobs and Associates, encountered only dune sands. These dunes making up the uppermost portions of the dune field are young, active, and poorly consolidated. Older dunes containing paleosols and somewhat more consolidated sands underlie the younger deposits. The coastal bluff at the site is cut into these sand dunes, and reaches heights of as much as 80 feet. Up to 1986, much of the site was manipulated for sand mining operations. Such sand mining terminated in 1986, but vestiges of these operations are still evident in the dune landform today, including the large indentation in the center of the site where the primary sand mining occurred.

3. Project Economic Lifetime

The Applicant did not provide specific information on plans for the disposition of the project at the end of its economic lifetime. Given that LCP setback policies are specifically driven by identification of a project's economic lifetime (see, for example, LUP Policy 4.3.5 and IP Section 2.2), which in turn determines how many years must be considered in determining a safe setback distance in relation to ocean hazards, the Commission's review in this regard is hampered. For example, if the plans showed the economic lifetime as 200 years, then estimated setbacks would be based on 200 years of erosion and related effects. Such estimated setbacks would be expected to be different for a project designed for 200 years as opposed to 150 years or 100 years. In fact, the longer the project's identified economic lifetime, the further it is necessary to set it back from the ocean to avoid such hazards. This omission by the

[46] To account for situations where a project proponent identifies a less than 50-year economic lifetime to achieve a lesser setback.

Applicant raises three concerns.

First, without clarity on this point, the Commission is unable to precisely determine the degree of setback required by the LCP for the proposed project. Although relevant setbacks over time can be analyzed independently and provide a sense of to what degree the project might be found consistent over certain potential economic lifetimes (i.e., various setbacks can be identified and evaluated based on a certain number of years of erosion and related impacts), the project's precise setback in this regard cannot be determined.

Second, despite the uncertainty associated with the above, the LCP requires the Commission to evaluate at least 50 years of time with respect to erosion. Again, the 50-year minimum framework is designed to avoid situations where an applicant identifies a very low economic lifetime to achieve a very small setback, and then argues for shoreline armoring in place of removal when that time frame is reached. In other words, the LCP presumes that applicants are invested in at least a 50-year timeframe, and setbacks need to at least meet that minimum criterion.

Third, when pressed as to what would occur if and when the development were threatened by erosion, the Applicant indicated, although not in writing, that the threatened portions of the development would be removed.[47] This implies that the Applicant presumes an economic lifetime that varies over time in response to erosion. If the development is threatened in 25 years, then that would be the end of its economic lifetime and it would need to be removed. If it were not threatened until 100 years, then it would be removed at that point. Although this is not the requisite LCP framework for determining setbacks, it at least provides a mechanism for addressing issues associated with future erosion. What the Applicant's proposed response doesn't do, however, is allow the Commission to evaluate the project to know if it has been sited and designed to avoid hazards where possible. In other words, it is one thing to site a development for future safety, it is quite another to site a development with the understanding that it is being sited in harm's way and problems associated with that are addressed at a later date. In reality, the latter is the antitheses of the LCP and Coastal Act's hazard avoidance requirements, and only puts future decision makers in the unenviable role of evaluating a perhaps inevitable request to retain the development at that time of hazard, including reliance on shoreline armoring or similar measures to abate the threat.[48] Further, the LCP does not allow for consideration of a timeframe of less than 50 years.

In conclusion, although not a reason for denial by itself, this lack of clarity regarding the proposed project's economic lifetime pervades and exacerbates the project's inconsistencies with the LCP that are identified below related to appropriate setbacks from erosion and ocean forces otherwise.

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[47] Personal communication from Ed Ghandour to staff on January 30, 2009.

[48] Inadequate planning for shoreline hazards is well illustrated by the Best Western Beach Resort hotel and Ocean Harbor House condominiums downcoast from the project site, both of which were recently authorized for new seawalls, and both of which are now located out and onto the beach reducing beach recreational space, including lateral beach access. Both of these facilities pre-date Coastal Act permit requirements.

4. Hazards Affecting the Site

A. Sea Level Rise

Sea level, along with seismic uplift and subsidence, is one of the stronger drivers for long-term shoreline change along the California coast and it needs to be considered in both the analysis of inundation and bluff retreat. There is strong evidence that the historic trend of a gradual rise in sea level of 7 inches to 8 inches per century has changed and that future sea level will rise more quickly than it has in the past few centuries. Satellite observations of global sea level have shown sea level changes since 1993 to be almost twice as large as the changes observed by tide gauge records over the past century. Recent observations from the polar regions show rapid loss of some large ice sheets and increases in the discharge of glacial melt. However, the long-term trends for glacial change and sea level rise have not been determined, and the 2007 Intergovernmental Panel of Climate Change (IPCC) Fourth Assessment Report concluded that dramatic change in glacier melting was so uncertain that it could not be included in the likely changes in sea level that could be connected to the various greenhouse gas emission scenarios. Despite the uncertainty about rising sea level, coastal managers need to apply the best available information on future sea level to decisions that will affect the coast for most of the 21st century.

Extensive research has been focused recently on climate change modeling and the Commission has followed this research for information on predicted sea level change. A 2007 report prepared by Dr. Rahmstorf of the Potsdam Institute for Climate Impact Research (hereinafter "Rahmstorf Report)[49] has become the central reference point for much of recent sea level rise planning. As explained in more detail below, the Rahmstorf Report projects that by 2100, sea level could be between 20 to 55 inches higher than 1990 levels. In California, the Rahmstorf Report has been used by numerous public entities to project sea level rise for planning purposes. For example, a Blue Ribbon Task Force convened to provide direction for the San Francisco Bay Delta recognized that accelerated sea level rise had to be part of the Delta planning effort (DeltaVision) and used the Rahmstorf Report to recommend that 55 inches of sea level rise by 2100 be used for planning purposes. The Rahmstorf Report was used in the California Climate Action Team's Climate Change Scenarios for estimating the likely changes range for sea level rise by 2100[50]. Two recent draft reports were prepared for the Ocean Protection Council, California Energy Commission, and other agencies by Philip Williams and Associates[51] and the Pacific Institute[52] to identify impacts from rising sea level. These reports use the Rahmstorf Report as the basis to examine the flooding consequences of both a 40-inch and a 55-inch rise in sea level, and the erosion consequences of a 55-inch rise in sea level.

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[49] Rahmstorf, S, 2007. "A Semi-Empirical Approach to Projecting Future Sea-Level Rise," *Science*, v315,368-370.

[50] Cayan et al. 2009. Draft Paper: Climate Change Scenarios and Sea Level Estimates for the California 2008 Climate Change Scenarios Assessment; CEC-500-2009-014-D, 62 pages.

[51] Philip Williams & Associates, LTD (2009), Final Draft Report: California Coastal Erosion Response to Sea Level Rise – Analysis and Mapping, prepared for the Pacific Institute.

[52] Heberger, M., H. Cooley, P. Herrera, P. Gleick, and I. Moore (2009), Draft Paper: The Impacts of Sea-Level Rise on the California Coast, CEC-500-2009-024-D.

The Rahmstorf Report developed a quasi-empirical relationship between historic temperature and sea level change. Using the temperature changes projected for the various IPCC scenarios, and assuming that the historic relationship between temperature and sea level would continue into the future, he projected that by 2100 sea level could between 20 inches and 55 inches (0.5 to 1.4 meters) higher than the 1990 levels (for a rate of 0.18 to 0.5 inches/year). These projections for future sea level rise anticipate that the increase in sea level from 1990 to 2050 will be from about 8 inches to 17 inches (for a rate of 0.13 to 0.28 inches/year); from 1990 to 2075, the increase in sea level would be from about 13 inches to 31 inches (for a rate of 0.15 to 0.36 inches/year) and that the most rapid change in sea level will occur toward the end of the 21st century. Most recent sea level rise projections show the same trend as the projections by Rahmstorf – that as the time period increases the rate of rise increases and that the second half of the 21st century can be expected to have a more rapid rise in sea level than the first half.

Absent projections by the IPCC that incorporate possible accelerated contributions from glaciers and ice in polar regions, projections from this Rahmstorf study have become the basis for much of the recent sea level rise planning discussion. It was expected that the 2007 IPCC Report would provide good guidance for planning purposes, but the report failed to reach consensus on how to include fully possible future contributions to sea level from glaciers and ice in polar regions, and therefore the 2007 IPCC Report is not used for this purpose. For the various scenarios of future energy use, the published sea level rise tables actually anticipate less rise in sea level by 2050 and 2100 than predicted by the 2001 IPCC Report.

None of these reports or studies that consider a 55-inch rise in sea level by 2100 asserts that this amount of sea level rise will occur exactly in the year 2100. The observed trend for global sea level has been a persistent rise, and the reports have considered the 55 inches of rise to be useful in encompassing the probable rise that could occur over the next 90 or 100 years. This amount of sea level rise does not represent the extreme rise that might occur if the rate of glacial melting accelerates quickly and continues over several decades. It also does not represent the extreme low rise in sea level that might occur if current trends for global temperature flatten or reverse.

Direction on sea level rise to coastal permit project applicants is in flux. The old process of extrapolation from historic trends is no longer sufficient, and an upper planning limit has not been established. Since erosion and flooding hazards tend to increase in severity with an increase in sea level, it is prudent planning to examine the consequences from the higher projections for future sea level rise. In the case of the proposed project, Commission staff requested that the Applicant analyze the effects of sea level rise over the economic lifetime of the development under three different scenarios that assumed future sea level rise rates of 5 mm/year, 10 mm/year, and 15 mm/year (0.2 inches/year, 0.4 inches/year, and 0.6 inches/year respectively). The purpose for this analysis was to determine whether any of these possible sea level trends would result in significant impacts to the proposed development over its economic lifetime, or if facilities at risk would change significantly with a change in the assumptions for rising sea level. The rates used in the analysis are generally consistent with the rates identified from historic trends, the 2007 IPCC report and the work by Dr. Rahmstorf. The analysis of sensitivity to sea level was undertaken both for analysis of erosion and of flood risk. Since there is great

uncertainty concerning future sea level and absent certainty that historic trends can project future conditions, these three possible trends were recommended as a way to understand the possible project impacts in the face of this uncertainty.

B. Seismicity

The site is located in a seismically active area and there is a high probability that the site will be subject to strong ground motion during the economic life of the development. There are no active faults on the site, but several, including the San Andreas, San Gregorio, Tularcitos, King City, and Chupines Faults pass within 25 miles of the site. In a letter report dated February 10, 1998, Haro, Kasunich and Associates (HKA) estimate an average maximum horizontal peak acceleration for the soils making up the site to range from 0.1 to 1.0 times the force of gravity. The Applicant has not submitted seismic design criteria, but it doe s not appear that there are any extraordinary design considerations that would significantly affect siting and design to meet fault setback criteria as required by LUP Policy 4.3.9, and to withstand expected ground shaking during a major earthquake as required by LUP Policies 4.3.5 and 4.3.10. If the proposed project were otherwise approvable, these seismicity issues could be addressed through conditions of approval.

C. Liquefaction

Most of the soils at the site consist of unconsolidated sands. Such soils are susceptible to liquefaction given a sufficiently high water table. During the winter season, it is reasonable to assume that the water table could reach potentially liquefiable soils and the soils could liquefy during major ground shaking associated with an earthquake. Cone Penetrometer Testing was performed in 1987 at the site as part of a preliminary geotechnical study for a previously proposed project.53 Using these data, together with soil borings, the depth to older dune deposits underlying the active modern dunes was determined and mapped on cross sections. These older dune deposits are generally found at elevations below about 35 feet National Geodetic Vertical Datum (NGVD)54, and they appear to be dense enough to resist liquefaction. The 1987 report recommends founding larger buildings in these deposits, which can be accomplished using deepened foundations, piles, or caissons, as are proposed. It does not appear that there are any extraordinary design considerations that would significantly affect siting and design to address LCP liquefaction provisions at this location, including if development were to proceed as recommended in the 1987 report to mitigate liquefaction hazards as required by the LUP Policy 4.3.8. If the proposed project were otherwise approvable, this liquefaction issue could be addressed through conditions of approval.

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[53] Preliminary geotechnical study, proposed Monterey Bay Dunes Beach Hotel and Condominiums, by GeoConsultants, August 1987

[54] National Geodetic Vertical Datum of 1929 (NGVD29 or NGVD) is a vertical control datum. It was established throughout the United States in 1929 through a general adjustment and is used to establish vertical control for survey purposes. NGVD29 was generally equivalent in 1929 to mean sea level (MSL) but as sea level has changed MSL and NGVD29 have become different. In the Sand City area, NGVD29 is now 0.23 feet lower than MSL. Due to a more recent general adjustment, the North American Vertical Datum of 1988 (NAVD88) has replaced NGVD29 as a vertical control and it is gradually being incorporated into land surveys. In the Monterey area, NGVD29 is still used commonly by many communities.

D. Tsunami

LCP Policy 4.3.7 prohibits development in a tsunami run-up zone unless it includes adequate mitigation of the tsunami threat. A February 3, 2009 HKA letter report applicable to the site notes on page 6 that a 1984 report by Dr. Warren Thompson has indicated that "the 100-year tsunami run-up elevation for the shoreline of Sand City is 6 feet NGVD and the predicted 500 year tsunami run-up elevation for the shoreline of Sand City is 11.7 feet NGVD." However, it does not appear that this 1984 assertion remains current and up to date, nor can be used as a baseline from which to measure consistency with LCP tsunami requirements. In fact, tsunami awareness and information on triggering mechanisms has increased greatly over the past 25 years, stimulated in part by the Indian Ocean tsunami and, for California coastal areas in particular, by the increased understanding of the Cascadia subduction zone and its potential for generating tsunami waves that could be comparable to those experienced in Sumatra in 2004. In addition, the potential for submarine landslides to generate tsunamis has gained or regained recognition following a large landslide-triggered tsunami in Papua New Guinea in 1998. The awareness of a large tsunamigenic source off the California Coast, the improved understanding of landslide generated tsunamis, and the experiences, eye-witness accounts, and post-disaster surveys from the Indian Ocean, have all contributed to an interest by the State of California to have a more up-to-date evaluation of tsunami risks along the coast.

At the present time, the California Emergency Management Agency (CEMA) is preparing new tsunami inundation zone maps for much of the state; Monterey is an area that has been analyzed and the map products should be released for review by the County sometime in 2009. Commission staff has had the opportunity to review draft maps for other parts of the state, and, based on inundations zones for other coastal areas, it is very likely that the new inundation zones for Sand City will be significantly higher than the run-up elevations of 6 feet to 11.7 feet NGVD provided 25 years ago by Dr. Thompson. Current estimates are that maximum tsunami run-up can, in some locations, be 10 to 13 meters (33 to 40 feet).[55] Such information has been available for several years and could have been considered by the Applicant in determining tsunami risk, rather than relying upon a 25-year old report without looking for newer material or contacting those agencies charged with developing current tsunami risk information.

The soon-to-be released maps for Monterey County will give some good indications of the likely tsunami risk for areas near the proposed development. Mapping will be based on the current site conditions with the existing dune height. Even if the maximum run-up elevation for this area is estimated to be 10 meters (33 feet), the inundation zones would, most likely, not show the proposed building location to be at risk since the sand dunes currently exceed this elevation and provide a natural barrier to tsunami inundation. The building elevation of 32 feet NGVD should be at the upper limit of tsunami inundation. However, the removal of the fore dune crests as is proposed with the project would worsen the potential risk. The best mitigation steps for tsunamis are setback distance and elevation. The proposed removal of the dune crest would reduce the primary tsunami protection for this property and could potentially result in expansion of the potential inundation zone into the back dune area – an area

[55] These estimates for maximum wave runup have been published in several recent reports. One reference is the Quake '06 Tsunami Fact Sheet: http://www.quake06.org/quake06/best_practices/fact_sheets/TsunamiR4.pdf.

that most likely would have been outside the inundation zone in the near term if the dune crests were to remain in place. Of course, sea level rise would also need to be factored in over the design life of the proposed project; the Applicant has not submitted either of these analyses.

The tsunami risk needs to be examined for the proposed site modifications, using the same modeling, assumptions and input variables as were used for the CEMA inundation mapping effort to determine the actual tsunami risk, based on more recent modeling approaches and understanding of tsunamigenic sources. Since the tsunami hazard needs to anticipate possible tsunami inundation risks for the next 50 or more years, the inundation analysis should also include sea level rise of either the range of rates used for erosion and waves, or the maximum 15 mm/year (0.6 inches/year) rate, over time.

Based on the information provided to date, there is not adequate assurance either that the proposed development will avoid the tsunami run-up zone or that adequate mitigation has been developed. As such, the proposed project cannot be found consistent with LUP Policy 4.3.7 and IP Section 2.2. Furthermore, the proposed grading of the fore dunes would worsen any future tsunami inundation risk, would be counter to any mitigation efforts, and likewise cannot be found consistent LUP Policy 4.3.7 and IP Section 2.2. In addition, the proposed project cannot be found consistent with LUP Policies 4.3.6 and 4.3.8 because it cannot be assured that development has been clustered away from potentially hazardous areas or that all natural hazards have been mitigated with respect to tsunami. The Commission therefore finds the proposed project inconsistent with the LCP's tsunami policies.

E. Wave Run-Up/Flooding

LUP Policy 4.3.4 and IP Section 2.2 require that all development be sited and designed to minimize risk from geologic, flood or fire hazard. These LCP provisions do not limit the source or sources of the flood rise described. Oftentimes for projects adjacent to the coast it is the flooding from waves and wave run-up that is the most critical flood concern. Flooding from surface runoff and sheet flow can be significant, but in most situations it can be addressed with proper site design and drainage. Flooding by wave run-up, however is a different phenomenon, and is less easily addressed through site design. Such flooding is explicitly identified as a core hazard avoidance criterion by the LCP, including requiring setbacks to be based on the maximum expected storm wave run-up (LUP Policy 4.3.5 and IP Section 2.2).

In general, the evaluation of wave run-up combines both changes to the beach or dunes with the changes in water conditions to determine the wave run-up. Since concern for wave run-up and flooding can occur any time during the project life, the analysis of wave run-up is based on long-term erosion of the beach and dune and seasonal recession of the beach. The wave conditions are assumed to be from a storm comparable to the 100-year event (or the storm which has a 1% annual chance of occurrence, a large but not improbable event) during a high water level condition. Since storms can last for several hours, it is highly likely that part of a storm event will coincide with high tide. And, as with erosion, the storm event could occur anytime or several times during the project life, so sea level is normally increased by the sea level that could occur over the project life. Thus, the beach conditions for determining flooding from a 100-year storm event include both long-term erosion and seasonal erosion

and the water conditions include high tide and sea level rise.

There have been several different studies of wave run-up for this property; one study was prepared for the Sterling Environmental Center (APN 11-012-05; a project proposed previously for this site) and the Applicant's consultant (Haro, Kasunich and Associates or HKA) provided an analysis of this report.[56] In addition, the Applicant's consultant has analyzed wave run-up for a range of wave conditions.[57] These analyses are summarized below.

- Sterling Environmental Center wave run-up analysis by Dr. Thompson (reports not provided, only summarized in HKA 12 August 1997): predicts 27 ft NGVD average run-up, 30 to 31 ft NGVD for 20% inundation and 32 to 34 ft NGVD maximum run up. Wave analysis was prepared for the 50-year storm event, and based on 65 years of historic observations. Since this analysis was based on historic observations the analysis would include tide conditions, but would not include effects of sea level rise. The analysis was only for a 50-year storm event and while the observations indicate the elevation of the dunes that could be subject to flooding, but they do not indicate the inland locations that would be subject to flooding after the dunes have been altered by seasonal or long-term erosion. This analysis was not revised for the development currently proposed for the site, but it was presented by HKA to show that their analysis was in line with previous work for the same location.

- The 12 August 1997 HKA letter report predicts an extreme storm wave run up elevation of 35 to 48 feet NGVD, but recommends that wave run-up of 30 ft. NGVD for a 100-year storm is acceptable, based on the work done previously by Dr. Thompson and on their experience with computer generated wave run-up in the region. No quantitative analysis for this value was provided, nor are the assumptions for tide conditions or sea level rise. The recommendation covers only the elevation of the dunes that could be subject to flooding, and does not indicate the inland locations that would be subject to flooding after the dunes have been altered by seasonal or long-term erosion. The changes to the dunes are addressed in the analysis of bluff retreat.

- In October 2000, HKA prepared an Update Geotechnical Engineering Report for Monterey Bay Shores Mixed Use Resort[58] that examined wave run-up as part of the bluff retreat study. In this report, high tide and atmospheric forcing conditions were included in the water elevation, along with a projected long-term sea level rise of 1 foot to provide a recommended design wave run-up elevation of 30 ft NGVD, similar to the recommendation from their 1997 report. As with the

[56] Haro, Kasunich and Associated, Inc. 12 August 1997 Letter Report to Mr. Ed Ghandour "Response to Additional Information Requested by David Powers Associates, San Jose, To Prepare and EIR for the Monterey Bay Shore Project", (Project No. M5613) Cover page shows date to be August 12, 1997; pages 2 and 3 of report show date to be 12 September 1997.

[57] Haro, Kasunich and Associates, Inc. 3 February 2009 Letter Report to Mr. Ed Ghandour, concerning Coastal and Geotechnical Hazards, Monterey Bay Shores Resort, Sand City, Monterey County, CA. and HKA 12 August 1997 Letter Report to Mr. Ed Ghandour concerning Monterey Bay Shores, Sand City, CA.

[58] Haro, Kasunich & Associates (October 2000) Update Geotechnical Engineering Report for Monterey Bay Shores Mixed Use Resort, Project No. M5613

other recommendations for wave run-up, the 30 ft. NGVD run-up estimate only addressed the elevation of the dunes that could be subject to flooding and it does not indicate the inland location that would be subject to flooding after the dunes have been altered by seasonal or long-term erosion. The changes to the dunes are addressed in the analysis of bluff retreat.

- The October 2000 HKA report also estimates the run-up that could be expected if a tsunami were to occur at the same time as a major ocean storm run-up event by adding 3.5 feet to the recommended 30 ft design wave run-up. This combined event is not regularly part of an analysis of wave run-up. However, the synergistic interactions between the two events that would require a more detailed modeling effort than the mere addition of two independent elevations. The combined tsunami and major storm run-up analysis may include consideration of high tide and a 1-foot increase in sea level, but the omission of any consideration for the synergistic interactions between the two events is a serious flaw in this analysis.

- The 3 February 2009 HKA report[59] was prepared in response to requests from the Coastal Commission staff to examine wave run-up for a range of possible future sea levels (from 1.6 to 5.5 feet in 100 years). The expanded analysis by HKA examined wave run up for sea level rise of 3.3 feet and 5 feet in 100 years, includes this rise by adding it to the current flood elevation, stating, "(if) future sea level rises at 10mm/yr for 100 years (3.3 feet total) or 15 mm/yr for 100 years (5 feet total) then the Base Flood Elevations at the time would be at least 3.3 to 5 feet respectively higher than they are now, and we expect the MBSR buildings will be flooded during a 100 year flood event" (HKA 2009, page 7).

Normally an analysis for wave run-up examines both the changes to beach and dune conditions and the changes to the water levels. For this project, the analyses of the changes to the beach conditions were included in the analysis of bluff retreat and have been separated from the run-up analysis. The wave run-up analyses that were prepared for this project thus looked only at the expected run-up elevation on the existing dune slope. The analyses did not examine the configuration of the dunes or the Applicant's proposed dune grading. The analyses find that wave run-up can be up to 48 feet NGVD for extreme conditions, and approximately 30 feet NGVD for the 100-year storm event – the event typically used for design conditions. This elevation included high tide conditions, elevated water conditions due to atmospheric forcing and 1 foot rise in mean sea level. FEMA is now revising its flood maps for this area and the draft maps recommend 27 ft NGVD as the 100-year Base Flood Elevation. The FEMA flood elevations do not take sea level rise or atmospheric forcing into account and at not used in place of site-specific analysis for coastal designs, but the 100-year flood elevation from FEMA is in general agreement with the 100-year wave run-up elevation. The HKA analysis appropriately estimates the 100-year storm wave run-up to be 30 feet NGVD, given the assumptions that there will be only one-foot of sea level rise.

[59] Haro, Kasunich and Associates 3 February 2009 Letter Report to Mr. Ed Ghandour concerning "Coastal and Geotechnical Hazards, Monterey Bay Shores Resort, Sand City, Monterey County, CA (Project No. M.5613)

However, when sea level increases more than the modeled one-foot of rise, the flooding risks increase, and the HKA report found "(if) future sea level rises at 10mm/yr for 100 years (3.3 feet total) or 15 mm/yr for 100 years (5 feet total) … we expect the MBSR buildings will be flooded during a 100 year flood event" (page 7).

The analysis by HKA of flooding sensitivity to sea level rise shows that it is only a matter of time until the proposed development is flooded. The proposed grading of the dune crest will hasten the period of time that the proposed development and some adjacent properties will be at risk from flooding. HKA's findings support a conclusion that the proposed development is likely to be safe from significant flooding for the coming 50 years. The analysis does not support a conclusion that the proposed buildings will be safe for any period of time beyond the 50-year time period, or even for the proposed 50-year time period if sea level rise exceeds the projected rise of only 1 foot in the coming 50 years. And, while the wave run-up analysis identified the expected inundation elevation at fifty years, it does not provide information on the safe inland building envelope location that derives from such an analysis, nor does it extend such analysis beyond fifty years. The current 32-foot contour will retreat significantly over time and the safe inundation condition needs to be considered in conjunction with unaltered dune crest, the safe bluff setback area that takes into account beach erosion and long-term bluff retreat, and the project economic lifetime.

Even without consideration of bluff retreat, the proposed development cannot be found safe from anticipated future flood conditions; the flooding risk will increase when bluff retreat is also considered (see discussion below). Based on analysis of current and future flood risks, the proposed project has not been designed or sited to minimize risk of flood hazard, and thus it cannot be found consistent with LUP Policy 4.3.4 and IP Section 2.2. Furthermore, the proposed grading of the foredunes would worsen any future flood risk, would be counter to any mitigation efforts, and likewise cannot be found consistent LUP Policy 4.3.4 and IP Section 2.2. In addition, the proposed project cannot be found consistent with LUP Policies 4.3.6 and 4.3.8 because it cannot be assured that development has been located out of potentially hazardous areas or that all natural hazards have been mitigated with respect to wave run-up/flooding. Thus, the Commission finds the proposed project inconsistent with the LCP's wave run-up and flooding policies.

F. Slope Stability

In establishing LCP-required development setbacks, it is necessary to ensure stability throughout the life of the development. Because coastal bluffs are generally unstable, development must be set back a sufficient distance to ensure stability throughout its economic lifetime. Generally, this is done through applying a quantitative slope stability analysis to the shoreline erosion/retreat analysis. Barring significant geologic differences between the landforms present today and those expected to be present at the end of the economic lifetime period, the amount of setback necessary to assure stability today can added to the expected amount of shoreline erosion/retreat to arrive at a total setback that will ensure stability at the end of the development's economic lifetime.

Regarding a quantitative slope stability analyses for the project site. the Applicant's consulting engineers, HKA, pointed out that the methodology they used to arrive at setback line inherently assumes that the bluff will eventually reach and maintain a 2:1 slope, and sets development behind that line. As HKA states:

> *The projected final 2:1 dune bluff slope as required by the updated methodology has an inherent factor of safety of at least 1.6 and is a very conservative representation of long term, stable sand dune bluff gradients.*

The Commission concurs that setting back development behind a projected 2:1 slope measured from the expected bluff toe that is based on expected retreat over the project's economic lifetime likely offers a more conservative setback than is to be obtained by a slope stability analysis. However, although the methodology is sound, the assumptions underlying the derivation of the bluff toe, including in relation to economic lifetime, are not, as described in the preceding discussions. Accordingly, the Commission finds that the approach to assuring the safety of the development from slope instability as presented in the HKA report is adequate. However, as discussed below, because of incorrect assumptions regarding future shoreline erosion/retreat rates, and the lack of an identified, determinate economic lifetime against which to apply setbacks otherwise, the design setback proposed by the Applicant is not sufficient to assure stability, avoid hazards, and mitigate those that are unavoidable over the economic life of the development as required by LCP, including LUP Policies 4.3.5, 4.3.6 and 4.3.8, and IP Section 2.2. Again, as with the analyses above and for the same reasons, conditions are not available nor appropriate that can adequately resolve the LCP inconsistency in this respect. Thus, the Commission finds the proposed project inconsistent with the LCP's slope stability policies and denies the CDP.

G. Shoreline Erosion/Retreat

Shoreline erosion and retreat are significant hazards in the Sand City area that must be addressed under the LCP, including through the application of appropriate setbacks as dictated by LUP Policy 4.3.5 and IP Section 2.2. Because of the unconsolidated nature of the sandy dunes here, and the exposure of southern Monterey Bay to high wave energy, this region has among the highest long-term bluff retreat rates in the state. The LCP states that average annual erosion rates range between 1.4 and 5 feet per year.[60] The United States Geological Survey (USGS) has recently reported long term (70 to 100 years) and short term (30 to 40 years) trends for bluff retreat for the open ocean coast, and the Sand City area is highlighted for its high erosion rates. In addition, there has been substantial erosion of beaches in the area, particularly when bluff retreat has been halted by the construction of seawalls and other shoreline protective devices. As USGS indicates in its 2007 report in relation to the Monterey Bay region:

> *The highest [retreat] rates were measured in Southern Monterey Bay, where bluffs are formed in nitrified Quaternary sand dunes. The erosion rate increases to the south…and was highest (-1.8 m/yr) where there has been a long history of sand-mining of the dunes (Thornton et al. 2006) ….*

[60] LUP Section 4.2.1.

> *The amount of retreat [at Stillwell Hall, Fort Ord] measured over the 70-year time period was ~116 m.*[61]

USGS's 2007 analysis and identification of retreat, including 116 meters (382 feet) of retreat at the former Fort Ord military base (now Fort Ord Dunes State Park), was based on a comparison of historic and current cliff edge positions. The historic cliff edge was estimated from 1932/33 aerial photographs, and the current cliff edge was estimated from a 1998 LIDAR survey.[62] The USGS analysis shows an average annual long-term retreat rate of about 1.8 meters per year (or 5.9 feet per year) for the Sand City area, which is a greater erosion rate than is identified in the LCP.

Erosion in the Sand City area cannot be analyzed without consideration of historic and ongoing sand mining. The time period of cliff retreat for the USGS analysis includes the time period when drag lines and dredge pond mining were occurring in the Marina (upcoast) and Sand City areas. The Draft Coastal Regional Sediment Management Plan (CRSMP) for Southern Monterey Bay, prepared by Philip Williams and Associates, provided information on sand mining in the area.[63] In general, there was about 111,000 cubic yards per year of sand mining at Sand City up until 1990, and 33,000 cubic yards per year from Marina. Most of these operations ceased in the late 1980s and early 1990s, leaving the sand dredge pond in Marina as the only currently active mining effort in the southern Monterey Bay. If sand mining were to decrease or stop, and that sand allowed to stay in the system as opposed to exacerbate erosion, the identified historic retreat rates of 5.9 feet per year would be expected to represent an upper limit for such retreat. However, the CRSMP found that the volumes mined from the Marina dredge pond have increased over time to current rates of 200,000 cubic yards per year, reducing or muting the shoreline retreat benefits from closing out the drag line operations. The CRSMP documents significant increased erosion rates in erosion since 1984, and attributes this likely to the increased mining volumes in Marina.[64] The effects from the increased volume of sand extracted at Marina may take several years to propagate downcoast to Sand City and the recent trends in shoreline change for the 1984 to 2004 period for Sand City that show a relatively low rate of bluff erosion may represent an abnormal lull in erosion once the effects from the increased mining in Marina reach this location.

In 1990, the City of Sand City adopted a resolution (SC-21) accepting a 1989 shoreline erosion study performed by Moffatt and Nichols and directing City staff to consider the findings and projections of the report when reviewing applications for development west of Highway One. In earlier project proposals for development west of Highway One, this 1989 report was helpful in projecting the location of the mean high tide line under low-, medium-, and high-risk scenarios. It is bluff erosion, not the location of the mean high tide line per se that most directly threatens development in this area. Although the level of wave run-up and flooding must be considered, where high bluffs occur it is more likely that bluff

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[61] "National Assessment of Shoreline Change, Part 4: Historic Coastal Cliff Retreat along the California Coast" by Cheryl Hapke and David Reid (Open File Report 2007-1133).

[62] LIDAR stands for Light Detection and Ranging, and is a process of using pulses from airborne lasers to determine topography.

[63] Draft Coastal Regional Sediment Management Plan for Southern Monterey Bay, Philip Williams and Associates, November 3, 2008.

[64] *Id.* p. 87.

retreat and slope stability will determine when development is threatened.

Accordingly, in 2003 the City hired HKA to prepare a "Coastal Recession Evaluation" which, by estimating typical equilibrium beach and dune profiles, developed an estimate of future bluff edge positions. This was not based solely on analysis of historical bluff retreat, but also accounted for sea level rise and slope flattening through time. HKA's methodology was essentially as follows:

- Multiply the historic long-term bluff retreat rate calculated from examination of aerial photographs (2.4 feet per year) by 50 years to establish the amount of shoreline retreat expected in 50 years (120 feet).[65]

- Add to this an amount of shoreline retreat expected due to sea level rise. Using the Bruun Rule (see below) and an estimated 0.6 feet of sea level rise over the next 50 years, together with assumptions about the closure depth of the shore profile, they calculated an additional 7 feet of shoreline retreat due to sea level rise.

- Assume an equilibrium condition in which beach width remains constant as the shoreline moves landward. The equilibrium beach, based on measurements taken in 2003, was assumed to have a slope of 7:1 and a depth of 105 feet. The landward end of the beach, measured from the estimated 2053 mean high tide position, is taken to be the 2053 toe-of-bluff.

- Assume bluff slope stability could be established by a 2:1 slope of the bluff face, an assumed worst-case for slope flattening through time. Where this 2:1 slope intersects current topography is assumed to be the position of the 2053 top of slope and is a taken to be a development setback line.

Using this methodology, HKA established a 2053 bluff crest recession line for all of Sand City, including most of the project site. The Applicant's engineers, Bestor Engineers, used the same methodology to identify an estimated 2058 bluff recession line across the project area. They used similar methods to also identify an estimated 2083 bluff recession line. These lines were reviewed and reanalyzed by HKA, who concluded in their memo dated June 19, 2008 that:

> *Based on our reanalysis, we determined that the setback line labeled by Bestor as an approximate 2083 bluff crest recession line (a 75-year estimated setback line) is probably at least a 70 year or greater setback line. Our reanalysis included an added factor of safety, an increase in estimated setback due to Bruun Rule recalculations and a higher estimate of sea level rise during the 75 years compared to 50 years.*

Commission staff objected to some of the input information used to develop these setback lines and to the methodology. The erosion rate of 2.4 feet/year is less than half the 5.9 feet/year erosion rate calculated by Hapke and Reid from historic trends, the analysis of sea level rise impacts used a low rate

[65] Again, fifty years is an LCP minimum requirement, but each project must be set back to achieve safety and stability over its own economic lifetime, which may be 50 years, but also may be more than 50 years.

of sea level rise, and the slope stability analysis was not quantitative in nature. Despite additional material submitted by the Applicant in support of the proposed project, the resulting setback line cannot be found adequate to assure protection of the facilities over 50 years, let alone an economic lifetime of more than 50 years.

At the request of Commission staff, HKA analyzed the effects of various scenarios for future sea level rise on bluff recession. HKA made use of the Bruun Rule in estimating the amount of bluff retreat that would occur due to sea level rise. According to the U.S. Army Corp's Coastal Engineering Manual:

> *The basic assumption behind Bruun's model is that with a rise in sea level, the equilibrium profile of the beach and the shallow offshore moves upward and landward. Bruun made several assumptions in his two-dimensional analysis:*
>
> - *The upper beach erodes because of a landward translation of the profile*
> - *Sediment eroded from the upper beach is deposited immediately offshore; the eroded and deposited volumes are equal (i.e., longshore transport is not a factor)*
> - *The rise in the seafloor offshore is equal to the rise in sea level.*

These limitations, particularly the assumption of the maintenance of an equilibrium profile and the requirement that there is no net longshore transport, place severe limitations on the application of the Bruun Rule. At best, values of bluff retreat arrived at through application of the Bruun Rule can be thought of as long-term values to which the beach and bluff system will trend, over some unspecified amount of time. Further, these values are only rough approximations due to uncertainty in longshore transport and the horizontal and vertical limits of the equilibrium beach/shore profile.

The analysis of sea level rise by HKA provides a table that shows some of the more scrutinized sea level projects and includes the projections in the Rahmstorf Report for consideration. The report analyzed changes in bluff retreat for the various trends in sea level using the same modified Bruun rule methodology described above and found, as would be expected, that bluff retreat would increase with a rise in sea level. The analysis attempted to isolate the influence of sea level rise from other erosive forces, using a rather simple, geometric shoreline change model. With this compartmentalized analysis, the HKA report found that the baseline trend of 0.6 feet per year (3 mm/year) of sea level rise in 50 years was expected to result in an additional 7 feet of retreat in 50 years; 5mm/year sea level rise would result in an additional 23 feet of retreat in 50 years; 10 mm/year sea level rise would result in an additional 39 feet of retreat in 50 years; and 15 mm/year sea level rise would result in an additional 58 feet of retreat in 50 years. These additional bluff retreat estimates were added to the total shoreline recession from the 2003 Sand City Report to show total retreats ranging from the baseline of 152 feet in 50 years, to 203 feet in 50 years. The variation in bluff retreat of almost 60 feet in 50 years depending on base assumptions indicates that these bluffs will be very sensitive to sea level rise, and if estimated bluff retreat (and associated proposed bluff setbacks) underestimate future sea level rise, they likely also greatly underestimate the necessary safe bluff setback.

In March 2009 the Pacific Institute released a report evaluating the impacts of future sea level rise on the California coast. Using sea-level rise forecasts developed for the California Climate Action Team by researchers at Scripps Institution of Oceanography of 1.0 and 1.4meters by 2100 (for low- and moderate-greenhouse-gas-emissions scenarios, respectively), it evaluated the effects of sea level rise on the area inundated by a 100-year storm event and on increased dune and bluff erosion rates. A key product was a set of hazard maps showing the area inundated by the 100-year storm event today and in the year 2100, and the zone at high risk from coastal erosion by the year 2100.

The analysis shows that a large part of the site would be subject to erosion, with the 2100 critical erosion zone ranging from 250 to 500' from the current bluff face (see Figure 1). Inundation hazards are identified along the dune face and in the depression (borrow pit) in the southern portion of the site. The analysis in the Pacific Institute study did not examine the inundation risks for either the proposed lowering of the frontal dunes or for the combined impact of erosion and flooding. In general, however, the Pacific Institute analysis identifies hazard conditions similar to those analyzed by Commission staff and confirms that the added impact of sea level rise to the erosion and inundation hazards could significantly increase site hazards in the future.[66]

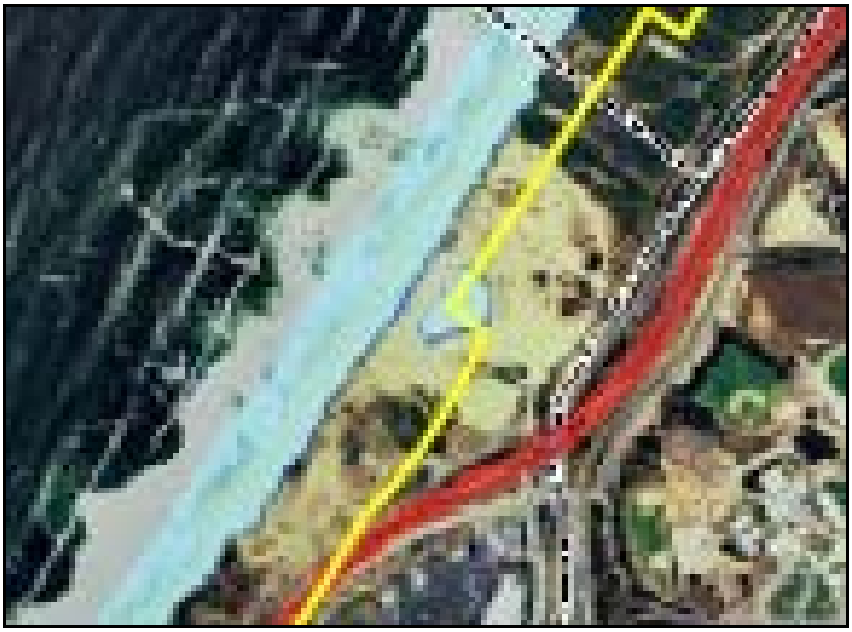

Figure 1. Pacific Institute Sea Level Rise Hazards

[66] This analysis is based on the interaction of multiple variables, including relatively site specific erosion rates, deep water wave estimates from San Francisco and regional projection of those waves to the Monterey coast, and nearshore waves and water depth from the Sand City area.

In addition to more recent data on sea level rise, additional data have become available from studies by the U.S. Geological Survey and the Naval Postgraduate School that indicate that the bluff recession rates used by HKA and Bestor may be far lower than those to be expected over the economic life of the development. As stated above, the erosion rate of 2.4 feet/year used by HKA is less than half the 5.9 feet/year erosion rate calculated by the U.S. Geological Survey (Hapke and Reid, 2007) from historic trends. Dr. Ed Thornton of the Naval Postgraduate School measured erosion rates over the time period 1940-1984 of 6.4 ft/yr. Although the rate apparently dropped to 2.6 ft/yr between 1984 and 2004, this lower rate is not expected to continue as sea level rises and as the effects of increased sand mining in recent decades at the Marina CEMEX sand mine become felt in the study area. Accordingly, the Commission finds that the setback lines established by HKA are not adequate to ensure stability for the life of the development as required by LCP Policies 4.3.8 and 4.3.9. Accordingly, the project cannot be found consistent with LCP Policies 4.3.8 and 4.3.9.

6. Staff Recommendation for Design Setback

Probably the best site-specific data available are those reported in Thornton et al. (2006) and Hapke and Reid (2007). These reports are in close agreement and report that the coastal bluffs at Sand City have experienced the largest long-term bluff retreat rates in the Monterey Bay area, and are among the highest in the state. Thornton (2006) determined the amount of recession of the "dune top edge" from aerial photographs and LIDAR data extending from 1940 to 2004 at nine locations along the southern Monterey Bay shoreline. These locations were identified by their distance from Wharf #2 in Monterey. These authors assign a location of 5.6 km north of Wharf #2 for the subject site. This location is bracketed by locations at which the bluff edge retreat rates were measured, at 5.6 and 6 km north of Wharf 2. For the period 1940 to 1984, both locations give nearly identical long-term bluff retreat rates of 1.93 and 1.94 m (6.3 and 6.4 ft) per year. The bluff retreat rate for the interval 1984-2004 was only available from the northernmost site, and it had decreased to 0.8 m (2.6 ft) per year. The average of the entire interval, 1940 to 2004 was 1.54 m (5.1 ft) per year. These values are in close agreement with 1.8 m (5.9 ft) per year reported by Hapke and Reid for 1932 through 1998.

Thornton et al. attribute the reduction in the bluff retreat rate in the latter time period (1984-2004) to the cessation of sand mining in the Sand City area. It might be argued that this lower rate is the appropriate value to use for extrapolation into the future, given that there is little likelihood that sand mining in the region will resume. However, as discussed above, extraction volumes from the dredge pond at Marina have been reported to have significantly increased over time and the influence of this increased extraction would not have been captured by the shoreline trend analysis from 1984 to 2004; this time period could represent an aberrant lull in the effects of sand mining on the Sand City shoreline – between the end of the drag line effects and the before the effects of increased dredge pond mining.

In addition to the uncertainty for shoreline change with the reported increased sand extraction at Marina, there also needs to be consideration for the erosion effects of sea level rise. With continued sea level rise, the base of the bluff will be exposed to high tide and storm waves for greater periods of time during any given year, and bluff retreat rates will necessarily increase. As discussed previously, sea level is

clearly rising, and appears to be rising at an accelerated pace. In order to account for the expected increase in the bluff retreat rate resulting from accelerating sea level rise, the Commission has typically used the *greatest* measured historic rate, rather than the mean or lower value, in calculations of future bluff retreat. While it is true that the Bruun Rule approach, described above and used by HKA (2003) to address sea level rise, may be used to estimate the effects on ultimate bluff retreat due to sea level rise, the limitations in the approach described above—especially the assumption of the maintenance of an equilibrium profile—lead the Commission to find this approach to be inadequate to quantitatively address future bluff retreat rates, although the equilibrium values thus derived may certainly be used for general guidance.

The LCP stipulates that setbacks be based on at least a 50-year economic life of the project. A fifty year economic life is much less than typically analyzed by the Commission. More typical values are 75 and 100 years, even for single family residences, much less larger and more expensive projects like the one proposed here. Given the nature of the development, and the fact that several resort developments have remained continuously active on the California coast for well over a century (e.g., Hotel del Coronado in Coronado, The Cliff House in San Francisco), the Commission finds that an appropriate economic life for the development should be 75 to 100 years, not 50 years, which is still only the bare minimum required by the LCP.

Therefore, staff has used the ranges of bluff retreat rates measured by Thornton et al. over the time periods 1940-1984 (6.4 ft/yr), 1940-2004 (5.1 ft/yr) and 1984-2004 (2.6 ft/yr) and 50, 75, and 100 year design lives to arrive at the following estimates of the amount of bluff retreat that will occur over the life of the project.

Retreat rates	Amount of Bluff Retreat (ft)		
	50 yrs	75 yrs	100 yrs
6.4 ft/yr	318	477	636
5.1 ft/yr	295	379	505
2.6 ft/yr	131	197	262

As described above, in order to establish a design setback from a coastal bluff, the distance from the slope that is necessary to assure stability needs to be added to the expected position of the bluff throughout its design life. The setback necessary to assure stability *today* is then added to the expected amount of bluff retreat to arrive at a total setback that will ensure stability at the end of the development's economic life. Setting back development behind a projected 2:1 line from the base of the bluff, as suggested by the applicant's geologist, offers a more conservative setback than is likely to be obtained by a formal slope stability analysis. Accordingly, staff calculated the horizontal distance represented by a 2:1 slope from the present toe of bluff. Staff made use of the four surveyed cross sections on the Bestor Engineering plans labeled W-W, X-X, Y-Y, and Z-Z. The horizontal setback represented by these slopes differ because the height of the bluff differs across the subject site.

	Section W	Section X	Section Y	Section Z
2:1 Setback	120 ft	48 ft	60 ft	76 ft

Adding these 2:1 setback distances to the bluff retreat matrices calculated above yields the following estimates of a safe setback for each of the four cross sections:

Section W-W

Assumed retreat rate	Assumed economic life 50 yrs	75 yrs	100 yrs
6.4 ft/yr	438	597	756
5.1ft/yr	373	499	625
2.6 ft/yr	251	317	382

Section X-X

Assumed retreat rate	Assumed economic life 50 yrs	75 yrs	100 yrs
6.4 ft/yr	366	525	684
5.1 ft/yr	301	427	553
2.6 ft/yr	179	245	310

Section Y-Y

Assumed retreat rate	Assumed economic life 50 yrs	75 yrs	100 yrs
6.4 ft/yr	378	537	696
5.1 ft/yr	313	439	565
2.6 ft/yr	191	257	322

Section Z-Z

Assumed retreat rate	Assumed economic life 50 yrs	75 yrs	100 yrs
6.4 ft/yr	394	553	712
5.1 ft/yr	329	455	581
2.6 ft/yr	207	273	338

The setbacks corresponding to each scenario of future bluff retreat rate (based on the historic rates measured over the time intervals shown in the tables) for 50-year, 75-year, and 100-year economic lives of the development are shown in Exhibit 20a-c.

None of these setback scenarios *explicitly* account for increases in bluff retreat rate that are expected to occur as sea level rises in the future. There is no single, widely-accepted methodology for explicitly including sea level rise into projections of future bluff retreat. Rather, the Commission's practice in the past, has been to base the recommended setback on the highest historic bluff retreat rate for in order to minimize the risk of coastal erosion hazards, and not to assume a specific amount of retreat to the effects from sea level rise. This approach is particularly compelling given the uncertainty in sea level rise projections, including that associated with the potential melting of ice sheets and glaciers.

To explicitly factor in increases in bluff retreat rate due to sea level rise a different approach is necessary. The "erosion high hazard zone" indicated on the Pacific Institute maps was derived by increasing the historic bluff retreat rate by an amount proportional to the increase in time that the bluff toe is exposed to wave forces as a result of sea level rise. Another approach, despite the limitations described above, is to apply the Bruun Rule relating equilibrium beach profiles to elevated sea level rise. This approach, performed by Haro Kasunich and Associates at the request of Commission staff, yields increases in bluff retreat of 7 to 58 feet in 50 years (14 to 116 feet in 100 years), depending on assumptions about the rate of future sea level rise. These values would have to be added to the setbacks calculated here by Commission staff to more explicitly factor in the effects of sea level rise. When this sea level rise component is included in the range of bluff retreats already developed by staff, all of staff-developed setback lines are farther landward than the year 2058 setback identified by the applicant.

As discussed previously, the Commission believes that a 50-year economic life is inappropriate for a development of this type. Nevertheless, at the most recent time period bluff retreat rates of 2.6 ft/yr, the project would be stable for the time cited, *if no significant sea level rise is assumed*. This is evident on Exhibit 20a in that the line labeled "2.6 ft/yr (1984-2004)", which roughly coincides with the 2058 line supplied by the applicant, lies seaward of the structures. The Commission notes that the retention basin, required to handle stormwater events and prevent stormwater from flowing off site, will be threatened before 50 years under this scenario. But if one assumes that some sea level rise will occur, this setback line would move inland. For example, using the simplified Bruun assumptions, it would move from between 7 and 58 feet inland, which would place the development at increased risk.

Although the reduction in the amount of sand mining in the Southern Monterey Bay littoral cell has apparently decreased the rate of bluff retreat over the past 25 years, this may be an aberrant lull in erosion that will change once the effects from the reported increase in sand extraction at Marina reach Sand City. Also, rising sea level can be expected to raise the rate once more. As described above, the bluff erosion rate is very sensitive to sea level rise. Accordingly, the Commission does not believe that application of the 2.6 ft/yr bluff retreat rate to bluff retreat over the life of the development is appropriate. Due to the limitations in the Bruun rule described above, and due to the lack of an accepted

quantitative means of relating future bluff retreat to future sea level rise, Commission staff generally recommends that the *highest* rather than the average (and certainly not the *lowest*) documented long-term historic erosion rate be applied to estimate future bluff retreat. In this case, that rate is from the period 1940-1984, and is 6.4 feet per year. The setback line based on this rate, plus the allowance for flattening of the slope, is also depicted on Exhibit 20a. Elements of the proposed building lie seaward of this line. Adoption of this line as the required setback implicitly assumes that the reduction in recent bluff retreat rates due to cessation of sand mining will be offset by increases in future bluff retreat rate due to sea level rise. Use of all of the historic data, 1940 to 2004 to estimate future bluff retreat rates results in an intermediary setback line.

Exhibits 20b and 20c show setback lines making the same set of assumptions about future bluff retreat rate, but with more realistic 75- and 100-year economic lives. Structural elements will just begin to be threatened under the low future bluff retreat rate after 75 years, and will be unstable after 75 years if the future bluff retreat rate is higher than the lowest historic value. For an assumed 100 year economic life, structural elements would be threatened even under the low future bluff retreat scenario.

The building setback line proposed by the applicant lies between the lines corresponding to an erosion rate of 2.6 ft/yr and 5.1 ft/yr. The Commission believes that neither the low erosion rate implied by the this proposed setback, nor the 50-year economic life upon which it is based, are reasonable predictions of future conditions at the site. The building setback proposed by the applicant lies between the staff-recommended setback lines corresponding to the lowest historic long-term bluff retreat rate (2.67 ft/yr) and the mean historic value for the length of the time records are available (1940-2004, 5.1 ft/yr). The Commission finds that neither the low future bluff retreat rate nor the 50-year economic life accurately predict the future conditions at the site. Therefore, the Commission finds the project as proposed is not consistent with LCP Policy 4.3.8.

5. Conclusion

The site is subject to significant coastal hazards including but not limited to tsunami, wave run-up/flooding, and shoreline erosion/retreat, all of which are exacerbated by sea level rise. The Applicant contends that those hazards have been sufficiently addressed, and that the proposed project has been sited and designed to avoid them under the minimum requirements of the LCP. However, analysis of the data shows that the hazards at the site have been underestimated by the Applicant, including the base presumptions regarding potential erosion and sea level rise over time. In addition, the Applicant has not provided determinate information on plans for disposition of the project after its economic lifetime, and thus evaluation relative to that lifetime as required by the LCP is lacking, including with respect to identifying a potentially “safe” development envelope. That said, even at a 50-year economic lifetime portions of the project as proposed would be threatened based on high estimates of bluff retreat. Given the significant uncertainty with sea level rise and future long term erosion trends, the Commission finds that using this higher estimate is required to minimize shoreline erosion risks. The proposed project, therefore, has not adequately mitigated or addressed hazards risks as required by the LCP. In fact, one needs only to look at the immediate downcoast shoreline development at Ocean Harbor House

condominiums and the Best Western Beach Resort Hotel to see the coastal resource impacts associated with underestimating the risks of developing close to the ocean. The siting for those projects is now only maintained by virtue of significant shoreline armoring resulting in built peninsulas out onto the beach and toward the Bay (causing loss of beach, including loss of space for lateral access).

In short, the proposed project has underestimated the potential risks at this location, and it cannot be assured that the project has been adequately sited and designed to address the hazards discussed in this section, and thus it cannot be found consistent with the LCP hazard policies. The project Applicant has not proposed adequate mitigation or re-design to alleviate the LCP inconsistencies and thus the hazards identified with the project.

The Commission finds the proposed project inconsistent with the LCP hazards policies and finds that the CDP may be denied on that basis.

C. Visual Resources

1. Applicable Policies

A. LCP Policies

The LCP protects visual resources and coastal views of Sand City, including those to and along the shoreline and from significant public viewing locations (e.g., from along Highway One.). The LCP also requires that new development be sited and designed to enhance and protect views, including certain specific views; that the loss of visual resources be minimized; and encourages new development to be compatible with its natural surroundings. Applicable LCP LUP and IP policies include:

> ***LUP Policy 3.3.1.*** *Visitor-serving and public recreational uses are given priority west of State Highway One, as designated on the Land Use Plan Map in Section 6.0. Development of these uses shall be consistent with the protection of natural and visual resources.*
>
> ***LUP Policy 5.3.1.*** *Views of Sand City's coastal zone shall be enhanced and protected through regulation of siting, design, and landscaping of all new development in the coastal zone, adjacent to Highway One (on both the east and west) in order to minimize the loss of visual resources.*
>
> ***LUP Section 5.2.2 Coastal Visual Resources, Future Design Considerations.*** *View enhancement is an important aspect of Sand City's LCP. … [LCP design standards have] been guided by the following concerns: 1. the protection and enhancement of visual access, views and scenic areas; 2. the assurance of visual and functional compatibility of new development with site characteristics and the existing City; 3. the assurance of visual and functional compatibility among new developments within the shoreline area; 4. the protection and/or utilization of significant landforms; and 5. improvement and upgrading of the image of the City as a whole.*
>
> ***LUP Policy 5.3.2*** *Views of Sand City's coastal zone, Monterey Bay and Monterey peninsula*

shall be protected through provision of view corridors, vista points, development height limits, and dune restoration areas, as shown on Figure 9. Major designated view corridors are: a) southbound view across the northern city boundary consistent with the public recreation designation; …f) southbound views beyond and above the existing dune line (which may be "rounded off") shall be preserved. The permitted building height shall be limited to 58 feet in elevation above sea level to accomplish this objective; …

LUP Policy 2.3.6. *Protect visual access at the general points shown on Figure 4 by requiring provision of public vista points as part of future developments in these areas. Site specific locations will be developed as part of future development proposals and according to the guidelines set forth in Policy 2.3.4.*

LUP Policy 5.3.3. *View corridors are defined as follows:*

a) *"views across" shall be protected by retaining the view corridor free of new structures. These corridors will continue to provide broad unobstructed views of the sand dunes, shoreline, Monterey Bay, and the Monterey peninsula (southbound) or Santa Cruz Mountains (northbound); …*

b) *"views over development" shall be provided by limiting the maximum height of development to protect views of the sweep of beach and dunes, Monterey Bay, and the Monterey peninsula. … In measuring southbound views, viewpoints shall be assumed to be from the center point of the corridor at an elevation four feet above freeway grade in the southbound traffic lane, to a point at the Coast Guard Station in Monterey. North of Tioga Avenue, approved development shall [not] intrude upon, or block, an unobstructed view of more than one-third of the lineal distance across the Bay, measured as a straight line between the freeway viewpoint and the landward edge of the Coast Guard Breakwater…*

LUP Policy 5.3.4.a. *Encourage project design that is compatible to its natural surroundings and that enhances the overall City image. All buildings should be designed and scaled to the community character as established by new development.*

LUP Policy 5.3.4.b. *Encourage mass and height variations within coastal zoning limits in order to provide view corridors and to generate "lighter," "airier" buildings. Encourage building designs that avoid overly bulky buildings that could significantly block view corridors*

LUP Policy 5.3.4.f. *Encourage the use of existing natural and manmade dunes as earth berms for visual and noise barriers, as well as buffers between land uses. Landforms are more efficient for visual and noise reduction than planting screens.*

LUP Policy 5.3.6. *Encourage restoration or enhancement, where feasible, of visually degraded areas. …*

LUP Policy 5.3.8. *In addition to view corridors designated on Figure 9, encourage new developments to incorporate view corridors from Highway One to the ocean, within project design, consistent with City standards for view corridors. Such standards for view corridors should include varied roof or building profile lines, and visual corridors through, between and/or over buildings to the bay.*

LUP Policy 5.3.9. *New development should to the extent feasible, soften the visual appearance of major buildings and parking areas from view of Highway One*

LUP Policy 5.3.10 *Utilize existing or manmade dunes within project design to enhance visual resources.*

LUP Policy 5.3.11. *In new developments require dune stabilization measures where feasible and where they would stabilize an unconsolidated dune, and/or reduce views of the development from Highway One.*

LUP Policy 6.4.1. *… For the portion of Assessor's Parcel Number (APN) 011-501-014 [subject site] other than the 7.44 acre Public Recreation Area designated on the Land Use Map, allow permitted land use designations as shown on the Land Use Plan Map, to be intermixed, subject to an overall development plan for the entire parcel, in unit densities that do not exceed the maximum visitor serving and residential density limits established by the amount of acreage indicated below:*

> *Visitor-Serving Commercial. 17 acres; 375 unit hotel/vacation club/timeshare (maximum); other visitor serving commercial uses shall be limited to the maximum densities identified by Appendix F, and are allowed subject to Planned Unit Development (PUD) approval.*
>
> *Visitor-Serving Residential 4 acres, 100 units (maximum) at a maximum density of 25 units per acre.*
>
> *Medium Density Residential. 7 acres, 175 units (maximum) at a maximum density of 25 units per acre. A minimum of three visitor serving units (i.e., hotel or visitor serving residential) must be provided for every residential unit to be developed, and must be in operation prior to the development of the residential units or available for transient occupancy use concurrent with the occupancy of the residences.*
>
> *Public Recreation. 7.44 acres. In addition to this area, public recreation uses may also be located within the other land use designations for the site.*

The described densities, both above and below, represent a maximum. As required by applicable policies of the LCP, permitted development intensities shall be limited to those which adequately address constraints including, but not limited to: … dune habitats and their appropriate buffers; and natural landforms and views to the Bay.

LUP Policy 6.4.5. *In the Sand City Coastal Zone, permit a height limit of 36 feet as measured from existing grade with the following exceptions:…*

b) hotel uses shall not exceed 45 feet. Hotel uses shall not exceed 45 feet. … All other on or above-ground private and public recreational structures, public-serving commercial uses and public amenity improvements shall not exceed 15 feet or one story in height from finished grade; …

d) views over development (see Figure 9) shall he preserved by limiting heights as necessary to assure compliance with Policy 5.3.3.…

IP Section 2.2, Visual Resources. *Protection of visual resources will be accomplished through provision of view corridors, vista points, development height limits, and dune restoration areas as identified in the Local Coastal Land Use Plan. …[Decision makers shall approve a CDP] only if it is found that the development is sited, designed, and landscaped in a manner that provides view corridors from Highway One to the ocean and considers protection and/or enhancement of coastal visual resources. …*

IP Section 3.2, CZ-R2 Coastal Zone Residential, Medium Density, Permitted Uses, Subsection (a). *Clustered multiple family attached structures at medium density, subject to Planned Unit Development (P.U.D.) application and approval, and public recreation areas. For APN 011-501-014 [subject site], allow all permitted uses in the medium density designation to be intermixed with other types of units or uses allowed on the parcel under the Visitor Serving Commercial and Visitor Serving Residential zoning designations, subject to an overall site development plan for the entire parcel, such that the proportion of residential uses relative to the specified acreage in the LCP Land Use Plan is not increased, but encourage clustered multifamily attached structures at medium density. For Assessor's Parcel Number (APN) 011-501-014[subject site], Medium Density residential development shall not exceed 175 units at a maximum of 25 units per acre on 7 acres.*

IP Section 3.2, CZ-R2 Coastal Zone Residential, Medium Density, Height Regulations: *No building shall exceed thirty-six (36) feet as measured from the existing grade. … Views over development, as specified in the Local Coastal Land Use Plan, shall be preserved by limiting heights as necessary to assure compliance with policies contained in the Local Coastal Land Use Plan.*

IP Section 3.2, CZ-VSC Coastal Zone Visitor Serving Commercial, Permitted Uses, Subsection (a). *… For APN 011-501-014 [subject site], where other uses are allowed, those uses under the Visitor Serving Residential and Residential Medium Density zoning designations may be intermixed, subject to an overall site development plan for the entire parcel, such that the proportion of visitor-serving uses relative to the specified acreage in the LCP Land Use Plan is not decreased. …For Assessor's Parcel Number (APN) 011-50-014 [subject site] Visitor-Serving Commercial development shall not exceed a maximum of 375 hotel/vacation*

club/timeshare units on 17 acres. All other visitor-serving commercial uses shall be limited according to the water allocation presented in Appendix F of the LUP

IP Section 3.2, CZ-VSC Coastal Zone Visitor Serving Commercial, Height Regulations: *No building shall exceed thirty-six (36) feet as measured from the existing grade except hotel uses shall be permitted variation in height to forty-five (45) feet. … Views over development, as specified in the Local Coastal Land Use Plan, shall be preserved by limiting heights as necessary to assure compliance with policies contained in the Local Coastal Land Use Plan.*

IP Section 3.2, CZ-VSC Coastal Zone Visitor Serving Commercial, Minimum Requirements:

(a) Density: For visitor-serving hotels, allow up to 75 rooms per acre. …[maximum rooms allowed in Area CZ-VSC-D is 375 rooms] …

(b) The following minimum requirements shall be observed. (1) Require P.U.D. application for visitor serving commercial developments. [PUD requirements include the following: "Before a planned unit development permit shall be granted, the city council shall find:… D. Appropriate environmental review has been performed with proper mitigation and the project meets the requirements of the California Environmental Quality Act, as amended…]

IP Section 3.2, CZ VS R-2 Coastal Zone Visitor Serving Residential, Medium Density, Permitted Uses, Subsection (a). *Clustered multiple family structures, with a rental pool, at medium density, subject to Planned Unit Development (P.U.D.) application and approval and public recreation areas. For APN 011-501-014 [subject site], allow all permitted uses in the Visitor-Serving Residential Medium Density designation to be intermixed with other types of units or uses permitted on the parcel under the Visitor Serving Commercial and Residential Medium Density zoning designations, subject to an overall site development plan for the entire parcel, such that the proportion of residential uses relative to the specified acreage in the LCP Land Use Plan is not increased. …For Assessor's Parcel Number (APN) 011-501-014 [subject site] Visitor-Serving Residential, Medium Density development shall not exceed 100 units (maximum) at a maximum density of 25 units per acre on 4 acres.*

IP Section 3.2, CZ VS R-2 Coastal Zone Visitor Serving Residential, Medium Density, Height Regulations: *No building shall exceed thirty-six (36) feet as measured from the existing grade. …Views over development, as specified in the Local Coastal Land Use Plan, shall be preserved by limiting heights as necessary to assure compliance with policies contained in the Local Coastal Land Use Plan.*

IP Section 3.2, Coastal Zone Overlay District, Permit Conditions, (c). *In considering a coastal development permit application, the City Council shall give due regard to the Local Coastal Program in order to approve a development, and the Council shall make findings that approval of the permit is consistent with the Local Coastal Program, including but not limited to: … (6) Provision of view corridors and vista points pursuant to the Local Coastal Land Use Plan…. (7)*

Approval by City Design Committee of project design, siting, landscaping and provision of view corridors from Highway One to the ocean ….

B. Policy Summary

The LCP's visual resource policies state a clear intent to maximize, protect, and enhance the significant public visual resources of Sand City, including those specifically related to the project site. Perhaps most important in this respect are the views of motorists from Highway One of and across the site to the Monterey Bay and peninsula. Other important public views include those from a closer perspective from the Monterey Bay recreational trail that runs between Highway One and the site, and from Fort Ord Dunes State Park upcoast.[67] In addition, the site is prominent in public views from the wet sandy beach area below MHT. Finally, the site is part of the more distant, but still important, public view back towards the site across the Bay from points along the Monterey peninsula, including predominantly in and around Cannery Row. The vista here is of and across an undeveloped continuous dune panorama of which the project site is a part.

The LCP policies protect the visual resources of Sand City in general terms and also provide specific, more detailed, protections for identified "major designated view corridors." The background section of the LUP visual resources section states:[68]

Sand City's coastal zone is separated by Highway One, which forms a distinguishing boundary between the City's visual resources. The area west of Highway One is characterized by shifting sands, non-native ice plant, beaches, coastal bluffs and views of Monterey Bay. The area east of Highway One is characterized as primarily industrial due to the existing land uses outside of the coastal zone.

Sand City's viewshed consists of coastal views and views of the Monterey Peninsula from Highway One, Sand Dunes Drive, Tioga and Bay Avenues, and existing developed portions of Sand City and Seaside (the area east of Highway One). In addition, views of Monterey Bay and portions of Sand City can be seen from areas on the Monterey Peninsula. Generally, Sand City's coastal zone is highly visible from Highway One.

Views of Monterey Bay and Monterey Peninsula can been seen while traveling along Highway One. These views are broken and obstructed by dunes and, to a lesser extent, by existing uses. However, at several Points in Sand City along Highway One, view corridors do exist.

These corridors were evaluated according to significance of views and relationship to existing dunes. As a result, view corridors and vista points requiring protection have been designated in general locations as shown on Figure 9. In some cases, where the elevation of Highway One is much greater than properties to the west of it, view corridors are established over development,

[67] Views from the MPRPD park just downcoast of the site are mostly blocked by the large dune feature on the site.

[68] LUP Section 5.2.1 ("Coastal Visual Resources, Existing Visual Resources").

so the line of sight from Highway One is not obstructed. Other corridors are generally established to be free of structures except for parking, public facilities or public recreation.

The evaluation of view corridors concluded that visual corridors could be established in various locations throughout the City, based on open views to the ocean and the Peninsula. However, many areas could not be established as view corridors due to location of existing industrial development and potential future developments. The visual analysis also concluded that stationary views, such as at vista points, are a valuable alternative to view corridors for the protection of visual resources.

This introductory text identifies the important views described above, including views of the Bay and peninsula, and views back from the peninsula. It also introduces the concept of specifically identified view corridors from Highway One. Certain view corridors are identified as major designated view corridors in LUP Policy 5.3.2 and Figure 9 of the LUP. These views are intended to be protected through the provision of view corridors, vista points, development height limits and dune restoration areas. There are two primary areas on the project site that are identified as requiring this heightened level of view protection. The first is an "open view corridor" area generally represented as a large triangular portion of the northwest corner of the property (see Exhibit 3). The second is a "dune preservation, stabilization and restoration area" located in an "L" shape in the southeastern portion of the property and extending approximately half way along the western edge of the property line.

In addition to the specific view corridors identified in LUP Figure 9, the LCP provides more general protection for other visual resources in the City's coastal zone. For example, Policy 5.3.1 requires enhancement and protection of views in the City's coastal zone, in order to minimize the loss of visual resources. Policy 3.3.1 requires development west of Highway One to be consistent with the protection of visual resources, and additional view corridors from Highway One to the ocean are to be encouraged as part of new development (see Policy 5.3.8).[69]

Overall the LCP provides a broad vision for visual resource protection. The LUP visual resource text indicates that "view enhancement is an important aspect of Sand City's LCP"[70], and the LUP identifies the following five guiding principals for the LCP's visual resource policies:[71]

1. *the protection and enhancement of visual access, views and scenic areas;*

2. *the assurance of visual and functional compatibility of new development with site*

[69] The applicant has argued that the only views protected in the LCP are those identified in LUP Figure 9. However, Policy 5.3.8 specifically applies to view corridors "in addition to view corridors designated on Figure 9," and there is nothing in the other policies listed above that would suggest that they are intended to apply solely to the major designated view corridors identified in Policy 5.3.2. Moreover, while Policy 5.3.2 focus on specific views, LUP policies such as 3.3.1 and 5.3.1 describe protection of Sand City's visual resources as a whole, rather than focusing solely on view corridors.

[70] LUP Section 5.2.2 ("Coastal Visual Resources, Future Design Considerations").

[71] Id (Section 5.2.2).

characteristics and the existing City;

3. *the assurance of visual and functional compatibility among new developments within the shoreline area;*

4. *the protection and/or utilization of significant landforms; and*

5. *improvement and upgrading of the image of the City as a whole.*

The concept of "view enhancement" and "protection and enhancement of visual access, views and scenic areas" describes a broad and fundamentally protective visual resource policy context.

As described in these background principles, and in Policies 5.3.2, 5.3.4 and 5.3.10, the LCP also encourages the use of dunes to enhance the visual resources of the City. Existing dunes must be protected (see Policies 3.3.1, 5.3.2, 5.3.4.f and 5.3.10) and used to screen new development, while manmade dunes may also be used for a similar purpose, as long as the development of new dunes is otherwise compatible with LCP policies. The intent of the LCP is to protect existing dunes, and to seamlessly integrate approvable development within them. As the Commission found when certifying the LUP:

> *… this revised policy [5.3.2] designates dune restoration/preservation areas recognizing that these areas also will be visual amenities as they will reflect the dune landforms through which the Highway was constructed and will also reduce the visual impact of new structures between the Highway and the sea.*[72]

Policy 5.3.10 must thus be interpreted to require the use of dunes, in their existing state, as a means of enhancing the City's visual resources[73].

As discussed below, the project proposes to grade and develop within the protected dune landform designated on LUP Figure 9. In proposing such development, the applicant has argued that the dune features in question are "not natural" and thus not natural landforms requiring protection, but the Commission does not agree. In this respect, the LCP includes a discussion in LUP Section 4.2.2

[72] CCC, LUP Findings, September 7, 1982.

[73] The applicant contends that the use of the term "utilize" in the LUP suggests that existing dunes may be graded, and otherwise manipulated, as long as they enhance the City's visual resources. This interpretation would require reading Policy 5.3.10 and 5.2.2 in isolation from the other visual resource protection policies as well as the LCP as a whole, which protects natural and visual resources such as dune habitat (See, i.e., Policies 3.3.1, 5.3.2 and 6.4.1). In particular, as discussed in the natural resource finding, grading of the protected large dune form on the project site is only allowed as part of a dune restoration. In addition, section 5.1 of the LUP cites Coastal Act Section 30251, which is the basis for the subsequent policies laid out in LUP Section 5.3. One must interpret the more specific LUP policies to be consistent with Section 5.1, which requires the minimization of the alteration of natural landforms. Even if the LUP did not include Section 30251, any ambiguities in LCPs should be interpreted consistent with the provisions of the Coastal Act. *McAllister v. California Coastal Commission* (2008) 169 Cal.App.4th 912. Thus, the term "utilize," as applied to dunes, must be interpreted consistently with the mandate to minimize the alteration of natural landforms.

("Protective Shoreline Structures") that indicates as follows:

> *The portions of Sand City's coastline which are not currently protected by seawalls are not in a natural condition. Most of the unprotected area consists of active shifting sands that have been severely impacted over time and are not in a natural condition. The dune area in the northern part of the City has been mined and also is not in a natural condition.*

However, the intent of that discussion is clearly to indicate that portions of the City's dunes have been manipulated over time by various activities, such as sand mining, and are thus degraded. In fact, as indicated in LUP Section 4.2.4 ("Sand Dunes and Environmentally Sensitive Habitats"):

> *The dunes west of State Highway One are in a severely disturbed state. Due to human uses over time, the original dune landform in this area is generally absent. The majority of the dunes are active, characterized by shifting sand. Little plant life has established itself on these dunes, and where there is vegetation, it is dominated by non-native invasive vegetation. The area provides no natural habitats, although some native species are found. The dunes have other valuable qualities, however, including visual qualities and the potential for wind and, erosion protection when stabilized with vegetation.*

In this respect, the LCP describes the City's dune features as degraded, but there is no indication that they are no longer "natural" landforms. Rather, the LCP point being made is that these areas have been manipulated over time and are not in a pristine state. In fact, Figure 9 refers to dune "preservation, stabilization and restoration areas." If these dunes were no longer "natural," there would have been no need to preserve them, and the LCP would have referred to dune "creation" rather than "restoration," which suggests a return to a healthier ecosystem. While the LCP language is not as precise as it might be if it were written today, in terms of the way it refers to degraded areas as lacking "natural" conditions, this is really a reflection of the LCP's age, as opposed to an explicit attempt to determine that the dunes in Sand City are somehow artificial. Indeed, much has been learned regarding dunes since these LCP policies were certified, including their scarcity and ability to regenerate, and the LCP language reflects some of the general parlance of the time. It should not be read to say that the City's dunes are not natural landforms, because of course they are. These dunes have been manipulated, but they are not in some way artificial dunes. The rest of the plain language of the LCP, including the visual resource policies as a whole, clearly recognize the dunes as natural landform features to be protected. Furthermore, this is the only way the LCP can be understood in relation to the Coastal Act policies from which such language derives its authority.

Finally, the LCP includes a number of very specific requirements for development in the zone districts that apply to the site. For the portion of the site designated public recreation (i.e., that area along the upcoast property line and along the beach; see Exhibit 3), the LCP does not allow development other than for public recreational uses. Also, the mapped "open view corridor" on Figure 9, which corresponds to the public recreation designation, does not allow any structures in this area, pursuant to LUP policy 5.3.3. For the remainder of the site, the LCP limits hotel densities to a maximum of 375

hotel/vacation club/timeshare units on 17 acres for this site, and limits residential density to a maximum of 275 units at a maximum of 25 units per acre on 11 acres.[74]

Although the non-public recreation portion of the site is broken up into three different zone districts, the LCP specifically allows these unit counts and types to be intermixed for these areas, so long as the visitor-serving to residential proportions are maintained. Development heights for the site are limited to a maximum of 45 feet above existing grade for hotel uses, and are limited to a maximum of 36 feet above existing grade for all other uses and development. As indicated in LUP Section 6.4.1, such maximums are not entitlements, but rather upper thresholds that can be considered but that must be understood in relation to site constraints that affect development (including explicitly in terms of protecting natural landforms and views to the Bay) and that limit allowable densities and scale otherwise. Development of the uses identified requires a planned unit development (PUD) approval, and that approval requires the project to be consistent with CEQA, including explicitly in terms of appropriate environmental review.

In conclusion, the LCP visual resource policies as they apply to this site require that approvable development be sited and designed to ensure that dune features are protected, as are views, including views from Highway One. These policies include specific maximum densities and intensities of use, and they direct that views remain undisturbed by ensuring that development is hidden by existing landforms in order to enhance visual resources. New development that blocks views of the Bay and the Monterey peninsula beyond or that significantly adversely affects other views cannot be found consistent with these policies.

2. Visual Resource Setting

The project is located along a particularly scenic section of shoreline connected to and visually indistinguishable from up and downcoast dune landforms. The site also includes the previously described very tall dune feature that is a landmark for this stretch of coast.[75] The primary public view in relation to the site is the view from Highway One. This is the way that most people view the site and the Monterey Bay/Monterey peninsula beyond the site. The view from the Highway changes depending on one's location, and ranges from a clear view of the Bay and the Monterey peninsula to a more broken view due to both intervening vegetation in places and the dune topography itself (see Highway One view photos and figures in Exhibit 22). The northern portion of the site, being lower in elevation, provides greater through views in this respect, both when seen from northbound and from southbound Highway One. In general, however, the site is extremely visible from Highway One, and views of it and across it are significant.

The Monterey Bay recreational trail and bikepath that runs between Highway One and the site provides

[74] For the CZ-R2 (Residential, Medium Density) portion, 175 units maximum and 25 units per acre on 7 acres, and for the CZ VS R-2 (Visitor Serving Residential, Medium Density) portion, 100 units maximum and 25 units per acre on 4 acres.

[75] Including having been used historically as a blank canvas for the creation of large-scale messages along the side of the dune for viewing from Highway One given its prominence in this viewshed.

similar vistas as that from Highway One for pedestrians and cyclists. Because the recreational trail is at a slightly lower elevation than the Highway, the view from this location is less expansive. In addition, far fewer people view the site from the recreational trail as compared with the Highway, but this is still a significant public recreational feature that is highly used, and views from this location are likewise significant.

A different vista of and across the site is provided upcoast, from Fort Ord Dunes State Park. This State Park only recently opened for public use (on April 15, 2009), and thus use patterns and amenities have not been completely developed. However, the project site shares a common boundary with the State Park, and the site is prominent in views from the Park. This is perhaps most obviously the case in terms of the trail to the beach that extends toward the site from near the recreational trail and then towards the Bay. In this view, the site is extremely prominent in the immediate foreground (see Exhibit 21).

In terms of the MPRPD park site immediately downcoast of the site, the tall dune feature essentially blocks any views of or across the site from this vantage point. In addition, this park area is limited to sand dunes without access amenities, and thus it is not heavily used for direct recreational access, it instead provides visual dune continuity and open space for users of the adjacent recreational trail segment, the beach, and from vantages across the water on the Monterey peninsula.

The unbroken stretch of sand between Monterey and the Salinas River, a stretch of approximately 10 miles, includes the site. The site is thus on the inland dune slope for walkers making use of the sandy beach, and is prominent in this pedestrian view. The site is currently indistinguishable in this respect from the surrounding park uses, as the dunes are similar up and downcoast.

Finally, the site figures in the view back toward this side of the Bay from locations in and around Monterey, including vistas from the public recreational trail as it winds through Monterey and Pacific Grove, from Cannery Row, and from the Monterey Bay Aquarium. There are a series of existing developments that are prominently visible and that detract from this vantage (e.g., Embassy Suites Hotel, Best Western Beach Resort hotel, Ocean Harbor House condominiums). These developments are located further south of the site. The site is thus part of the existing unbroken strand of coastal dune bluffs seen in this view that extend roughly from Tioga Avenue downcoast of the site north through the Fort Ord dunes.

3. Landform Alteration Is Excessive

The project proposes to grade almost the entirety of the site, including grading, excavation, and recontouring of approximately 88% of the dune area above MHT, totaling approximately 28 acres. Essentially all of the area above the 20-foot dune contour would be graded. The large dune feature at the southern edge of the site that is identified in LUP Figure 9 as a “dune preservation, stabilization and restoration area” would be completely recontoured to reduce its height by about 15 feet and flatten its northern exposure to conform to the buildings proposed to be constructed. The large dune feature midway on the site along the Highway frontage would be removed entirely to make way for the entry road to the main reception area of the facility. A new tall dune feature (approximately 105 NGVD at its

crest) would be formed along the upcoast portion of the site nearest Highway One. The fore dune area seaward of the proposed buildings would be graded from a rolling 35-foot to 60-foot NGVD contour to a uniform 30-foot NGVD elevation, and several hillock depressions would be formed in this area. Overall, the applicant proposes to export approximately 417,318 cubic yards of excess sand from the site to private parties for commercial and private use, or have it taken to the dump.[76] See grading plan in Exhibit 9.

Substantial grading, recountouring and ultimately reduction in the height of the large dune in the southeast corner of the site is inconsistent with the visual protection policies of the LCP. As described above, this dune feature is specifically identified as a dune preservation, stabilization and restoration area in LUP Figure 9. As discussed below, it is also specifically identified as a dune restoration area in Figure 7. Grading of this feature is only allowed for purposes of dune habitat restoration. The entire feature must be kept in open space (see findings below). Rather than preserving or restoring this dune, however, the proposed grading is intended to completely redefine this feature, as well as the site as a whole. Not only is this inconsistent with LUP visual protection policies, such as 5.3.1 and 5.3.2, which require the protection and restoration of this area, but, as discussed below, this dune feature is also protected by the LCP natural resource protection policies.

The recontouring or "flattening" of the fore dunes along the western edge of the proposed development is also inconsistent with the LCP visual resource policies. This grading would likely enhance resort guests' views of the ocean, but it would degrade public views from the beach and across the bay, and is inconsistent with the LCP. LUP policies require the protection of natural and visual resources (LUP Policies 3.3.1, 5.3.1, IP Policy 2.2) as well as the use of existing dunes to enhance visual resources and to provide visual barriers from development (LUP Policies 5.3.4.f and 5.3.10). Rather than protecting these resources by minimizing their grading and alteration, the Applicant proposes to remove the top 5-30 feet of each of these dunes. This fore dune grading is not necessary in order to develop the site, and it will only serve to emphasize the prominence of the proposed buildings as seen from the beach and from vantages across the water on the peninsula, rather than screening such development. Such landform alteration, and in particular the manner in which it detracts from the significant public viewshed, cannot be found consistent with the cited policies.

In addition, the grading proposed nearest the Highway is inconsistent with the LCP because it will block off much of the existing view across the center and upcoast portion of the property, blocking both blue water and Monterey peninsula views from the Highway and the recreational trail.[77] It is clear that such landform alteration has been proposed in an attempt to hide the proposed building as seen from Highway One, which is a goal of LUP Policy 5.3.10. The use of a "manmade" dune in this location,

[76] The Applicant has also indicated a willingness to allow the sand to be used for sand replenishment if a suitable partner could be found for such effort. Sand replenishment has been identified as a significant alternative to potentially address the serious shoreline erosion along southern Monterey Bay.

[77] The new dune crest in the upcoast area would be about 25 feet higher than the Highway One roadway elevation, and the portion of the view blocked by the existing tall dune would be extended upcoast to the new proposed resort entrance.

however, does not enhance visual resources, in conformity with Policy 5.3.10, it instead detracts from the viewshed because its location would block existing views. While the goal of using dunes to enhance visual resource is laudable, the Applicant should ensure that any such proposal is accomplished in a way that screens new development without detracting from existing visual resources.

The issue of potentially blocking the signficant blue water views from Highway One was a specific concern in the Commission's previous review of a project for this site. Moreover, in 1997 the City of Sand City, at the request of the project applicant, specifically considered an LCP amendment of LUP Figure 9 in order to provide both for the new dune landform creation currently proposed, and the breaks in the existing mapped landform to provide for the project proposed in 1997. However, the City noted that Coastal Commission staff and the Sierra Club had raised concerns about the blocking of existing ocean views from Highway One by such a proposal, and that a visual analysis would be completed by the applicant. It appears that such analysis was not presented to the City, however, and subsequently the City, at the applicant's request, removed the proposed amendment of Figure 7 that would provide for the new created dune form and the grading of the currently protected dune from its LCP amendment.[78] Notwithstanding this history, the applicant has represented in its application materials, that Figure 7 was amended by the Commission in LCP Amendment 2-97. However, no such change was ever approved by the Commission.

Ultimately, the Commission finds that the City of Sand City LCP policies are designed to *protect* views, not to allow dune manipulation or the creation of large land forms that themselves would *block* significant views, as distinguished from the use of either existing landforms or other dune berming to screen development without significantly impacting public visual resources.

With respect to the proposed grading of existing dune features, the proposed project has not been designed or sited to protect visual resources, including existing view corridors, it would result in the loss of existing views, and would not protect existing visual resources and thus it cannot be found consistent with LUP Policies 3.3.1, 5.3.1, 5.3.2, 5.3.3, and 5.3.10, LUP Section 5.2.2, and IP Section 2.2. Thus, the Commission finds the proposed project inconsistent with the applicable LCP and visual resource provisions related to visual protection and denies the CDP.

4. Buildings and Other Development Not Approvable

With respect to the buildings and related development, as described above, a good portion of the proposed development would be blocked from view as seen from Highway One by the above-described landform alteration. Nonetheless, at least some of the proposed buildings and development would be plainly visible in multiple public views.

From Highway One, new road extension and parking areas would be located in the foreground of the view between the Highway and the realigned dune landform, and thus would not be shielded from view by the dune landforms. This road and related development slopes gradually from downcoast to upcoast

[78] See March 26 and April 10, 1997 memorandums from Sand City Community Development Director to City Council.

from an elevation of about 90 nearest the existing road (and the location of the proposed gatehouse and gate), gradually sloping down to an elevation of about 60 near the inland and upcoast corner of the site, and then down to an elevation of about 50 as the road extends vertically toward the ocean and enters a garage building (see site plan in Exhibit 4). This road will be prominent in both northbound and southbound views, and will significantly alter the existing character of the view from one of a dune viewshed to one of a frontage road extending about a quarter mile along and out into the dunes. In the upcoast portion of this road extension, 70 parking spaces would also be provided and vehicles parked in this area will further detract from the dune viewshed.

In addition, other components of the project will also be visible from Highway One, despite the proposed dune landform alteration proposed to screen them. For southbound Highway One, the proposed buildings will extend above this new road extension in the more distant views approaching the site, both blocking existing views across the site of the large dune landform, and introducing the sides of the proposed buildings themselves into this view (see site plans and elevations in Exhibits 4 and 7). For both northbound and southbound Highway One (and including the southbound exit), and in particular starting at the apex of the northbound Fremont Street overpass when drivers first see the view across the site, the buildings and related development will be visible over the top of much of the manipulated dune features. This is due to the fact that the overpass is at a higher elevation (roughly 110 feet), as are road elevations otherwise to a certain degree (ranging from about 80 feet fronting the site to the 110 feet at the overpass), than the majority of the manipulated dune features along the Highway frontage, and because this vantage provides a view directly through the opening in these manipulated dune features proposed for the main access to the resort facility. This same view impact will accrue to southbound Highway One views, albeit to a lesser extent, as these views are looking back at the site as the vehicle is moving downcoast.

The Applicant has attempted to reduce these impacts through building design. For example, these view impacts will be reduced by the proposed landscaped roofs, although the degree to which such mitigation can reduce this view impact will depend on how successful such landscaping can perform over the long term. While the Commission recognizes that development that incorporates design features such as landscaped roofs and more natural, curvilinear designs, is more in keeping with LCP requirements than a large boxy structure, and should be encouraged, the proposed project is on such a large scale that even with these design features, the development would still be highly visible in existing view corridors. In addition, the Applicant's proposal isn't clear on this point, but it references potential solar panels and wind turbines on the roofs, and these would both limit the effectiveness of any landscape screen and would have view impacts themselves.[79] In addition, even with 100% roof landscaping, certain building

[79] Despite requests for information on the what types of solar and wind facilities are proposed and where, the Applicant's submittal is unclear in this respect as to what type of solar arrays and wind turbines would be placed where on the site. Although referenced in some application documents as being on the roofs of buildings, the roofs of buildings are identified elsewhere as being landscaped to mitigate dune and visual impacts. They cannot be both at the same time. And the configuration of such solar arrays and wind turbines has not been detailed. Depending on their configuration and ultimate location on the site, they may have their own adverse impacts on public views.

elements that are not "landscaped" and thus camouflaged (including the circulation, daylight, and ventilation towers; the main entrance facade; the inland portion of the walls/windows of the seawardmost wing; etc.) will be visible. Again, such development will both interfere with views and introduce significant urban development into views not otherwise blocked such that the dune character is adversely impacted.

In terms of impacts on views from the recreational trail, such impacts will be similar to those from Highway One, but to a lesser degree, given that the elevation is lower and, when traversing directly along the frontage for the site, the manipulated dunes would mostly block buildings from view. These views would, however, be similarly redefined from an undeveloped dune landscape to a substantially more urban landscape, including in respect to the road and parking areas that would be located closer to the recreational trail than the Highway.

With respect to views from adjacent Fort Ord Dunes State Park, the new road and buildings would be located prominently in the foreground of the view of and across the site from the existing beach access trail (see photos of this view in Exhibit 21). The dune manipulation proposed is not going to hide these features from this view. Rather, the project will unfold as an extremely large set of buildings backed by dunes and fronted by a road in this view. Should additional trails and amenities be developed in this area, these too would be impacted in the same manner. This protected park area, and its value as a recreational area encompassing the dunes, would thus be significantly adversely affected. The development would be in stark contrast to the existing open space dune aesthetic, and cannot be found consistent with it, despite the proposed landscaping and roof camouflaging. The reality is that there would be a series of multi-storied buildings directly in the middle of this view, detracting from the park recreational experience and reducing its public recreational utility otherwise.

In addition, the view from the lateral beach access area would be significantly impacted. In place of a rolling dune landform, the fore dune would be graded down to expose a series of large buildings extending up to elevations of approximately 100 feet in places.[80] Currently, this view is of tall dunes extending away from the ocean. The new view would be in stark contrast, and would be of a much lower dune feature with a large scale resort behind it (see elevations in Exhibit 7). In short, this view would be forever changed from a dune backbeach to a resort complex.

The view from across the Bay on the peninsula would be impacted in a manner similar to the lateral beach access viewshed, albeit at greater distance and varying degrees, depending on the view angle. The new buildings would be highly visible from some of these vantage points. The existing impacts of shoreline development located in this viewshed and downcoast of the site provide a good reference point and barometer in this respect. One example often cited is the Embassy Suites hotel in Seaside (12+ stories). This hotel is a very large structure that appears prominent against the skyline in this view. It is, however, located inland of Highway One and has very little backdrop that would disguise it. Thus, its relevance in this respect for understanding the view impact of the proposed project is primarily one of

[80] Submitted plans show the finished floor height to be 92 feet in places.

scale.

More similar in terms of location in this view are the Best Western Beach Resort hotel and the Ocean Harbor House condominiums located downcoast of the site. These facilities are both located directly on the shoreline, and although somewhat integrated into the surrounding built environment from this vantage, they appear overly large and massive in relation to the immediate shoreline view. As indicated before, this site is located within the undeveloped dune shoreline extending upcoast through Fort Ord Dunes State Park and beyond, and thus the degree to which it can "integrate" with its environment is limited. In fact, although it would integrate to a certain degree into the viewshed with respect to development located outside of the coastal zone and above the site in this view, it would serve to connect that urban development visually to the shoreline, and it would remove the swath of dune in this view that currently helps soften the visual impact of this existing built environment. In its place, it would introduce the large buildings previously described. From this vantage point, there would be little that could be done to disguise the development, and the buildings would appear as a very large structure in the dunes. Such a large structure would significantly alter this view.

Thus, with respect to other views (as distinct from view impacts caused by the proposed grading, as previously discussed), the proposed project has not been designed or sited to protect visual resources, including existing view corridors, it would result in the loss of existing views, and thus it cannot be found consistent with LUP Policies 3.3.1, 5.3.1, 5.3.2, 5.3.3, 5.3.4a, 5.3.6, 5.3.9, 5.3.10, and 6.4.5, LUP Section 5.2.2, and IP Sections 2.2 and 3.2. In addition, the roads, buildings, and related development block public views and otherwise intrude upon the public viewshed to such a significant degree that conditions are not available nor appropriate that can adequately resolve the policy inconsistencies in this respect. Thus, the Commission finds the proposed project inconsistent with the applicable LCP and Coastal Act visual resource provisions and denies the CDP.

5. Structures in mapped view corridor not allowed

LUP policy 5.3.2 requires that views of Sand City's coastal zone, Monterey Bay, and Monterey peninsula be protected, in part by protecting the mapped view corridors shown on Figure 9. The project site has a mapped "major" view corridor on it (Exhibit 3). This view is defined as the "southbound view across the northern city boundary consistent with the public recreation designation." LUP policy 5.3.3(a) requires that this view be protected by "retaining the view corridor free of new structures."

It is clear from Figure 9, and the Commission's history of LCP certification, that this view corridor is a "generalized view" from Highway One.[81] Clearly the Commission was concerned with protecting important views across the site to the ocean and the peninsula:

Much of Sand City's coastal zone is visible from Highway 1. Views to and along the

[81] Early Commission analysis of visual resources in Sand City, for example, focused on areas where existing views to the sea from Highway One may be obstructed by new development, and on the existing dune features that blocked views to the sea. Other than the area of the big dune on the project site, the remainder of the site was indicated as the former.

> *shoreline, to Monterey bay and the Monterey Peninsula are available to southbound travelers at most points along the route of Highway 1 thre Sand City. . . .*
>
> *Bay and Peninsula views from Highway 1 are particularly important as this route is the most heavily used "gateway" to the Monterey Peninsula, a popular visitor destination on national significance. Although high dunes periodically interrupt views to the sea from Highway 1, the road elevation on the dune ridge through Sand City generally permits viewing across the largely undeveloped topography….*
>
> *Given the identified visual resources of tgeh City's coastal zone – views to the sea and Monterey Peninsula, dominant dune landforms, and areas in need of restoration – the LUP needs to provide policies which address Coastal Act requirements for the protection of public views to and along the shoreline, limitations on alterations to landforms, and provisions for the restoration of visually degraded lands…*[82]

This concern was captured in part in the LUP policy 5.3.3(a) observation that the protected view corridors "will continue to provide broad unobstructed views of the sand dunes, shoreline, Monterey Bay, and the Monterey Peninsual (southbound) or Santa Cruz Mountains (northbound)."

As discussed above, the proposed project will significantly interfere with and entirely block some of the currently existing soutbound public views across the site, primarily through the creation of a very large artificial sand berm. Exhibit 23 represents the views that are currently available based on elevation analysis and that would be affected by this berm. To the extent that these views across the site were intended to be captured by the generally mapped view corridor on Figure 9, the project is clearly inconsistent with LUP policy 5.3.2. Indeed, there is no disputing that such southbound views across the site exist, and have always been identified by the Commission as significant public views. Moreover, even if the requirements of policy 5.3.2 are limited to the mapped triangular area that is zoned for public recreation, which the Commission does not believe to be the intent of the LCP, the project remains inconsistent with the LCP. This is because the proposed development includes structures within the view corridor that is supposed to remain free of structures. This includes proposed condominium development and potentially part of the hotel access road to the facility's garage.[83] Therefore the project is inconsistent with the required protection of the identified view corridor.[84]

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[82] CCC, City of Sand City LUP Determination of Substantial Issue, Findings, 5/21/82, pp. 8-9.

[83] The project also includes public access trails and an overlook within the PR designation/view corridor. The Commission notes, however, that such development is consistent with the allowed uses in the zone and, to the extent that it does not create significant visual impacts, such as by limiting such development to low trails, fencing, and limited signage, would be consistent with the general LCP visual policies and the specifically identified/required vista point within the view corridor (see Figure 9).

[84] The Commission is not finding that no development at all would be allowed within the existing public views across the site, but rather that the project clearly conflicts with the mapped view corridor and causes unnecessary and significant impacts to these important public views because of its scale and design, including the proposed dune feature that would entirely block important views. It may be that a scaled-down development with appropriate screening and design treatment, that did not encroach as much into these protected views, may be consistent with the LCP.

6. Conclusion

It is clear that the project site is part of a significant public viewshed dominated by a relatively undeveloped dune and beach environment. In place of respecting these dune features and integrating proposed site development into them, the Applicant proposes to completely alter the dune landform to accommodate the proposed mixed use development. In addition to proposing extensive grading of protected dune landforms, such dune manipulation also blocks significant public views. In addition, the proposed roads, structures, and related development themselves also block significant public views, and significantly impair these and other views otherwise, transforming the existing open space dune aesthetic and character into a substantially built environment. Although the project includes significant landscaping, including landscaping some roof areas, the project is proposed on such a scale that even the proposed screening cannot change the fact that the new view at this location will be of a series of large structures in the dunes.

In short, the proposed project would result in significant adverse public view impacts. The project has not minimized the loss of visual resources, assured visual compatibility with the site or surrounding area, protected existing view corridors, or, in general, sited and designed the proposed development in such a way as to protect the significant and important public viewsheds associated with the site. As a result, the proposed project cannot be found consistent with the LCP visual resource policies, as cited in this finding above, and thus cannot be found consistent with the LCP in this respect. The scale and scope of the visual impacts are so substantial that conditions are not available or appropriate to adequately resolve the LCP inconsistencies in this respect.

The Commission finds the proposed project inconsistent with the LCP's visual resource policies and denies the CDP.

D. Natural Resources

1. Applicable Policies

The certified Sand City LCP states that there are no Environmentally Sensitive Habitat Areas (ESHA) west of Highway One – an area that includes the project site. This conclusion was affirmed as a matter of law by the Court of Appeals decision of *Security National Guaranty Inc. v. California Coastal Commission (2008) 159 Cal.App.4th 402*. Because of this, the LCP's ESHA policies do not apply to the proposed project, so the Commission must apply only those other LCP policies and ordinances that specifically address the protection of dune landforms and natural resource areas that do not constitute ESHA under the City of Sand City LCP. This includes requirements to implement dune stabilization, restoration, and a habitat protection plan for a specific dune landform mapped on the project site. The LCP also requires that any development be consistent with the protection of natural resources on the site.

a. Protection of Natural Dune Resources & Land Forms

The LCP contains various development standards to ensure the permanent preservation and maintenance

of certain identified sand dune areas, including a major sand dune landform on the project site. LUP Policy 4.3.20 requires the designation of the large dune landform on the project site as an area suitable for dune habitat restoration, and requires this area to be kept in open space; grading is prohibited in this area except in conjunction with habitat restoration:

> ***LUP Policy 4.3.20*** *Designate areas especially suitable for dune habitat restoration on the Coastal Resources Map (Figure 7). These include:*
> …
> *e) three areas west of the freeway north of Bay Avenue designated for stabilization/restoration as part of future development.*
>
> *Require these areas to be maintained in open space, and prohibit grading except in conjunction with an approved habitat restoration activity, ... Permit these areas to be used for restoration or enhancement of native dune plant habitats, establishment of new habitat for rare or endangered species, and in conjunction with approved development for off-site habitat mitigation.*

Exhibit 3 reproduces LCP Figure 7, referenced in LUP Policy 4.3.20, and shows the mapped dune landform on the project site. Figure 7 indicates that this area is designated for "dune stabilization/restoration" within future developments. As discussed in the visual resource finding, this dune area is also identified on the Visual Resources Figure 9 as a "dune preservation, stabilization and restoration area" (see Exhibit 3).

LUP Policies 4.3.19, and 4.3.18a specify the policy standards that must be applied to the mapped dune feature on the project site:

> ***LUP Policy 4.3.19*** *Require implementation of dune stabilization and/or restoration Programs as a part of new developments west of Highway One, in areas shown on Figure 7. Requirements for these programs shall include:*
>
> *a) a professional survey and habitat protection plan including relevant items set forth in Policy 4.3.18a;*
> *b) identification of any grading proposed for recontouring and/or dune stabilization;*
> *c) maximum use of native plant materials, including rare and endangered species;*
> *d) a maintenance program which includes:*
> *1) initiation of restoration activities prior to occupancy of new developments;*
> *2) completion of restoration activities within a five-year period, during which the owner, developer, homeowners association, an assessment*

district or other appropriate management agency accepts responsibility for the restoration activity;
3) permanent preservation and maintenance of the restored habitat by integration with a development's general landscape program, dedication to a public agency, or other method; and
4) effective restrictions for prohibiting vehicular access and managing pedestrian access to and through such areas.

. . . .

h) Native landscape planting and dune stabilization techniques, as recommended in the certified Environmental Impact Report for the regional bike path link (State Clearinghouse Number 93053047). It is recognized that these added native landscape and dune stabilization areas related to the bike path project may be disturbed by future development. However, they shall be protected within the terms of the required easements for regional bike path construction. Any loss of such native plant landscaping on these dune areas shall be offset with the preservation or restoration (revegetation with native plants) of an equivalent dune area not presently restored or preserved, in accordance with the policies of this Local Coastal Program.

LUP Policy 4.3.18.a *Prior to any development or specific plan approval which affects habitat areas identified on Figure 7, a qualified professional botanist shall prepare a plant survey and plan for the affected area that includes:*

1) Description of type and location of existing native and other species;
2) Protection goals consistent with Policy 4.3.20;
3) In habitat preservation areas: methods for controlling public access and eliminating invasive non-native species (ice plant);
4) In habitat enhancement and consolidation areas: irrigation, fertilization and long-term maintenance requirements, and methods of establishing new native plants (e.g., seeding, transplanting) and eliminating ice plant;
5) Mitigation measures for adverse impacts, such as loss of transplants to shock; and
6) A schedule setting forth time requirements for plant establishment, dune stabilization, access controls, etc.;

These LUP requirements are implemented through various provisions of the certified LCP Implementation Plan. First, following the LUP, the IP calls for the "protection and preservation . . . of dune stabilization/restoration areas required as a part of new development" (IP, p. 19). The underlying implementation mechanism for this requirement is a "Habitat Restoration Overlay District" that corresponds to the mapped large dune landform on the project site (see IP Figure 4, Exhibit 3). The requirements in this overlay district are as follows:

Purpose. To provide areas suitable for dune restoration, relocation, and/or stabilization as part of future developments as designated in the Local Coastal Land Use Plan.

Permitted uses. (a) Restoration or enhancement of native dune plant habitats or establishment of new habitat for rare and endangered species;

(b) Grading and other activities necessary to implement a habitat restoration activity;

(c) Native plant relocation as established in the Local Coastal Land Use Plan.

Only the above permitted uses are allowed; no other permitted uses of the underlying district are allowed within this overlay.

Minimum requirements. (a) A biological field survey and habitat protection plan is required to be prepared according to standards established in the Local Coastal Land Use Plan. If the plan includes habitat relocation or off-site restoration activities, it shall he forwarded to the Department of Fish and Game for review and approval. Plans involving rare or endangered species should also be forwarded to the U.S. Fish and Wildlife Service for consultation.

(b) Permanent protection shall be ensured for areas designated as habitat preserves as determined by the required field survey and habitat management plan through easements or dedications to public agencies to be reviewed and approved by the City Attorney and/or the Executive Director of the Coastal Commission pursuant to CZ "Review of legal documents" provisions.

Significantly, the permitted uses in this overlay district are strictly limited to restoration or enhancement of dune habitat, establishment of new habitat for rare and endangered species, grading and other activities necessary to implement habitat restoration, and native plant relocation.

This overlay district also requires that a biological field survey and habitat protection plan be prepared for the area to implement LUP Policy 4.3.19. In addition, it requires the permanent protection of the area through easements or dedications, consistent with the LUP policy 4.3.20 open space requirement. And following LUP policies 4.3.19 and 4.3.18a, the IP includes various specific requirements for the area and the required survey and habitat protection plan:

For dune stabilization and/or restoration programs as a part of new developments, the following requirements shall apply:

a) A biological field survey and habitat protection plan including relevant items set forth above;
b) Identification of any grading proposed for recontouring and/or dune stabilization;

c) Maximum use of native plant materials, including rare and endangered species;
d) A maintenance program which includes:
1) initiation of restoration activities prior to occupancy of new developments;
2) completion of restoration activities within a five year period, during, which the owner, developer, homeowners association, an assessment district or other appropriate management agency accepts responsibility for the restoration activity;
3) permanent preservation and maintenance of the restored habitat by integration with a development's general landscape maintenance program, dedication to a public agency, or other method.
4) effective restrictions for prohibiting vehicular access and managing pedestrian access to and through such areas.

Appendix C lists some native plants appropriate for landscaping in general, which was prepared by the Monterey peninsula Water Management District, and should be used as general landscaping guidelines. (IP, p. 20)

The IP biological survey and habitat protection plan items referenced in subsection (a) are:

The plant survey and habitat protection plan shall consist of the following components:

a) description of type and location of existing native and other species;

b) protection goals consistent with Policy 4.3.21 of the Land Use Plan;

c) in habitat preservation areas: methods of controlling public access and eliminating invasive non-native species (iceplant);

d) in habitat enhancement and consolidation areas: irrigation, fertilization, and long term maintenance requirements, and methods of establishing new native plants (e.g., seeding, transplanting) and eliminating iceplant;

e) mitigation measures for adverse impacts, such as loss of transplants to shock;

f) schedule setting forth time requirements for plant establishment, dune stabilization, access controls, etc.;

g) All habitat protection plans shall include the maximum feasible planting or protection of dune buckwheat (Eriogonum parvifolium and E. latifolium) as a food source for the endangered Smith's blue butterfly (Shijimiaeoides enoptes smithi);

h) An implementation and management component which provides for:

1) fencing, signing, or other appropriate access control measures to be installed as a condition of development (or as a condition of permits for restoration activities if no other development is proposed);

2) responsibility by the developer for habitat installation, maintenance and preservation for at least five years. Permanent maintenance shall also be provided for, with reliance on public and/ or private funding sources and ownership. Options include:

a. contribution of funds by developments requiring habitat preservation/enhancement/relocation measures;

b. dedication of restored habitats to a public agency or private conservation organization with habitat management capabilities.

Finally, the IP also specifies requirements for habitat protection plans that may involve habitat relocation or off-site restoration:

For habitat relocation or off-site restoration, a field survey and habitat protection plan must be prepared. The protection plan must be reviewed by the California Department of Fish and Game, and must demonstrate:

a) The long term suitability of the restored habitat for these species, including but not limited to wind protection, soil condition, and acre-for-acre replacement of habitat;
b) the management methods needed for installation, nurturing, and permanent protection of the restored habitat including but not limited to the method of establishment (seed, hydro-mulch, transplant), and access restrictions;
c) the requirements for successful establishment of each species in another location, after which removal of the original plants may be possible.

b. Protection of Other Natural Resources

In addition to the specific requirements for the large dune landform on the project site, the LCP also requires that new visitor-serving development be consistent with the protection of natural resources. LCP Policy 3.3.1 provides:

Visitor-serving and public recreational uses are given priority west of State Highway One, as designated in the Land Use Plan Map in Section 6.0. Development of these uses shall be consistent with the protection of natural and visual resources.

Similarly, in discussing appropriate development densities for the Monterey Bay Shores site, LCP Policy 6.4.1 states in part:

> …
> *The described [LCP development] densities, both above and below, represent a maximum. As required by applicable policies of the LCP, permitted development intensities shall be limited to those which adequately address constraints including, but not limited to: public access and recreation needs (including adequate public access and recreation facilities inland of the 50-year erosion setback line); natural hazards; dune habitats and their appropriate buffers; and natural landforms and views to the Bay.*

Thus, at a minimum the proposed development density must adequately address any natural resource constraints on the site, and the identified dune landform that must be restored, including any appropriate buffer to assure its protection as restored habitat.

Finally, the LUP also contains three specific policies to assure more general protection of the dune environments in Sand City:

> *4.3.21 Enhance coastal plant communities by requiring new developments to utilize appropriate native coastal plants in landscaping plans that are compatible with existing native species. Prohibit the use of invasive plants in landscaping schemes.*
>
> *4.3.22 All off-road vehicles shall be prohibited on the dunes, except those necessary for emergency and to support coastal dependent uses and shall be limited to existing paths and stockpiles in order to protect dune vegetation.*
>
> *4.3.23 Where major access routes are available or desirable through sand dunes to the coast, boardwalks or other appropriate pathways constructed of permeable materials should be provided to protect the vegetation stabilizing the dunes.*

.

c. Protection of Adjacent Environmentally Sensitive Habitat

Although the Commission is bound by the conclusion that there is no ESHA designated on the project site, it must consider whether there is any adjacent ESHA, not in the City of Sand City, that potentially would be impacted by the proposed development. In particular, LCP Policy 4.3.16 requires, in relevant part, that:

> ***e)*** *New uses proposed adjacent to locations of known environmentally sensitive habitats shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such areas.*

This policy is directly relevant to the adjacent Fort Ord State Park, which lies outside of the city limits upcoast of the project site.

2. Natural Resources Description

a. Background on the Monterey Bay Dunes System

The applicant's site is located in the Monterey Bay Dunes Complex (also known as the Seaside dune system). Geologists (Cooper et al) describe the dune system as having three main components, each layered upon one another with the oldest layers on the bottom: youngest are the Recent dunes, such as those found around Moss Landing and which are still in the process of building. The most ancient are the pre-Flandrian dunes, mostly located inland from Highway One outside the coastal zone.

The highest and most dramatic component of the system is the strand of Flandrian-era dunes, named for an Ice Age event known as the Flandrian Transgression. These high dunes run as a narrow but continuous formation along the shoreline of Monterey Bay, beginning at the Salinas River and extending approximately 13 miles to Monterey Harbor. The dune system traverses a variety of governmental jurisdictions: Monterey County, the City of Marina, California State Parks, City of Sand City, Monterey Peninsula Regional Park District, City of Seaside, the City of Monterey and the U.S. Naval Postgraduate School. The coastal zone boundary through this region primarily follows Highway One which, for the most part, and in the case of this project, is the first public road paralleling the sea. The remnant pre-Flandrian dunes inland of Highway One in the cities of Seaside and Sand City have suffered severe impacts and are mostly already developed. While the high Flandrian dunes are also impacted, at present several largely undeveloped, albeit degraded, sections remain along the shoreline (including the project site).

The project site is located within the Flandrian component of the Monterey dune complex. Coastal dunes are an extremely limited natural resource of statewide significance. Oceanfront dunes provide unique habitat values. Throughout its history, the Commission has placed high priority on the protection and preservation of dune systems. On the Central coast, this includes the Nipomo dunes, Asilomar Dunes, and the Del Monte Dunes (also within the Monterey Dunes complex). At 40 square miles, the Monterey Bay dune complex is one of the largest remaining coastal dune fields in California. However, less than half of the dune field has survived urbanization, conversion to military or agricultural uses, sand mining, and shoreline erosion. According to the Technical Review Draft for the Smith's Blue Butterfly Recovery Plan, U.S. Fish and Wildlife Service:

> *More than 50 percent of the Seaside [Monterey Bay] dune system has been destroyed or altered significantly by sand mining, urbanization, military activities, construction, and the introduction of two aggressive exotic plants, European marram grass (Ammophila arenaria), and iceplant (Mesembryanthemum spp.). Even considering this, these dunes are the largest and best preserved of any of the central California dune systems except for the Oso Flaco Dunes near San Luis Obispo. The dune system at San Francisco has been almost totally destroyed* (Powell, 1981).

The significance of the natural resource values of the Monterey Bay dunes – particularly the Flandrian component along the shoreline -- is well recognized, as is the potential to restore and enhance these values in degraded areas (see more detail below).This is summarized in the Sand City LCP:

> *One of the most distinctive coastal landforms in the Monterey Bay region is that of the Monterey Sand Dune complex, which extends from the Salinas River south to Canyon del Rey. The State and previous Coastal Commission decisions have identified the Monterey Sand Dune complex as one of the largest dune complexes on the west coast, and therefore, as a whole, is characterized as a unique resource.* (LCP, 4.2.4)

More generally, the active coastal dune community (code G3 S2.2; Sawyer and Keeler-Wolf 1995) is considered threatened, having a moderately limited distribution throughout its range, with a limited distribution in California.

Several major dune restoration programs are underway in the vicinity of Sand City. A significant restoration effort has taken place immediately south of the proposed project, on a former dump site that was acquired and remediated by the Monterey Peninsula Regional Park District. To the north of the project site, State Parks intends to protect and restore 700 acres of dune habitat on dunes of the former Fort Ord seaward of Highway One. Other notable restoration areas within the dune system include State Park's restoration efforts at Monterey, Seaside, Marina, and Moss Landing State Beaches, and the Navy's restoration of 44 acres of beach area at the Naval Post Graduate School in the City of Monterey.

One of the more critical functions of the dune system is its role as habitat for a very unique flora and fauna. These are species that are specially adapted to the conditions and opportunities found in the dunes. Dune plants, in particular, play a special role by both stabilizing the dunes from the effects of wind erosion, and hosting rare fauna. However, as the natural dune system has been reduced and fragmented, the risk of extinction has increased for several species. Thus, each new impact within the dunes system has and will continue to contribute to the cumulative decline of these species.

Specifically, several native plants known to occur in the dunes are either already listed, or are on the candidate list for the federal register of endangered and threatened species. These include the Seaside bird's beak (*Cordulanthus rigidus littoralis*), sand gilia (*Gilia tenuiflora arenaria*), Sandmat manzanita (*Arctostaphylus pumila*), Eastwood's ericameria (*Ericameria fasciculata*), coast wallflower (*Erysimum ammophilum*), Menzies wallflower (*Erysimum menziesii*)and Monterey ceanothus (*Ceanothus rigidus*). The Seaside bird's beak is protected under the California Plant Protection Act of 1977. All seven species are recognized as rare by the California Native Plant Society. The sand gilia is both state-listed and federal-listed. Another sand-stabilizing plant species, the Monterey spineflower (*Chorizanthe pungens var.pungens*), is also found in the Monterey Bay dunes, and has been listed in the Federal Register as a threatened species (U.S. Fish & Wildlife Service notice of February 14, 1994).

The U.S. Fish & Wildlife Service has also listed the western snowy plover as a threatened species.

These birds forage along the shoreline and nest in the foredunes of the Flandrian system. The plovers are known to nest in various areas of the dunes, and have been the focus of significant conservation efforts by the State Department of Parks and Recreation (see below for more detail). Another species of concern existing within the dune system is the Smith's blue butterfly (*Euphilotes enoptes smithi*), a federally protected animal species listed as endangered by the U.S. Fish and Wildlife Service. Coast buckwheat (*Eriogonum parvifolium* and *E. latifolium*), are host plants to the Smith's blue butterfly, and occur in clusters that support localized populations of the butterfly. The black legless lizard (*Anniella pulchra nigra*), another native species of the Monterey Bay dunes, has previously been a candidate for federal listing as endangered, and is considered a Species of Concern by the California Department of Fish & Game because of its limited distribution.

The distribution of these dune plants and animals can appear sparse, but over time the entire available dune surface is important to their survival. This is because the Flandrian component of the dunes complex is a dynamic system. The dunes present a rather harsh and difficult growing environment, where the wind keeps shifting the shape of the ground, rainfall rapidly percolates out of reach, and, lacking a distinct topsoil horizon, nutrients are quickly exhausted. Thus, a plant like Monterey spineflower may, over a year or two, use up the available moisture and nutrients at a particular site, and by means of wind-blown seed "move" to a neighboring area. In this simplified model, the original site remains a bare sand surface until life's necessities again accumulate at the original site—thereby allowing recolonization and repeating of the cycle. Therefore, the overall growing area ("habitat") needed over the long run is vastly larger than the area occupied by the plants at any one "snapshot" in time. Because of this the Commission has often found the entire dune surface of an area—not just the locations where the plants (and animals) are found in any one particular year— to be environmentally sensitive habitat (ESHA).[85]

b. Natural Dune Resources on and Adjacent to the MBS Project Site

As discussed above, the MBS site is located within a significant and sensitive ecological system –the Flandrian component of the Monterey Bay dunes complex. However, the LCP concludes that no sites seaward of Highway One can be considered ESHA, including this site. This conclusion derives in part from the fact that the project site was substantially degraded by historic sand mining at the time of LCP certification. As summarized in LCP section 4.2.4:

> *Sand City's Coastal Zone has two distinct dune areas: the area west of State Highway One and the area east of State Highway One. An ecological survey performed in Sand City found that, generally, all dune areas have been highly degraded and are in a disturbed state, especially in the area west of State Highway One. As such, the City's dunes are probably the most degraded within the regional Monterey dune complex.*
>
> *The remaining dune areas also comprise a large portion of the City's vacant land. As*

[85] For example, the Monterey County LCP categorically classifies native coastal dunes as ESHA (see MCO North County Area LUP, Chapter 2.3). .

such, they are left to compete with other land uses and resource demands such as recreation, potential residential/urban development, habitat areas, potential storm protection, and visual resources.

The dunes west of State Highway One are in a severely disturbed state. Due to human uses over time, the original dune landform in this area is generally absent. The majority of the dunes are active, characterized by shifting sand. Little plant life has established itself on these dunes, and where there is vegetation, it is dominated by non-native invasive vegetation. The area provides no natural habitats, although some native species are found. The dunes have other valuable qualities, however, including visual qualities and the potential for wind and, erosion protection when stabilized with vegetation.

. . .…

Future development west of Highway One (where no environmentally sensitive habitats exist) should consider dune management programs as part of the development. Future dune management programs can take the form of stabilization and/or restoration. Dune restoration means that the dunes are restored to their native plant condition. This is a long-range, laborious process which generally cannot be applied on a large scale, and requires rigid control of human access in order to be effective. It appears that dune stabilization is a more practical process than dune restoration; however, it involves utilization of exotic species. While stabilization provides an immediate solution to the problems of active sand dunes, it often leads to long-range elimination of native plant communities. ….

Notwithstanding that the Commission is bound by the statement quoted above that no ESHAs are recognized west of Highway One, there are important dune landform and natural habitat resources that must be protected under other LCP policies. First, the project site contains one of the more significant dune landforms of the Monterey Bay dunes system, which is specifically mapped by LCP Figure 7 (Exhibit 3). As detailed below, specific dune stabilization, restoration, and protection requirements apply to this mapped dune area. Second, biological evaluations have documented that the project site contains significant natural dune resources that were not identified at the time of LCP certification. In addition, since certification of the Sand City LCP in 1985, much has been learned about the important role of specific areas within the dunes, and how both vegetated and barren sand surfaces contribute to the overall functioning of the dunes habitat system--even when these areas are to one degree or another degraded. Thus, it is understood that while there is no ESHA onsite, there are still natural dune resources that must be protected under the LCP. Finally, the site lies immediately adjacent to Fort Ord Dunes State Park, which contains significant dune habitat resources as well.

Identified Dune Landforms on the MBS Project Site

The project site contains a significant dune landform that is mapped in LCP Figures 7 and 9. According to U.S Geological Survey data, the crest of this mapped dune, which rises from sea level to 160 feet, is the highest point within the Flandrian dune component of the Monterey Bay dune system. Although this dune feature has undoubtedly been altered over time by historic sand mining, it has become an important feature of the historic dune landforms along this stretch of coast. USGS maps show that there were significant dunes along this stretch coast in the early 1900s, including at the project site..

When the LCP was certified, the Commission recognized the significance of this dune feature on the project site, along with four other dune areas in the City. As described above, the purpose of mapping the dune features was to protect them for both habitat restoration purposes and visual/landform protection. In protecting these "substantial dune areas" the Commission found:

> *[d]une stabilization and restoration areas offer a high level of public benefit through landform protection, habitat enhancement, and visual amenities*.(LUP Findings, 11/19/82, p. 8)

Recent topographical mapping indicates the large dune form on the project site is essentially in the same location as was generally mapped in the LCP in the early 1980s, though the precise contours have undoubtedly changed due to changing environmental conditions over time, and due to the fact that sand mining of the site ceased in 1986. With respect to vegetation, recent mapping conducted by the applicant indicates that the dune feature is comprised of substantial unvegetated sand areas, coastal scrub/ice plant mix, ice plant dominated areas, some pioneer dune vegetation, a small amount of ruderal/disturbed area, and some patches of high density Monterey Spineflower (see Exhibit 28, p. 2-5).

Other Natural Dune Resources on the MBS Project Site

At just over 39 acres, the project site is the largest parcel on the Sand City shoreline. As summarized above, the dune system on the site has been substantially degraded by sand mining. Nonetheless, biological evaluations conducted over the last several decades document significant natural dune resource values, including evidence of self-restoration of the site to a more natural dune setting. Despite its past history of sand mining, the fact that the site is large and has no existing roads, buildings or other solid surfaces, and that all portions of the site are comprised of sandy surfaces, provides the potential for various natural dune habitat resources to reestablish themselves. These sandy surfaces provide habitat that may be recolonized by the dune dwellers that are found in the Flandrian-era dunes.

The EIR and the Habitat Protection Plan (HPP) prepared for this site by the applicant document various dune plant and animal species on the site, including some recognized sensitive species. Figure 5 of the HPP prepared by EMC Planning Group, Inc., identifies the current location and densities of plant species occupying the site. This updated vegetation mapping from 2006 characterizes the approximate 32 acres above mean high tide as including 10.1 acres of bare sand, 8.2 acres of pioneer dune vegetation, 7.8 acres of iceplant dominated vegetation, 3.8 acres of coastal strand, 1.1 acres of coastal scrub/ice plant mix, and 0.6 acres of ruderal/disturbed area (see Exhibit 28, 2-5). Within the areas of pioneer dune vegetation and iceplant, surveys documented approximately 3.4 acres of Monterey Spineflower and a small area containing 40 seacliff buckwheat plants. The HPP further documents the history and presence

of two sensitive animal species, along with the spineflower (detailed below). The HPP summarizes:

> *Notwithstanding the site's degraded condition, portions of the site have served as actual or potential habitat for the Smith's blue butterfly, western snowy plover, and Monterey spineflower.*

This general observation about the presence of sensitive natural resources on the site is also supported by the U.S. Fish and Wildlife Service's recent correspondence on the site:

> *The project site includes known occupied habitat for the federally endangered Smith's blue butterfly (Euphilotes enoptes smithi) and the federally threatened western snowy plover (Charadrius alexandrinus nivosus) and Monterey spineflower (Chorizanthe pungens var. pungens). All of these species have been documented in recent surveys, including nesting western snowy plovers during the 2008 breeding season.* (Exhibit 29)

The EIR and HPP also describe the various natural habitat resources of the site that have not been specifically listed as sensitive by the state or federal government. This includes the presence of beach and coastal strand species, such as sea rocket and beach bur (HPP, 2-2); habitat for feeding and nesting of marine and shore birds, including foraging waters for Pacific loons, willets, sanderlings and caspian terns and resting/preening areas for gulls on the beach (HPP 2-7); foraging and nesting habitat for small birds in the coastal scrub; and wildlife habitat for the western fence lizard and small mammals such as the deer mouse (HPP 2-8).

Finally, the HPP also states that the site has the potential to support additional rare native animal and plant species of the Monterey Dunes, including the black legless lizard, the California burrowing owl, sand gilia, sandmat manzanita, Monterey ceanothus, and coast wallflower. More detail on the known sensitive species on site follows.

Snowy Plover. One of the most important natural resource values provided by the site is the documented and potential nesting area it provides for the federally threatened western snowy plover. Although the site was recently removed from the "critical habitat area" for this species designated by the U.S. Fish and Wildlife Service, it has provided habitat for the species over the years.

Historic use of the SNG site by snowy plover was documented in the September 1997 HPP prepared by Zander and Associates as follows:

> *Over a five year period (between 1989 and 1994), the Point Reyes Bird Observatory recorded 15 nests of the western snowy plover on the Monterey Bay Shores property along the shoreline and in the interior near the sand pit (Plate 2 [attached as Exhibit 12]). In 1996, an adult male was observed with two separate broods, each with one chick, along the beach below the sand pit (Page 1997). In 1997, one active nest was observed on the beach at the border of the property with former Fort Ord. One brood also used the site during the 1997 season.* ***The beaches on the property continue to***

> ***provide suitable nesting and brooding habitat for the plover as does the relatively flat inland plateau north of the sand pit*** *… (Page 6-7)* [emphasis added]

According to the applicant's biologist, nesting activity in Sand City dropped to just one nest in 1998 compared with 7.8 nests per year on average from 1989 to 1994. While no nests were observed on the site in 1999, a nest was established approximately 100 meters to the north of the project site on the former Fort Ord. According to staff of the USFWS, the chicks that fledged from this nest were brooded in dune areas that included the Monterey Bay Shores site. The importance of the project site as Western snowy plover nesting was again confirmed during the summer of 2000 when two chicks fledged from a nest located on the site.

Declining nesting attempts in Sand City over the mid to late 1990's coincided with plover nesting declines in Fort Ord and elsewhere along the Monterey Bay. The HPP prepared in October 2008 by EMC Planning Group, Inc., noted:

> *Annual reports by [Point Reyes Bird Observatory Conservation Science] PRBO indicate a steady decline in nesting western snowy plover in the Monterey North (Sand City, Seaside, and Fort Ord shoreline) area, including the Monterey Bay Shores project site. For the Monterey North area, PRBO reported a total of 13 plover nests in 1995, seven nests in 1996, four nests in 1997 and four nests in 1998. Only two plover nest sites (which were not on the Monterey Bay Shores site) were reported from the entire Monterey North area in 1999. The chick fledging success of snowy plover in the Sand City area in 1999 was the lowest recorded since monitoring began. In 2000, only one nest was reported (unsuccessful), and by 2005, surveys found no nesting activity along the Sand City shoreline and only one sighting of a snowy plover occurred during the entire survey period…(Page 3-5)*

By 2002, plover nesting was on the increase along Monterey County beaches:

> *In 2002 snowy plovers fledged more than 210 chicks in the Monterey Bay region…Prospecting pairs were observed at Marina State Beach and at Sand City, to the south of the project site, but nesting was not confirmed at these locations. ...During the past decade and continuing in recent years, plover nesting activity has increased at other Monterey Bay area locations, most notably at the Moss Landing Salt Ponds managed by PRBO approximately 12 miles north of the project site. The former salt ponds of the Moss Landing Wildlife Area have emerged as the most productive habitat for snowy plover in the Monterey Bay region. HPP at page 3-5*

Beginning in 2005, plover nesting along the former Fort Ord property north of the project site, was observed with higher frequency. In its January 2007 Fort Ord Dunes State Park Management Plan, data provided by PRBO indicated that after several years of significant population declines, including zero nests and zero fledges between the years of 2000 and 2004, surveys for nesting plovers in 2005 documented 12 nests and 11 fledges and in 2006, 21 nests with 29 fledged chicks. The number of nests

and chicks fledged in 2006 represents the greatest number of nests recorded since monitoring commenced in 1988. Data for 2007 was not obtained, however in 2008 there were 14 nests with 12 fledged chicks. With respect to Sand City, 2008 field surveys documented nesting, primarily on this site:

> *During the eighteen week study period, four plover nests and an additional brood were found within the study area (see Figure 1 on attached PRBO report). One nest was located just north of the Monterey Beach Hotel and three nests were located just south of the [former] Fort Ord boundary. In the same area south of the former Fort Ord boundary, a brood of one chick was observed for which no nest was found. Of the four nests found in the egg stage, three hatched and one failed. Of the three broods that hatched, only the chicks from one nest near the Fort Ord boundary survived to fledgling age. (Zander and Associates, 2008 Western snowy plover surveys, December 4, 2008, page 2)*

An additional plover nest was also identified on the Fort Ord Dunes State Park property about 150 meters to the north.

Smith's Blue Butterfly. The project site currently provides habitat for Smith's blue butterfly, listed by the federal government as endangered. The habitat is located within the northeast corner of the site, and along the swale at the northern border with the former Fort Ord. The current butterfly habitat is directly related to the existence of approximately 40 coast buckwheat plants in this area. The 1995 survey prepared by Zander Associates documented approximately 58 host plants on the Monterey Bay Shores site, and 78 additional buckwheat plants immediately adjacent to the northeast corner of the project site. Additional surveys in 1997, 2000, and 2005 demonstrated that the extent and distribution of buckwheat plants on the Monterey Bay Shores site had not changed –though the expansion of iceplant was threatening to overtake them. The HPP observed, based on a 2006 survey and update prepared by Richard Arnold, that the presence of good quality habitat on the immediately adjacent Fort Ord Dunes State Park property, increased the likelihood that the butterfly would continue to inhabit the northeastern boundary of the Monterey Bay Shores site.

Monterey Spineflower. The Monterey spineflower, listed by the federal government as threatened, was first identified on the project site during site surveys conducted in 1997 by the project biologist. According to the HPP prepared by Zander Associates, "the number of spineflower plants on the project site is not extensive. There are approximately 2.5 acres of low density Monterey spineflower habitat and 0.3 acre of high density habitat in the southeastern and eastern portion of the project site" (page 14). In 2008 approximately 3.4 acres of the project area contained Monterey spineflower, including 2.9 acres of low density Monterey spineflower, 0.16 acres of medium density, and 0.33 acres of high density (EMC Planning Group Inc. 2008). This 3.4 acres represents an approximate 21% increase over the 2.8 acres documented in 1997. In addition, a 2008 botanical survey update shows the dynamic character of the spineflower in the dune setting, with approximately the same amount of plant coverage albeit in different areas of the site from the plants documented in 2000. When considered together, the "active" spineflower area may be closer to six or seven acres of the site. This on-going and potentially expanded

use of the site by the Monterey spineflower may be an illustration of the self-restoration of the site that is taking place.

Natural Resource Values of Degraded Dune Areas. A significant portion (6 acres) of the site, including the beach area, is bare sand. Besides providing nesting habitat for the Western snowy plover, bare sand areas are potentially restorable dune habitat areas that contribute to the long-term survival of the rare plant and animal species unique to the Monterey Dune ecosystem. Similarly, the approximately 7 acres of the site that is currently dominated by non-native iceplant, also represents restorable dune habitat. Removal of the iceplant, which can occur naturally (via heavy frost or disease) or with human intervention, would enhance the native dune resources currently provided by the site, and assist in the recovery of this resource throughout the dune system. Recovery and expansion of native dune habitats on the project site is facilitated by the absence of European beach grass, a non-native invasive species that has degraded native habitats elsewhere in the Monterey Bay Dunes and which is difficult to eradicate.

Adjacent State Park Property

The Monterey Bay Shores project site shares its boundary to the north with Fort Ord Dunes State Park (FODSP). The 979-acre park includes four miles of beach along Monterey Bay and is bordered by the city of Marina to the north, Highway One to the east and Monterey Bay to the west. There is an additional 11 acres of property east of the highway outside the coastal zone. The FODSP west of Highway One is also located in the Monterey Dune complex and is comprised entirely of coastal sand dunes of the Flandrian variety.

Despite the degradation of natural habitat values that has occurred as a result of previous military uses at Fort Ord, the park contains significant habitat area for sensitive plant and animal species. The FODSP General Plan indicates that at least six special-status plant species and four special-status animal species are known to exist or to have historically existed within the Park boundaries. Special-status plant species known to exist within FODSP include three federal or state listed species: Monterey spineflower, Yadon's wallflower, and sand gilia; two federal species of concern: coast wallflower and Monterey ceanothus; and one CNPS List 1B species, sandmat manzanita. Four listed animal species are known to occur, or have historically occurred, within the boundaries of the Park. These include two federal or state listed species, Smith's blue butterfly and western snowy plover; and two federal species of concern, globose dune beetle and black legless lizard. As a result of the presence of these rare and endangered plant and animal species and given the scarcity of the underlying dune sands, the Commission concluded that the entire 979-acre site was environmentally sensitive habitat:

> *As noted by the FODSP General Plan, dune landforms represent one of California's most degraded communities with few naturally functioning systems left in the State. Although partly degraded, the dunes within FODSP are an important component of the Monterey Bay dune system and vital to the protection and recovery of native dune plants and animals. Because such dunes are an extremely limited environmental resource of*

statewide significance and provide unique, sensitive habitat values, they constitute environmentally sensitive habitats as defined by the Coastal Act (Adopted Staff Report for Coastal Permit Application 3-06-069, Page 17).

c. Proposed Natural Resources Protection Measures

The applicant has proposed various measures to protect natural resources on the site and comply with the LCP, including preparing a Habitat Protection Plan. The HPP proposes four management areas for the site: the beach and strand; foredune and secondary dune; back dune; and developed areas. As presented in the HPP, measures to protect resources in these areas include: avoidance of certain sensitive habitat areas, including some potential habitat areas for the western snowy plover and all the currently identified Smith's blue butterfly habitat; dune creation and stabilization; control of exotic species; revegetation and habitat enhancement; salvage of plants prior to disturbance of the site and transplantation to restoration areas; pre-construction surveys in developed areas; habitat protection during construction, including use of a biological monitor; post-construction management measures, including establishment of a "dynamic 2-acre nesting protection zone" for snowy plovers; and permanent protection of restored habitat areas . Overall, the project includes a dune restoration program designed to restore and protect dune habitats on 13.85 acres of the site that would be placed in a conservation easement (see Exhibit 11). Additional dune species revegetation will take place on an additional 9 acres or so (on tops of building roofs, and for landscaped grounds and gardens). The Applicant also has committed to an environmental trust fund that would include an endowment to manage the restoration and revegetation areas. More detailed discussion of these proposed measures is provided below.

3. Consistency Analysis

a. Protection and Restoration of Designated Dune Landforms

As detailed previously, the project site contains a mapped dune landform that must be protected and restored pursuant to the LCP. Exhibit 3 reproduces LCP Figure 7, referenced in LUP Policy 4.3.20, and shows the mapped dune landform on the project site. Figure 7 indicates that this area is designated for "dune stabilization/restoration" within future developments. As discussed in the visual resource finding, this dune area is also identified on the Visual Resources Figure 9 as a "dune preservation, stabilization and restoration area" (see Exhibit 3). This mapped dune is also protected by the IP's corresponding habitat restoration overlay district (Exhibit 3). Significantly, the permitted uses in this overlay district are strictly limited to restoration or enhancement of dune habitat, establishment of new habitat for rare and endangered species, grading and other activities necessary to implement habitat restoration, and native plant relocation.

The intent of the mapped dune feature of Figure 7 and LCP policies cited earlier is to protect and restore this dune feature consistent with various habitat protection goals. Although the precise edges of this dune feature, as well as its general morphology, have undoubtedly changed somewhat since LCP

certification, recent topographic mapping show that the land form is generally in the same location as when it was originally mapped in the LCP.[86] Regardless of its precise location, though, it is clear that the current development proposal is not consistent with the relevant LCP requirements. The applicant has proposed various measures to restore and protect portions of the dune form (see Exhibit 28, section 4.3.3). However, the development also encroaches into this sand dune habitat restoration area with development that specifically is not allowed by the LUP or IP overlay.

Exhibit 25 illustrates the roughly approximated location of the dune feature based on current topographical conditions. When compared to the proposed development footprint, it is apparent that at a minimum, the entrance turn-about, Sand Dunes Drive extension, hotel driveway and port cochere, garage access, underground parking garage, and some hotel and residential condominium facilities are located in this area designated for dune restoration and preservation. Construction of these facilities will require grading of the protected dune, but the LCP clearly prohibits grading of this area except for habitat restoration purposes. In addition, the LUP and IP require that this area be kept in open space, and no structures are allowed in it. As proposed, the project will eliminate approximately one acre of the roughly five-acre L-shaped dune restoration area. The Land Use Plan policies mandate that this area be reserved for restoration and enhancement of native dune habitats, which would create new habitat for rare or endangered species. Rather than restoring and stabilizing this dune area and preserving it as open space, however, the project would result in the removal of approximately 20% of the protected area, inconsistent with the LCP. Therefore, the project is inconsistent with LUP policy 4.3.20 and the IP's habitat restoration overlay district.

To the extent that restoration-related grading of the duneform is proposed, it is not clear how the proposed grading results in natural dune restoration. The HPP generally describes the proposed grading as follows:

> *Finished slopes of newly created or recontoured dunes will be designed in collaboration with the project geotechnical engineer to ensure that the slopes are in a stable configuration prior to any revegetation work. Steepness of slope, wind direction and soil substrate must all be considered in the design of new dunes and recontouring of existing dunes. (HPP, 4-10).*

No detail is provided on the specific basis for the proposed recontouring of the large dune land form. However, the proposed construction clearly entails significant grading of the landform that will substantially change its height and shape. Cresting at just over 160 feet in height above sea level, this dune feature is the largest and most recognizable in the Monterey Dune complex. As proposed, the overall height of the dune crest would be lowered to 145 feet and the unique wind-formed contours of the dune feature would be recontoured into an engineered triangular shape (see Exhibit 4). Such grading may make sense in order to facilitate the proposed location and structural design of the development on

[86] The dune has remained fairly stable over time –that is its present shape does not differ significant from that of over 25 years ago. It has enlarged and broadened somewhat, as would be expected from a quarter-century of wind-driven sand transport onto its steep slopes.

the site, but it is not clear how it will result in restoration and protection of the significant dune land form. Nor is any detailed scientific dune restoration basis provided to explain the proposed grading in the required restoration area. To meet the intent of the LCP's required restoration of this dune feature, a habitat protection plan should more fully evaluate the site and the dune feature with respect to environmental conditions such as wind, and dune morphology, in order to establish an appropriate restoration grading plan. Although some grading of the dune feature may be appropriate, the basis of such grading should be to reestablish a more natural dune morphology and habitat regime, and the conditions necessary for maintaining, or providing for, a more natural dune morphology and habitat over time.

Related to this point, a restoration plan for the mapped dune should also address how adjacent development and other conditions might affect the dune restoration. For example, it may be appropriate to have a buffer or development setback from the restored dune, both to provide better protection of habitat functions, and to minimize interference with wind dynamics and sand movement that work to maintain a more natural dune area over time. As proposed, the project may adversely affect the dune stabilization and habitat restoration area by introducing significant amounts of noise, light, pets, and human activity, unnaturally attracting wildlife that is tolerant of or benefited by urban conditions (i.e., corvids, skunks, non-native ants, etc.), and which may have negative impacts on native communities. It is not clear from the proposed habitat protection plan how these potential impacts will be addressed. Finally, the final proposed grades for the sand dunes in the vicinity of the new development will almost assuredly require ongoing maintenance and sand redistribution activities to remove excess sand buildup and reestablish the slumping dune from behind the structure. Such maintenance may conflict with the objective of dune restoration and habitat maintenance.

Conclusion: As proposed, the project is clearly inconsistent with LCP requirements (4.3.20) to protect and restore the large dune feature on the site. Although the project does propose restoration of much of the dune area, and a permanent conservation easement will be recorded over this area, the project remains inconsistent with the LCP. To be approved, a project must keep the entire mapped dune feature in open space, and a dune restoration plan must be developed that addresses both dune morphology and habitat over time. The plan should evaluate any necessary recontouring/restoration of dune morphology in order to maintain a more natural dune landform. No grading should occur within the area except for that necessary to support the goals and objectives of the dune restoration plan. Appropriate buffers should also be evaluated as part of the restoration plan. Given the other significant inconsistencies of the project with the LCP, and because the Commission is not in a position to propose the substantial redesign of the project that would be necessary to accomplish these LCP requirements, the project must be denied at this time. Any future project will need to better address this major site constraint.

b. Protection of Other Natural Resources on site

As described above, the project site contains a variety of natural dune resources that must be protected pursuant to LUP policy 3.3.1. Although substantial degraded, the site supports various dune plant and animal species, including several sensitive species. In addition to the Habitat Protection Plan, the

applicant has prepared an addendum to the 1997 EIR for the site. In general, the applicant has evaluated the significance of the project impacts to the natural resources at the site through a comparison to the 1997 "baseline" of environmental impacts. The table below from the EIR and HPP summarizes the major vegetation types and sensitive species on site, and shows this comparison:

Table 4.4-1
Comparison of Project Impacts to Vegetation and Special Status Species

Resource	Total Area Existing on Site in 1997	Approximate Area Proposed to be Removed/Affected by Previous Project (as defined in 1998 FEIR)	Total Area Existing on Site in 2006	Approximate Area Proposed to be Removed/Affected by Revised Project
Vegetation Types				
Coastal Strand	4.2	4.2 acres	3.8 acres	2 acres
Pioneer Dune	9.2	9.2 acres	8.2 acres	8.2 acres
Coastal Scrub/ Iceplant Mix	2.8	2.6 acres	1.1 acres	0.6 acres
Iceplant Dominated	2.1	1.9 acres	7.8 acres	7.3 acres
Ruderal/Disturbed	2.1	1.6 acres	0.6 acre	0.6 acre
Bare Sand	11.6	11.2 acres	10.1 acres	9.1 acres
Total	**32 acres**	**30.7 acres**	**31.6 acres**	**27.8 acres**
Special Status Species				
Smith's blue Butterfly hostplants (buckwheat)	58 plants	58 plants	40 plants	0 plants
Monterey spineflower	2.8 acres	2.6 acres	3.4 acres	3.4 acres
Western snowy Plover	not quantified	removal of historic nesting habitat	not quantified	removal of historic nesting habitat

As summarized in the table, and as indicated by the proposed grading and construction for the site, the project will initially impact almost all of the site, including removing most of the native vegetation. Including the dune restoration area discussed above, the proposed project includes 693,000 cubic yards of grading. As the table indicates, nearly 88% of the site (27.8 acres) is proposed to be removed or directly affected. This includes a significant amount of grading seaward of the proposed development, and the removal of all but one acre of vegetation on site.[87] As a consequence, all of the foredune vegetation used by nesting shorebirds, including "historic nesting habitat" for the western snowy plover, will be removed. The entire seed-bank for native coastal dune plants, including rare and endangered plant species, will be displaced. The currently documented 3.4 acres of Monterey spineflower will be completed removed, as will the area of spineflower occurrence documented in 2000.

[87] Approximately one acre of sand dunes along the northern boundary containing dune buckwheat plants would be retained to preserve the host plants for the federally protected Smith's blue butterfly.

Proposed methods of minimizing and mitigating these impacts are included in the HPP and the addendum to the Final EIR. In summary, the graded and recontoured dune topography outside of the proposed development envelope would be replanted with native dune plant species. Approximately 13.85 acres of the 32 acres of the project site above the mean high tide line would be placed in a conservation easement and protected/restored as dune habitat, including a portion of the dune habitat restoration area in the southeast corner of the site. Approximately 5 acres seaward of the conservation area would be placed in a "floating" public access easement area; and approximately 9 acres of "green landscaping" would be installed within the 14-acre footprint of the resort development, including on some of its roofs. The HPP also proposes an adaptive 1.9 acre "floating" plover management area suitable for nesting habitat, with monitoring and potential exclusionary fencing for any nests that may be found year-to-year. Other notable mitigation measures include complete avoidance of existing buckwheat plants and provision of 3.4 acres of Monterey spineflower habitat through restoration measures.

The specific provisions of the HPP are intended to minimize the impacts of project construction on existing dune habitats and sensitive species, and to facilitate the enhancement of native dune habitat values on the 13.85 acres of the site outside of the development footprint. A particular emphasis is placed on establishment of habitat that will benefit the rare plants and animals of the Monterey dune system.

The certified LCP requires that development be consistent with the "protection of natural resources" (LUP Policy 3.3.1). The LCP does not define "natural resources" or otherwise provide guidance on what would constitute protection. However, the Commission finds that there is more than substantial evidence of the presence of "natural resources" on the site, as documented by the various environmental studies of the site since LCP certification. This includes the evidence presented in the 1997 EIR, the 2009 EIR addendum, and the HPP prepared by the applicant.

With respect to the evaluation of the protection of these resources, the Commission recognizes that the typical ESHA protection requirements of Coastal Act 30240 that are embodied in the Sand City LCP (such as the requirement that only "resource-dependent" development be allowed within ESHA and the requirement of no significant disruption) do not apply to the site because the natural resources of the site do not, as a matter of law, constitute ESHA. However, the Commission does find guidance on how to analyze what would constitute adequate "protection" in the requirements of the California Environmental Quality Act (CEQA). Pursuant to Section 13115 of the Commission's regulations, the Commission must consider the de novo portion of an appeal in accordance with the procedures in Sections 13057-13096. Section 13096 requires the Commission to find that the application is consistent with CEQA. In addition, the proposed development requires a planned unit development (PUD) approval, and that approval also requires the project to be consistent with CEQA, including explicitly in terms of appropriate environmental review. (IP Section 3.2). Thus, there is an explicit requirement to find CEQA consistency. The Commission finds, therefore, that it is reasonable to analyze the natural resource protection issue consistent with the manner in which biological and other natural resources are analyzed under CEQA.

Section 21002 of CEQA (Cal. Public Resources Code §21002) prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant adverse effect which the activity may have on the environment. The definition of "feasible" for purposes of CEQA is the same as the Coastal Act definition:

> *"Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.*

As discussed in other findings of this report, development of the project site must address significant resource planning constraints, including the presence of a mandatory dune restoration area, significant geological hazards, and protection of important public views. Together, these constraints require a considerably reduced project footprint, both in surface coverage and physical volume. If such a revised project were pursued, it would also necessarily reduce the direct impacts to natural resources, including impacts to Monterey spineflower habitat. However, even if the Commission considers only the natural resource constraints of the site, including the protected dune landform, there appear to be feasible alternatives to develop the project site at a reduced scale in order to better avoid and mitigate impacts to the site's natural resources.

Grading of the Site is Excessive

Although the project site is degraded, the EIR documents significant direct impacts to natural resources through grading of 88% of the site or 27.8 acres. The EIR and addendum conclude that the "disturbance of +30 acres of [the] site's wildlife habitat for 2-3 years during construction" is less than significant because it is temporary and reversible; however, the EIR also concludes that the potential displacement or harm to migratory birds and nests, including western snowy plover, during construction, is potentially significant if unmitigated. The Commission disagrees that grading and disturbance of 88% of the site for 2-3 years is insignificant.

More specifically, the current proposal *unnecessarily* alters nearly the entire site through extensive grading. For example, it appears unnecessary to grade and excavate the dunes in the northwestern corner of the site, particularly given this area's physical adjacency to the protected dune landform of the site. No development is proposed in this area except for an access trail and viewpoint that could be (and is required to be) developed with minimal grading, more consistent with the protection of natural landforms. Similarly, it is unclear why the project proposes substantial grading (i.e. lowering) of the foredune across the property. There is limited discussion in the HPP about grading of "microtopographic contouring" to attract snowy plovers to the site. Although no sensitive vegetation is currently documented in this area, there are other natural resource values to the foredunes, the alteration of which should be avoided if feasible unless there is a restoration purpose for the grading. In particular, this area is the most likely location for snowy plover activity, including nesting. As discussed in other findings, this grading down of the foredunes also is exacerbates visual impacts of the development, and increases

shoreline hazard risks.

More generally, given the current vegetation mapping of the site from May of 2008 (exhibit 27), it would appear feasible to limit the development footprint on the site to the bare sand area southwest of the major Monterey spineflower occurrence (i.e. the historic sand pit area). In order to avoid the protected dune on the site, access to this potential development area would need to traverse the spineflower area to some degree. However, it does not appear necessary to grade the entire Monterey spineflower area on the northern portion of the site in order to develop a visitor-serving project. Similarly, the proposed created "dune" on the northeast portion of the site does not appear necessary in order to develop in the interior of the site. Thus, there are feasible alternatives that would further protect Monterey spineflower in situ, either through direct avoidance or through significantly reduced direct impact. More detail on specific impacts to spineflower is discussed below.

Impacts to the Monterey spineflower

Construction of the proposed project would result in the direct removal of an estimated 3.4 acres of Monterey spineflower – a plant listed as threatened by the U.S. Fish and Wildlife Service. This includes a few patches of low and medium density plants growing within the designated dune habitat restoration area in the southeast corner of the site. The EIR and addendum conclude that this impact is significant if unmitigated. The project would also directly remove areas of the site where spineflower was previously documented (see exhibit 27). This impact is not directly addressed by the current EIR addendum. Thus, the direct impact to areas that either provide or have provided spineflower habitat is much more than 3.4 acres. The HPP recommends reestablishing approximately 3.4 acres (1:1 replacement) of Monterey spineflower on the project site.

The project is inconsistent with Policy 3.3.1 because, as discussed above, it appears feasible to develop the site without impacting the Monterey spineflower to such a degree. Moreover, even if the removal of this flower were consistent with the LCP requirement to protect natural resources, the proposed 1:1 mitigation for the loss of existing threatened habitat would not satisfy the Commission's typical requirements for adequate mitigation when habitat impacts are necessary. The Commission usually requires 3:1 or even 4:1 mitigation ratios, depending on the circumstances, in order to assure that the ultimate restoration/mitigation plan results in maintaining the habitat in as good or better condition than that being impacted. Restoration success is tenuous, particularly when transplantation is used, and experience has shown that higher acreage mitigation ratios are necessary to assure full mitigation.[88] More generally, protecting rare plants in situ, if feasible, is a superior way to better assure protection of the plant, as opposed to the uncertain success of transplanting or seeding. Thus, the proposed mitigation is not sufficient to reduce the impacts to Monterey spineflower to less than a significant level.

Impacts to the Snowy Plover

The EIR and addendum documents assess the potentially significant impacts to natural snowy plover

[88] See, for example, CNPS 1989 and 1998 policies on transplanting as mitigation.

resources caused by the proposed direct removal of historic western snowy plover nesting habitat, construction disturbance of nesting habitat for 2-3 years, loss of plover nests due to increased human activity, and increased disturbance and predation of plovers due to lighting and increased human presence. Initially in 1998, project impacts on the federally threatened Western snowy plover were described in the Final EIR as follows:

> *On-Site: The Monterey Bay Shores project will affect western snowy plover nesting habitat on the site and may result in "take" of snowy plovers. Construction of the project will displace documented nest locations. Construction-related activity and noise on the property could discourage plovers from using the remainder of the site for the duration of construction. Although reestablished plover nesting habitat is proposed as part of the project, the extent of available plover habitat on the site following construction may be less than that existing today. Furthermore, the proximity of a new hotel/resort complex and increased access to and visitor use of the beach and strand area could limit or preclude future plover use of the property.*
>
> *Off-site: The project has the potential to increase off-site impacts to the population of plovers using the Sand City shoreline. A destination resort and public access at a new location on the shoreline will introduce a new point source of human use into the shoreline environment. Increased, unrestricted use of the shoreline by people and pets resulting from the MBSR project could affect plovers at nesting, brood-rearing and foraging sites throughout Sand City. Finally, the cumulative effects of the MBSR project on western snowy plovers in combination with other planned or proposed shoreline projects in Sand City, are potentially significant.*

In 1998 the project was included within the USFWS designated critical habitat designation for Western snowy plover. As a result, the USFWS required that a Habitat Conservation Plan (HCP) be prepared for the site to address potential take of the species. The USFWS revised this designation, though, including removing the project site from the critical habitat based on an evaluation of the economic costs associated with maintaining the designation over the project areas. In the addendum to the Final EIR, project impacts and mitigation for Western snowy plover are described as follows:

> *Based on the available data, the revised project will not result in any impacts on biological resources not identified for the previous project. …it will include adaptive management of the beach, strand, and foredune areas on the property to protect nesting snowy plovers, and it will dedicate conservation easements over restored habitat outside of the developed area.*

Citing a decline in plover nesting on site, changes in nesting patterns within Monterey Bay, and the USFWS decision to remove the Sand City shoreline from critical habitat designation, the addendum to the Final EIR concludes that the likelihood for "take" or incidental take of the plover has declined in the years since the Final EIR was certified:

> *Take is not expected, nor is the construction or operation of the ecoresort expected to significantly impair plover essential behavior patterns. As a result, an incidental take permit is not expected to be required, with the proposed mitigation measures, and Habitat Protection*

Plan. (Addendum to Final EIR, pp. 52 – 53)

The Addendum to the Final EIR states that the proposed HPP would act as a functional equivalent to an HCP and that the revised HPP mitigation strategy is equivalent to the previous commitment to develop a Habitat Conservation Plan for submittal to USFWS.

To reduce project impacts on the western snowy plover, the addendum to the Final EIR requires: pre-construction surveys for active breeding/nesting on the project site to avoid disturbance of nesting plovers during the plover nesting season; a qualified biologist be on-site to monitor Western snowy plover activity and construction activities; pre-construction conference with equipment operators and field supervisors; establishment of a 2-acre nesting protection zone; adaptive management and access plan; conservation easements; annual review of biological conditions; predator management plan; coordination with Sand City and State Parks; and an Environmental Trust Fund contribution.

Although recent nesting activity on the project site is less than documented in the 1990s, the project site still provides snowy plover nesting and other habitat values. As cited previously, USFWS has concluded that the site provides known occupied habitat for the species:

> *The project site includes known occupied habitat for . . . the federally threatened western snowy plover (Charadrius alexandrinus nivosus) …. All of these species have been documented in recent surveys, including nesting western snowy plovers during the 2008 breeding season.* (Exhibit 29)

Similarly, observations from the July 2008 survey completed by the Point Reyes Bird Observatory (PRBO) underscores the importance of this site as nesting habitat for the Western snowy plover:

> *Because the Sand City area is adjacent to another occupied nesting area [Fort Ord Dunes State Park] the potential exists for managing the beach as a contiguous nesting area.*

To date, the USFWS has not identified any specific mitigation requirement for snowy plover or other species:

> *The HPP describes a program to avoid, minimize, and mitigate potential impacts to federally listed and other special status species. The HPP outlines biological goals that would avoid and minimize impacts to listed species; regulate construction activities; and provide, preserve, restore, manage, and maintain habitat. The project is expected to avoid the buckwheat host plants for the Smith's blue butterfly; regardless, host plants would be included in revegetation efforts. The HPP also describes provisions in the design to re-establish Monterey spineflower in areas where it would be removed by grading. In addition, a program for providing, protecting, and managing habitat for western snowy plovers is outlined including provisions for adaptive management to adjust to nesting plovers when they may occur on the property.*

A commitment to fund and implement the actions described in the HPP would help ensure that potential impacts from the proposed project are avoided or minimized. The changes to the project design and proposed management actions may offer benefits to listed species on the project site. (Exhibit 29)

Regardless, the Western snowy plover habitat protection and restoration objectives included in the project do not ensure the effective protection of the Western snowy plover natural habitats within and adjacent to the project. First, most of the proposed pre- and post-construction management strategies have not been developed beyond the conceptual ideas identified in the addendum or detailed in the submitted Habitat Protection Plan, and thus the Commission is unable to evaluate whether or not they would be effective in mitigating potential impacts on nesting/foraging plovers.

Second, the project will displace and significantly alter documented nesting locations. While snowy plovers do not establish permanent nests that remain from year to year, they do exhibit high nest site fidelity. Most recently, data provided by the PRBO indicates that there were three nests recorded on the beach fronting the Monterey Bay Shores development site in 2008. Another brood was observed using the MBS site and an additional nest was recorded just north of the property boundary at Fort Ord Dunes State Park. The project site is the preferred location in Sand City for nesting plovers due to proximity to adjacent nesting sites (i.e., Fort Ord Dune State Park property), distance from the nearest public beach access (i.e., Tioga Avenue), and site topography which provides a significant back beach area for nesting and brooding plovers.[89] Snowy plovers return to nest in specific locations because they have particular nesting needs. Though the project intends to establish new nesting areas and "re-attract plover nesting to the site," it is unclear that, following the significant landform alterations proposed as part of the project, ongoing construction activity over multiple years, and the increase in noise, glare, proximity to structures, and human activity, that the site will continue to provide viable habitat for this species.

Third, impacts associated with an increase in human use of Western snowy plover habitat areas on and adjacent to the site are proposed to be controlled by the presence of a biological monitor. The ability of the steward to effectively manage plover habitat consistent with the significant increase in human use of the area is questionable. It is unclear how the presence of a biological steward will mitigate for the impact of the development itself, particularly given its scale and intensity. Even with the steward, the light, noise, physical presence, and increased human presence will remain. The Final EIR prepared in 1998 concluded, on page 23, "…noise, light, glare, proximity to structures and human activity and other indirect effects on plover nesting habitat may limit the plovers' ability to establish nests on this site regardless of the steward's efforts."

Impacts to Smith's Blue Butterfly

As discussed, the proposed project includes grading over approximately 88% of the project site with the

[89] Personal communication with Kriss Neuman, Point Reyes Bird Observatory Conservation Science, February 18, 2009.

exception of the beach area below 20' mean sea level, and the sand dunes containing seacliff buckwheat plants growing adjacent to the northern property boundary. The HPP estimates that these plants currently provide habitat for between 4-12 individuals of Smith's blue butterfly. The project proposes to restore about 1.4 acres of coastal dune habitat suitable for use by Smith's blue butterfly. The restoration of this habitat is primarily associated with the proposed recontouring of the site; a new dune formation intended to provide restored habitat and to hide the development from the view of motorists traveling along Highway One would be created in the northeast corner of the site. Following grading and construction of the project, 400 seacliff buckwheat plants would be planted.

While restoration efforts in other areas of the Monterey Dunes have demonstrated that the revegetation of dunes with buckwheat can be accomplished, it remains unclear whether this proposal will provide productive habitat for the Smith's blue butterfly. Of primary concern is the grading and disturbance of all surrounding native dunes, and the associated impacts to the existing butterfly population resulting from altering the existing topography which currently provides the right combination of sun exposure and shelter from the predominant northwest winds that are favored by this species. Although such grading is unlikely to significantly affect the butterfly, neither the HPP nor the addendum to the Final EIR discuss the potential impacts of the sand redistribution activities on Smith's blue butterfly.

Mitigation Measures Insufficient

The HPP does not provide sufficient detail to conclude that the Plan will be effective in mitigating potential impacts associated with the proposed development. For example, there does not appear to be a schedule for ongoing maintenance or monitoring of the restored areas. The HPP provides general "biological objectives" for each management area as opposed to more specific enforceable success criteria, and there does not appear to be any contingency requirements in the event that the restoration goals are not met.

Moreover, the HPP indicates that more than 23 acres of the site will be restored to native dune habitat – including roughly 9 acres on the development grounds. There are benefits to planting native vegetation in, and around the development grounds, rooftops, gardens, etc., as it helps blend the development into the environment, adds natural ambience, and provides modest ecological benefits. However, this green landscaping will be much more highly disturbed by lights, noise, and human activity than natural habitat, and as a consequence does not rise to the level the Commission generally expects of mitigation. Commission staff is also not aware of any studies or information that would support the applicant's assertion that it can successfully establish dune habitat areas as part of the "living roofs" feature of the project. It is unclear how the applicant will establish living roofs consisting of dynamic sand ecosystems, given the windy conditions at the site.

c. Impacts to Adjacent Fort Ord Dunes State Park ESHA

As discussed above, the Fort Ord Dunes State Park is home to at least six rare or endangered plant species and two species of rare animals, including western snowy plover. The entire 970-acre coastal dune site is a designated environmentally sensitive habitat area. After several years of decline, nesting

snowy plovers have returned to Fort Ord in each of the past four years, with double-digit nesting and fledgling counts each year. This past year (2008) at least one of the 14 nests recorded on the Ford Ord property occurred within 150 meters of the SNG property boundary in Sand City. Another brood was observed in the vicinity of the Monterey Bay Shores site. Surveys failed to locate the nest for this brood within the Sand City survey area, raising the possibility that the brood traveled from another nearby location.[90] Nevertheless, these observation indicate an expanding population of plovers in Monterey Bay and suggest a return to historic snowy plover nesting sites along Fort Ord and Sand City shorelines.

The addendum to the Final EIR failed to fully acknowledge the recent nesting success along Fort Ord, instead asserting that all nesting activity was occurring north of the former Stillwell Hall and elsewhere in Monterey Bay. As such, there is very little discussion of the potential project's impacts to adjacent plover habitat and nesting plovers in Fort Ord. The Fort Ord State Park beaches are designated by USFWS as critical habitat for the snowy plover. As previously discussed, the proposed project is likely to introduce a much greater level of urbanization and human use and disturbance into the area that may adversely affect nesting plovers, both directly and cumulatively. The LCP requires new development adjacent to known environmentally sensitive habitat areas to protect said resources and to ensure its biological continuance (LUP Policy 4.3.16.e). Without more detailed assessment of the potential impacts to adjacent plover habitat, it is difficult to conclude whether the project is consistent with this policy.

3. Conclusion

There are numerous outstanding issues that preclude a finding that the project conforms to LCP standards protecting natural resources. The project is clearly inconsistent with requirements to restore and protect the large dune landform mapped on the site. The project will result in a permanent net loss of approximately 20% of the dune restoration area identified on Figure 4 of the Zoning Map, and Figure 7: Coastal Resource Map. The LUP requires that this area be preserved as open space, that it be restored and stabilized, and that any grading of the area be solely in conjunction with an approved restoration activity. The project does not meet any of these criteria. The project also fails to sufficiently avoid and minimize direct impacts to natural dune vegetation and habitats, including significant impacts to documented Monterey spineflower. Grading for the project appears excessive, and not necessary in some areas to provide for feasible development of the site. There appear to be feasible alternatives, albeit of reduced scale, that would increase protection of natural resources while still providing a viable visitor-serving project. Related to this point, the Commission notes its 1997 approval of the Marina Dunes Resort (now the Sanctuary Beach Resort), in the City of Marina dunes system upcoast from the project site. The approved project provided for 5.5 acres of development on an approximate 18 acre site, or about 30%. The proposed project would eliminate, without adequate mitigation, 3.4 acres of the Monterey spineflower, a federally protected species. Finally, the proposed Habitat Protection Plan is lacking in detail to fully assess the proposed mitigation and whether it is adequate to avoid significant

[90] USFWS staff have observed plovers traveling to the Monterey Bay Shores site from distant nesting locations to rear their brood (Personal Communication on February 19, 2009 with David Pereksta, Assistant Field Supervisor, USFWS).

impacts to natural resources.

Because of the inconsistencies of the project with the certified LCP, and because the project would require significant redesign to address LCP requirements, the Commission must deny the project at this time.

E. Traffic and Circulation

1. Applicable Policies

The LCP requires adequate circulation and parking as part of new development projects. Development within the CZ-VSC, CZ VS R-2, and CZ-R2 zone districts applicable to the subject site also require a planned unit development permit,[91] approval of which requires that such development not create traffic congestion. Applicable LCP LUP and IP policies include:

> ***LUP Policy 6.4.10.*** *New development shall be approved only where water and sewer services are available and adequate; and where adequate circulation and parking has been provided for.*
>
> ***LUP Policy 6.4.24.*** *Require future development in the Coastal Zone area to provide safe adequate streets, parking and loading.*
>
> ***IP Section 3.2 (Planned Unit Development Permit, Findings Required).*** *… Any development that is needed as part of the development scheme at the proposed location will not create traffic congestion, has adequate off- and on-site parking,…*

2. Traffic and Circulation Patterns

The Sand City coastal zone is bisected by State Highway One, which is the primary shoreline access route through this part of the coast. The project site is located just seaward of the southbound Fremont Boulevard off-ramp from Highway One.[92] The Fremont Boulevard off-ramp delivers vehicles to the area inland of the Highway where the majority of developed Sand City is located, including major commercial development immediately east of Highway One, and other roads providing circulation through Sand City proper (including Fremont Boulevard itself, California Avenue, Ord Avenue, Monterey Road, and Del Monte Boulevard). Access to the site from the Fremont Street off-ramp requires a turn onto California Avenue which extends under the highway to the sand dune area west of the highway, then turns abruptly to the downcoast (paralleling the highway) at the project site, where a dead-end stub of the road stops at the site itself. See Exhibit 1 for a location map applicable to the site and the immediate surrounding area.

Highway One in the project area is heavily used, and during peak traffic times operates at level C or

[91] Per IP Section 3.2 previously cited, and not cited again here.

[92] The next nearby Highway One off ramps are at the Fort Ord Main Gate (upcoast), and at Highway 218 (downcoast).

lower for most of the stretch of highway fronting the site, and at levels D and E for certain segments.[93] When traffic volumes associated with existing approved, but not yet constructed, projects in the vicinity are added in, Highway One traffic is even worse, reaching LOS level F for northbound evening peak trips approaching the site from the Monterey side and LOS level E for southbound morning peak trips towards the site (volumes of 4,513 and 4,053 respectively).[94] Similar traffic congestion is found at many of the interchanges in the near vicinity, including in relation to approved projects not yet constructed, where most of the intersections in the area are at LOS level C or worse, and several intersections rate an LOS of D, E, or F at peak traffic times.[95] In terms of the primary intersection in relation to the subject site, where the Fremont Boulevard off and on ramps to Highway One are located, this intersection currently operates at LOS D and F during peak times, and operates at level F when approved projects not yet constructed are added.[96]

Thus, based on peak time level of service calculations, Highway One and surface street intersections through which traffic directed to the project site must move are currently heavily impacted by too much traffic, much of it to unacceptable levels as determined by Caltrans.[97] In other words, the circulation system in the immediate project area, including Highway One, is inadequate. It is within this degraded traffic context that the proposed project must be understood.

3. Project Traffic Inconsistent with LCP

The proposed project is estimated to add 2,032 daily trips to the traffic mix, including 272 trips during the peak traffic times.[98] These trips would increase traffic on Highway One, including during peak use periods, and would likewise increase traffic along local streets and intersections in the area, including the primary Fremont Street/Highway One off and on ramp intersection. The Applicant indicates that such trips can be reduced by 15% by adopting transportation demand management (TDM) programs.[99]

The LCP requires that there be adequate circulation and that the project not contribute to traffic congestion. As described above, the existing circulation system is inadequate. In addition, the proposed project will add traffic to already congested Highway One, and to already congested local roads and intersections. Thus, as proposed, there is inadequate circulation capacity available at certain times to satisfy the proposed project needs. The project would contribute 85% of the projected traffic to this mix, thus creating additional traffic congestion, even if the Applicant's TDM programs were 100%

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93 Southbound AM and northbound PM trips (Draft EIR Addendum, p. 95). Per the Addendum, Highway LOS ranges from A (free flow speeds) to F (unacceptable delays) where level C is generally considered average traffic (i.e., average delays).

94 Id (p.95).

95 Id (p.94). Intersection LOS uses a similar rating methodology as highway LOS, ranging from little/no delay (A) to unacceptable (F).

96 Id (p.94).

97 As indicated in the Draft Addendum document, Caltrans indicates that a significant impact in Sand City would occur if the level of service D threshold is exceeded due to project traffic on a roadway segment.

98 Id (p.98-99).

99 See letter from Applicant to Commission staff dated October 17, 2008. Such programs are generally designed to reduce trips through promoting carpooling, vanpooling, transit, walking and bicycling, including in relation to use of the adjacent regional recreational trail.

successful. As such, the proposed project is inconsistent with LUP Policies 6.4.10 and 6.4.24, and IP Section 3.2.

Other than the TDM programs identified, the proposed project does not include mitigation to address traffic congestion and thus these LCP inconsistencies. The City's draft Addendum does recommend that the Applicant contribute an as yet to be determined fair share contribution to the Transportation Agency of Monterey County (TAMC) regional development impact fee program,[100] but such mitigation is not currently part of the project mitigation and has not yet been adopted by the City.[101]. In addition, the primary improvements cited by the Addendum to be implemented under the fee program to address traffic congestion involve widening Highway One south of the Fremont Boulevard interchange, and modifying the Fremont Boulevard on and off ramp intersection itself. The Addendum indicates that Caltrans has completed a study report for such improvements,[102] however, they do not have funds programmed, have not received coastal permits, and their future construction, if approved, is many years away.

Specifically, although intersection improvements east of the Highway could likely be accomplished in this already developed area to help ease traffic without undue resource impacts, it is not clear that the Highway widening identified could be so completed. In fact, the existing Highway cuts through historic dune areas, and is adjacent to existing dune resources, and it is not clear that widening could be achieved without impacting such resources. Likewise, it does not appear that such resource impacts could be found consistent with applicable LCP and Coastal Act[103] policies protecting these resources. Thus, even if it were part of the project and/or part of a final CEQA mitigation package, it is not clear that the impact fee traffic relief identified can even be achieved.

Further, as mentioned above, a fee program has been implemented recently by the Joint Powers Authority for the Monterey County Regional Development Impact Fee Agency, however the revenues raised by the fee program are not sufficient to pay for the highway improvement identified without new local funding sources. The TAMC Regional Development Impact Fee Joint Powers Agency Implementation Guidelines (updated March 2009) state that the 17 regionally-significant projects identified for the impact fee program (which includes the Rte 1 Sand City/Seaside widening) will cost a total of approximately $1.18 billion and that the development fees are expected to collect $328 million of this total. The Route 1 Sand City/Seaside widening proposal was among the transportation projects listed for funding under Monterey County's Measure Z sales tax increase that failed on the November 2008 ballot. In addition, it has been the Commission's experience that the time it takes to bring such

[100] And put in a signal at the California Avenue/Playa Avenue intersection.

[101] And, as indicated in the water supply findings previously, and the CEQA findings that follow, additional CEQA work will be necessary to address potential project impacts. As a result, the degree to which the Draft Addendum mitigation measures can be relied upon even if it were to be certified by the City is unclear.

[102] Id (p.100)

[103] Neither the City of Seaside nor the City of Monterey downcoast of Sand City have certified LCPs, and thus the standard of review for development in these jurisdictions is the Coastal Act.

major Highway One projects to fruition can be considerable, and thus it could be many years before any traffic relief associated with such improvements is realized. In this case, Caltrans indicates that the proposed project may be pursued sometime between 2017-2024, but this estimate does not account for the balance of funding, which is currently unavailable. Without the balance of funding, the projects could be in the future planning stages indefinitely. Given the natural resources concerns, the fact that the funding does not exist, the mechanism for raising the funds was defeated at the ballot box, and that participation in the fee program has not been required of the Applicant, there is no reasonable plan to mitigate traffic impacts and no reasonable expectation that traffic mitigation would be implemented.

Furthermore, given the existing traffic problems identified, it appears that congestion relief is necessary, whether the proposed project were to occur or not, and it is not clear that the traffic fixes proposed now to address existing congestion can or should be countenanced with respect to addressing traffic impacts for this specific project. In other words, as yet un-permitted traffic mitigation strategies (including multi-modal transportation alternatives, potential highway widenings, etc.) to address current problems cannot be used to offset project contributions on top of current problems.

In short, the project would generate significant traffic that would further tax an overburdened and currently recognized as inadequate circulation system, contributing to traffic congestion. The potential mitigation proposed by the City (major Highway widening and intersection improvements through a fair share contribution) to address this traffic impact is not part of the proposed project, is not part of a final CEQA mitigation package otherwise, is not permitted, raises significant LCP and Coastal Act issues, is many years away, is already proposed to address existing traffic deficiencies, and cannot adequately resolve the LCP inconsistencies identified above.

4. Parking

The LCP requires 830 parking spaces to be provided at the site, including 76 spaces for public coastal access parking.[104] The proposed project would provide 841 parking spaces, including 79 spaces identified for public coastal access parking. Thus, in terms of spaces provided, the project meets the LCP's minimum thresholds.[105] There is little to indicate that the project would have unusually large parking needs that haven't been addressed, and thus it meets the LCP's requirement that there be adequate parking.

5. Conclusion

[104] Local Coastal Program Implementation Plan parking requirements are based on the number of units identified by the Applicant. As noted previously, the Applicant has also described the project in terms of "modules", each of which appear to be the same size. Although unit counts to module counts are the same for the hotel component of the proposed project (i.e., there are 160 hotel units that are made up of 160 modules), the other 180 units are made up of 450 modules. Thus, to the extent the modules are intended to be used as separate units and/or are intended to eventually be broken up into separate units, the site would have a severe deficit of parking spaces. The Commission's parking evaluation, however, takes the Applicant's unit counts to be the number of separate units that are proposed, and the modules simply as a space allotment tool.

[105] As distinguished here in terms of parking needs and not the degree to which parking spaces result in other resource issues, particularly in terms of the dune landforms and public views which are discussed in the preceding public viewshed findings and not here.

The LCP requires that there be adequate circulation and that the project not contribute to traffic congestion. There is inadequate traffic capacity in the project area currently, and by extension inadequate traffic capacity to support the proposed project. The proposed project will add traffic to this circulation system, thus adding traffic congestion. Without adequate mitigation, the proposed project cannot be approved consistent with the LCP traffic policies. In addition, it is inappropriate to rely on potential future traffic congestion easing projects because there is no reasonable plan of mitigation with a likelihood of being implemented in place. Traffic capacity is a fundamental constraint that significantly directs what may or may not be approvable at the subject site, and conditions are not available nor appropriate that can adequately resolve the LCP inconsistency in this respect.

The Commission finds the proposed project inconsistent with the LCP's traffic and circulation policies and denies the CDP.

F. Public Access and Recreation

1. Applicable LCP Policies

A. LCP Policies

The LCP provides detailed direction with respect to protecting and providing for public recreational access. Applicable LCP LUP and IP policies include:

> ***LUP Policy 2.3.1.*** *Require all future shorefront developments to provide public access in the following manner: a) where access is shown on Figure 4, dedication of a vertical and/or blufftop access casement which meets the criteria established in Policy 2.3.4; b) where no access is shown on Figure 4, dedication of an access easement where it is found to be consistent with the criteria of Policy 2.3.4; or c) where no access is shown on Figure 4, and access dedication cannot be achieved consistent with Policy 2.3.4, payment of in-lieu fees for development and maintenance of other accessways.*
>
> ***LUP Policy 2.3.2.*** *Require dedication of lateral access easements for dry sand access along sandy beaches as part of all shorefront development.*
>
> ***LUP Policy 2.3.3.*** *Developed public accessways shall at the minimum provide trash receptacles, signs and trail improvements. Vista points shall be located and designed to take full advantage of views to and across the Bay, with provisions for vehicle turnouts where accessible from a public road, signs, and trash receptacles. Developed vista points should be accessible from a public road or accessway.*
>
> ***LUP Policy 2.3.4.*** *Work with landowners and public agencies to develop and manage vertical and lateral accessways in the general locations shown on Figure 4. Future developments shall implement safe accessways and improvements as determined by the City. Site specific locations shall be developed as part of future development proposals, and according to guidelines established by the City. The following criteria shall be used to determine the exact location of*

accessways. a) Accessways should be located at intervals commensurate with the level of public use. b) Accessways should be sited where the least number of improvements would be required to make it usable by the public, where support facilities exist or can be provided, where public safety hazards are minimal, and where resource conflicts can be avoided or mitigated. c) Vertical accessways to the shoreline should be located in areas where there is sufficient beach area, and should be distributed throughout an area to prevent crowding, parking congestion, and misuse of coastal resources. d) Accessways and trails should be designed and sited to: 1) minimize alterations of natural landforms, conform to existing contours, blend in with the visual character of the setting, and be consistent with the City's design standards; 2) prevent unwarranted hazards to land and public safety; 3) provide for privacy of adjoining residences and minimize conflicts with adjacent or nearby established uses, and be wide enough to permit placement of a trail and/or fence and a landscape buffer; 4) prevent misuse of sensitive coastal resource areas; and 5) be consistent with military security needs. e) Coastal access trails should not be located in areas of high erosion or fire hazard or in areas hazardous to public safety (including blufftop areas where bluff stability is a concern), unless the trail is designed and constructed so that it does not increase the hazard potential, or if it is required to correct abuse by existing access use.

LUP Policy 2.3.8. *New improved accessways shall not be made available for public use until public or private agencies responsible for managing the accessway have addressed the following management concerns: a) identification of the types of uses to be allowed; b) the need for any seasonal restrictions; c) the type of improvements needed, such as signs, gates, trash receptacles, boardwalks, restrooms; d) the proposed location, type and amount of parking facilities; and e) identification of the number of users that can be supported.*

LUP Policy 2.3.9. *Require new development to dedicate and improve accessways, which shall be opened to the public when such accessways are accepted by a public or private agency. …*

LUP Policy 2.3.10. *Ensure provision of adequate parking for designated pedestrian accessways. Require provision of public parking as part of developments at a rate of 10 percent above the project's total required parking. The means of providing public parking areas will be the responsibility of State and local governmental entities and private development proposals. The following will be pursued where feasible and consistent with the Plan: a) utilization of State of California Parks Department Properties to provide public parking and other public services and amenities, which provide quick and easy access to beach areas; b) abandonment, when appropriate, of some City paper streets, which then could be utilized for public parking strips, or traded for adjacent properties to form a more logically shaped parking lot; c) the City shall require approved development plans to include a provision for public parking on-site, or provide the property off-site, but in a convenient location to the beach areas, or be assessed an in-lieu pro-rata fee that the City could utilize for public parking and maintenance purposes. Parking areas should be located in geologically stable areas where they would not contribute to excessive erosion or slope failure. Parking areas shall be screened from public viewpoints*

through landscaping, berming or other appropriate measure consistent with the Design Standards required in Section 5.3 of this Plan.

LUP Policy 3.3.1. *Visitor-serving and public recreational uses are given priority west of State Highway One, as designated on the Land Use Plan Map in Section 6.0. Development of these uses shall be consistent with the protection of natural and visual resources.*

LUP Policy 3.3.2 *Encourage development of visitor serving facilities that provide services which meet a range of visitor needs. Provision of visitor facilities and services open to the general public, such as but not limited to state park facilities, dedication of sandy beach, and development of viewing areas and sheltered areas, is expected as part of each shorefront development project. Lower-cost visitor serving facilities such as campgrounds are encouraged.*

LUP Policy 3.3.3. *Permitted uses in areas designated as visitor-serving commercial include hotels, motels, accessory shops (including gift shops, travel agencies, beauty shops, et cetera), food service establishments, service stations, recreation retail shops and services (i.e., bike rentals), campgrounds, recreational vehicle parks and other recreational facilities operated as a business and open to the general public for a fee. Permitted uses in areas designated as public recreation include public parks, picnic areas, parking areas, sandy beaches and accessways which are publicly owned or over which access easements are to be required as a condition of development. In addition to areas designated public recreation on the Land Use Plan Map, public recreation also means public uses within development projects such as picnic areas, wind shelters, promenades or other indoor public recreational area uses where outdoor recreation may not be favorable; other support facilities for public recreational uses; and controlled public access and/or educational programs in areas of dune restoration programs.*

LUP Policy 3.3.8. *Require all visitor serving developments to provide adequate parking for the project users, commensurate with the proposed use. The developer will have to provide an adequate number of parking spaces to suit that development, including any public uses on-site. In addition, the developer will be required to provide additional public parking at a rate of 10 percent above the project's total required parking, consistent with Policy 2.3.10.*

LUP Policy 3.3.9. *Ensure provision of adequate public beach recreational areas for public use commensurate with future population growth and development, and compatible with existing development. Require the dedication of all sandy beach areas seaward of the toe of the dune, bluff or shoreline protection device as a condition of future development.*

LUP Policy 4.3.6.b. *Encourage the clustering of developments away from potentially hazardous areas and condition project permits based upon recommendations presented in the geologic report. An active recreation beach zone and public amenity zone shall be established between the mean high water line and the building envelope (refer ahead to Figures 12 and 13). Uses allowed in the active beach and public amenity zones are described in Policy 6.4.1 of this plan.*

LUP Policy 6.4.1. *… The described densities, both above and below, represent a maximum. As required by applicable policies of the LCP, permitted development intensities shall be limited to those which address constraints including, but not limited to: public access and recreation needs (including adequate public access and recreation facilities inland of the 50-year erosion setback line); …*

LUP Policy 6.4.1.g. *Allow public parks, picnic areas, parking areas, public vista points, sandy beaches and accessways which are publicly owned or over which access easements are to be required as a condition of development. In addition to areas designated public recreation in Figure 11, public recreation also means public uses within development projects such as picnic areas, wind shelters, promenades or other indoor public recreational areas; other support facilities for public recreational uses; and controlled public access and/or educational programs in areas of dune restoration programs.*

LUP Policy 6.4.3d. *(Circulation Designations, Public Access – Pedestrian/Bike Path) Plan and develop, provided that adequate funding is available, a public pedestrian/bike path along the existing and proposed Sand Dunes Drive right-of-way to connect to the regional bike path system in Fort Ord and Seaside/Monterey.*

IP Section 3.2, CZ-PR, Coastal Zone Public Recreation District. *Purpose. To provide areas for public use and enjoyment of the coast, and to enhance the recreational opportunities along Sand City's shoreline. Permitted uses, subject to Coastal Development Permit approval. (a) Public parks, picnic areas, parking areas, and sandy beaches; (b) Accessways which are publicly owned or over which access easements are to be required as a condition of development; (c) other support facilities for public recreational uses; (d) controlled public access and/or educational programs in areas of dune restoration programs. (e) all permitted and proposed uses shall be incorporated into a general parks plan or public works plan as part of an application for a coastal development permit.*

IP Section 3.2, Coastal Zone Overlay District, Access requirements. *(a) Offers to dedicate or grant public access easements shall be made in accordance with the provisions of the Local Coastal Land Use Plan. … (b) Access easements shall be provided in accordance with provisions of the Local Coastal Land Use Plan and the following: (1) Vertical beach accessway easements shall be a minimum width of ten (10) feet and shall extend from the nearest public roadway to the sandy beach frontage. … (2) Lateral beach accessway shall be provided by an easement with a minimum of 25 feet dry sandy beach or the entire sandy beach if the width of the beach is less than 25 feet. (3) Blufftop access easements shall run along the edge of the bluff, and be of a width adequate to provide safe access. ….*

B. Coastal Act Policies

As described earlier, because the proposed project is located seaward of the first through public road and the sea, the Coastal Act's access and recreation policies also apply to any proposed development at this

location. Applicable Coastal Act access and recreation policies include:

Section 30210. *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 private property owners, and natural resource areas from overuse.*

Section 30211. *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Section 30212(a). *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. …*

Section 30212.5. *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.*

Section 30213. *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. …*

Section 30214. *(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following: (1) Topographic and geologic site characteristics. (2) The capacity of the site to sustain use and at what level of intensity. (3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses. (4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.*

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.

(c) In carrying out the public access policies of this article, the commission and any other

responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

Section 30220. *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

Section 30221. *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

Section 30222. *The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.*

Section 30223. *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

Section 30240(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.*

Section 30253. *New development shall do all of the following: …(e) where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.*

2. Policy Summary

The LCP and Coastal Act public recreational access policies that apply to this site protect existing access, and require that development provide for new access, including requiring dedications for lateral and vertical accessways and related improvements, where such new access use is a LCP priority west of Highway One. Under IP Section 3.2 (Access Requirements), minimum dedication areas are 10 feet for vertical accessways from the public road to the shoreline, 25 feet for lateral accessways along the sandy shoreline beach, and an adequate width to provide safe access along blufftops. Such access improvements and areas must be identified and sited and designed in such a way as to meet the LCP's hazards provisions (including the requirement to be located inland of hazard areas) and visual provisions as well.[106] Vista points must be provided, as must public access parking at a rate of 10% above the development's basic parking requirements otherwise.

106 See hazard and visual findings for further detail in this respect.

In short, read together, the applicable policies require development projects to include public recreational access to and along the shoreline, including improvements to facilitate public recreational use, and including parking and vista point areas. Like the development itself, such public recreational access improvements must be sited and designed to be out of harm's way such that they continue to provide the intended access utility over time, and to avoid public viewshed impacts otherwise. As applied to this case, these requirements mean that in addition to providing dedicated access along the sandy shoreline beach, the proposed project must include dedicated public access improvements. These improvements must be dedicated, must be maintained over time, and include access trails that connect from Sand Dunes Drive to the shoreline beach, trails that connect Sand Dunes Drive to the regional bike path, vista point areas that provide views to and across the Monterey Bay, and parking commensurate with the intensity and density of the proposed project use. All such public access areas and related development/amenities must be sited and designed to blend seamlessly into the public viewshed and to adequately respond to coastal hazards, including through appropriate setbacks.

The LCP also encourages the provision of lower-cost visitor-serving facilities, such as campgrounds. Similarly, the Coastal Act public access policies also require the protection, encouragement, and where feasible, the provision of lower cost visitor and recreational facilities. (Section 30213). The Commission has interpreted this Coastal Act policy to either require that development of new overnight accommodations include lower cost units, or if the provision of such units within the proposed development is not feasible, that the applicant provide an in-lieu fee or in some other way contribute towards the protection of lower cost accommodations in the region. If the proposed project were to be approved, the Commission would need to analyze this issue and work with the Applicant to determine the most appropriate manner in which to implement LCP requirements and Section 30213 for the proposed development.

3. Existing Public Recreational Access Setting

The shoreline beach area at the project site is part of an unbroken stretch of sandy beach extending roughly 13 miles from the Salinas River to the Monterey Harbor that is used by the general public as a primary lateral accessway for this stretch of coast, including bridging the gap between Monterey State Beach and Seaside State beach downcoast and the beaches of the Fort Ord Dunes State Park unit immediately upcoast. Similarly, the Monterey Bay regional recreational trail provides hardscaped lateral access paralleling this beach lateral access but just inland of the site between it and Highway One. This recreational trail is very popular, and is heavily used by recreationalists throughout the region. Together, the recreational trail and the beach are major components for the California Coastal Trail. On the site's upcoast boundary is the State Park property. Although it only recently opened for public use, and the use patterns and amenities have not been completely developed, public trails extend from the recreational trail to the beach immediately upcoast of the project site. Immediately downcast is the MPRPD park site, which is less actively used.

In terms of the site itself, the public may have used it for access historically, including as a route to the ocean from inland roads, given its location adjacent to Sand Dunes Drive, but there is little in the file to

indicate one way or the other on this point. Existing fencing acts as a deterrent currently, but such fencing is not complete and is not such a barrier as to preclude use. In fact, it is clear that the tall dune feature on the site continues to be actively used by visitors, primarily as a landform feature on which to roll, slide, or slip down, and also as a natural billboard of sorts with people forming messages in the sand that can be read by Highway One motorists. Despite such ongoing use, there has not been any sort of formal public access study or evaluation specific to the site (like a prescriptive rights study), and public access rights associated with the property, to the extent any have accrued and exist, have not been established.

4. Proposed Access Improvements and Dedications

The proposed project includes substantial access improvements, including a 5' wide vertical accessway to the beach along the northern boundary of the project, and a lateral accessway along the beach. The lateral access area includes the entire portion of the site seaward of the 20-foot contour, which generally corresponds to the toe of the foredune/coastal bluff, and totals approximately 4.2 acres. Both the vertical and lateral access areas will be placed in a public access easement, totaling 5.7 acres. The project will also provide a public vista point in the northwestern corner of the site, in the same area that vertical access to the beach will be provided (please see Exhibit 4). A 70 space parking area for public parking is proposed in the north-east corner of the site. Finally, a Class II bike path (i.e., bike lane) will be provided along the proposed extension of Sand Dunes Drive necessary to serve the project until the entrance to the resort, and will transition into a Class III bike path (i.e., signed bike route) for the remainder of this roadway extension.

The Applicant has also submitted an Access, Signage, and Lighting plan that provides some details for the construction and management of the proposed accessways, such as the size of the proposed accessways, amenities provided for such accessways (i.e. trash receptacles), a signage and lighting plan and a plan for managing and operating the access areas

5. Consistency Analysis

Public Access Easement Areas

The proposed access program includes areas of the site to be set aside for both vertical and lateral public access and for public parking which generally correspond to the Public Recreation land use designation for the site illustrated by LUP Figure 11 (Exhibit 3). This is the principal area of the site designated by the LCP for recreational use by the general public, and the proposed dedications are generally consistent with the LCP requirement that both a lateral and a vertical accessway be dedicated on this property. (LUP Policies 2.3.1, and 2.3.2) However, at least three issues are not adequately addressed. First, the LCP requires that the lateral beach accessway be provided by an easement with a minimum of 25 feet of dry sandy beach or the entire sandy beach if the width of the beach is less than 25 feet. Although the proposed dedication below the 20 foot contour would probably accomplish this requirement, the ultimate access dedication should be specifically tailored to assure that the requirement of the LCP to provide adequate sandy beach access is met.

Second, although the general location of the lateral accessway is currently sufficient to provide lateral public access, subject to the qualification above, the Coastal Act and LCP require that such access be located where it will not be subject to high erosion rates or other hazards to public safety. (LUP Policy 2.3.4(1)(e), Coastal Act Section 30210). The Applicant has proposed in the Access plan to move various access improvements inland as erosion threatens them, including stairs to the beach, trail improvements, signage, etc. However, it is not clear that the Applicant has proposed that the dedicated access areas themselves will move inland as necessary to continue to provide the requisite access over time. The plan states that "the proposed public access easement areas included sufficient area inland of the 50-year erosion limit to allow for relocation of these facilities."[107] This suggests that easement areas themselves would not be moving if necessary. As discussed in the hazards finding, the proposed erosion setback is not adequate, and there would be considerable uncertainty as to whether there would remain adequate space for required public access over time given potential sea level rise and bluff erosion. If the project were to be approved, it would need to be conditioned to ensure continual public lateral access, in all aspects, despite the effects of erosion and sea level rise.

Third, the Applicant has proposed a five foot wide vertical accessway along the northern edge of the property. Although this is not the precise location in which the required vertical access is shown in LUP Figure 4, Figure 4 acknowledges that the mapped "floating vertical access" areas are generalized locations only. In addition, LUP Policy 2.3.4 requires accessways to be developed consistent with certain guidelines, including that they minimize alteration of natural landforms, conform to existing contours and blend in with the visual character of the setting. (LUP Policy 2.3.4(d)(1)). The proposed vertical accessway would be primarily located in one of the few areas of the site that is not proposed to be graded extensively, and will traverse the edge of the site in the vicinity of the protected buckwheat habitat. Despite the fact that the vertical accessway is not in the precise location identified in LUP Figure 4, its location can still be found to be consistent with the LCP, as the location on Figure 4 is a generalized location only, and the accessway has been sited to comply with other LCP requirements. If the project were to be approved, it would be important that the proposed habitat protection measures in the Access plan be specifically required for access in this area.

There is one specific problem with the proposed vertical access. The LCP requires that vertical beach accessway easements be a minimum width of ten (10) feet and shall extend from the nearest public roadway to the sandy beach frontage." In addition, the Commission typically requires a minimum width of 10 feet for public access dedications unless there is a compelling reason not too, such as a physical barrier that makes it infeasible to do so. As proposed, the vertical access would only be 5 feet wide. Although the ultimate physical width of the vertical trail may be appropriately reduced to minimize habitat impacts, the proposed vertical easement area must be at least 10 feet wide. The trail itself should probably be at least 6-8 feet wide.

The Applicant's management plan for these access easements includes a proposal to limit public access to them and to potentially close the accessways in order to protect sensitive natural resources, such as

[107] Public Access Plan, p. 7-5.

the snowy plover. Both the Coastal Act and the LCP acknowledge that public access must be maximized, but consistent with the protection of natural resources. (Coastal Act Section 30214(a)(3), LUP Policy 2.3.4(1)(4)). If the Commission were to approve a CDP for this project, it would need to be conditioned to require Executive Director approval of a final access management plan to ensure that the limitations on public access were the minimum necessary to protect natural resources.

Public Parking

Parking to serve public access and recreation will be located in the northeast corner of the site, adjacent to the proposed vertical access trail. The LCP requires that the project provide public parking at a rate of 10% more than the total required parking for the site. According to the applicant's materials, the project must provide 754 parking spaces for the development. Thus, the development must provide at least 75 public parking spaces. The Applicant's proposal to provide 70 public parking spaces in the northeast corner of the development almost provides the required 75 spaces. It may also be that some of the nine spaces proposed to be located at the entry are meant to be public access parking Were the project to be approved, this would need to be clearly addressed. In addition, as discussed above, this parking area may not always be available for public use. As described in the project's Habitat Protection Plan, parking lot access to the public parking spaces would be controlled by an electronic gate and would be closed to the public at sunset. Additional seasonal restrictions may be contemplated to protect special status species during critical period of their life cycles. Thus, for any approval of this project, the Applicant must provide additional details regarding when the parking lot would be open, what criteria it would use before determining when closure to protect species would be appropriate, etc., and the Commission would need to evaluate such additional information. Finally, as discussed in the visual resource finding, the current project design locates this large parking lot in an important public viewshed. This would need to be addressed as well in any redesigned project.

6. Conclusion

The proposed project includes numerous public access amenities, as required by the Coastal Act and LCP. Specifically, the Applicant has proposed dedication of both lateral and vertical public accessways, and the project provides nearly sufficient parking to meet LCP requirements. These public accessways will need to be managed to ensure that public access is maximized, while still protecting the natural resources on the site. The Applicant's proposal is deficient in certain details, and does not include sufficient information for the Commission to determine the adequacy of the proposed access, signage and management plan for actual implementation. However, if the application were approved, it could be conditioned to require submission of such final plan for Executive Director review and approval, subject to various performance standards to address the LCP and Coastal Act requirements.. In addition, the proposed plan does not provide adequate assurances that the dedicated lateral accessway would be moved inland to address public safety concerns as the mean high tideline moves inland due to erosion and sea level rise. Finally, the Applicant is not proposing on-site lower cost overnight accommodations, a plan to provide such accommodations in the vicinity of the project, or an in-lieu fee to facilitate the provision of lower cost accommodations in the area. While this failure to address lower cost

accommodations means that the proposed project is inconsistent with Coastal Act Section 30213, the Commission could address this issue through the addition of a special condition. In sum, as proposed, the project is not entirely consistent with the LCP and Coastal Act public access and recreation policies, but these deficiencies likely could be addressed through the imposition of special conditions, so failure to comply with the applicable public access and recreation policies is not a sufficient basis on which to deny the proposed project.

G. California Environmental Quality Act (CEQA)

Public Resources Code (CEQA) Section 21080(b)(5) and Sections 15270(a) and 15042 (CEQA Guidelines) of Title 14 of the California Code of Regulations (14 CCR) state in applicable part:

> ***CEQA Guidelines (14 CCR) Section 15042. Authority to Disapprove Projects.*** *[Relevant Portion.] A public agency may disapprove a project if necessary in order to avoid one or more significant effects on the environment that would occur if the project were approved as proposed.*
>
> ***Public Resources Code (CEQA) Section 21080(b)(5). Division Application and Nonapplication.*** *…(b) This division does not apply to any of the following activities: …(5) Projects which a public agency rejects or disapproves.*
>
> ***CEQA Guidelines (14 CCR) Section 15270(a). Projects Which are Disapproved.*** *(a) CEQA does not apply to projects which a public agency rejects or disapproves.*

Section 13096 (14 CCR) requires that a specific finding be made in conjunction with coastal development permit applications about the consistency of the application with any applicable requirements of CEQA.

The City of Sand City, acting as the lead agency for this project with respect to CEQA, certified a Final EIR (FEIR) in December 1998. The FEIR was in relation to a 597-unit mixed-use resort and residential project. The FEIR described the existing environmental conditions in and around the site, and also identified potential environmental impacts to a series of coastal resources, including dune habitats, visual resources, sensitive plant and animal species, traffic, water quality, near-shore coastal processes and hazard avoidance, public services, and access and recreation. The City was sued by the Sierra Club regarding the adequacy of its CEQA evaluation, but the action was later dismissed after the City project approval was appealed to the Coastal Commission. In August 2008, the Applicant prepared a Draft Addendum to the FEIR. The Draft Addendum was intended to address the revised proposed project currently before the Commission, and addressed roughly the same issues as were addressed in the FEIR. The Draft Addendum indicated that most (but not all) of the environmental impacts under CEQA have been reduced for the currently proposed project in relation to the previously proposed project Various versions of the Addendum were provided by the Applicant to the City and MPWMD and, on January 20, 2009, the City considered the Addendum and voted to reserve final CEQA review of the project until later.

On February 26, 2009, and in its denial of the water permit for the proposed project, MPWMD indicated that the Addendum was insufficient under CEQA and that if the Applicant were to reapply for the water permit, a Subsequent EIR would be required for that purpose.[108]

This staff report has discussed the relevant coastal resource issues raised by this proposal. All public comments received to date have been addressed in the findings above. All above Coastal Act findings are incorporated herein in their entirety by reference. As detailed in the findings above, the proposed project would have significant adverse effects on the environment, as that term is understood in a CEQA context. The proposed project would be inconsistent with the water supply, hazards, visual resource, natural resource, traffic, and public recreational access provisions of Sand City's certified LCP as well as the Coastal Act's public access and recreation provisions.

Pursuant to CEQA Guidelines (14 CCR) Section 15042 "a public agency may disapprove a project if necessary in order to avoid one or more significant effects on the environment that would occur if the project were approved as proposed." Section 21080(b)(5) of CEQA, as implemented by section 15270 of the CEQA Guidelines, provides that CEQA does not apply to projects which a public agency rejects or disapproves. The Commission finds that denial, for the reasons stated in these findings, is necessary to avoid the significant effects on coastal resources that would occur if the project were approved as proposed. Accordingly, the Commission's denial of this project represents an action to which CEQA, and all requirements contained therein that might otherwise apply to regulatory actions by the Commission, do not apply.

[108] A Subsequent EIR is different than an addendum to an EIR, including inasmuch as a subsequent EIR requires that it be circulated for comments, and comments responded to, before it can be certified whereas an addendum does not require such distribution for comments.