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California Coastal Commission
45 Fremont Street, Suite 2000
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Attention: project manager Mike Watson, California Coastal Commission, mwatson@coastal.ca.gov

SUBJECT: Scientific/technical peer review of multiple environmental documents for Monterey Bay Shores Ecoresort, Sand City, California

DATE: April 3, 2014
Via e-mail

These comments are submitted on behalf of the Sierra Club and Center for Biological Diversity regarding Application A-3-SNC-98-114 (Monterey Bay Shores Eco-resort, SNG) and the associated Coastal Commission staff report dated March 21, 2014. The scope of my comments covers the staff report, project Habitat Protection Plan (HPP 2013, 2008), and documents incorporated or cited by them. My previous comments on this project (in Coastal Commission administrative record; memorandum to Michael Watson February 24, 2009) are incorporated by reference. The focus of my current comments are on the adequacy of the proposed Coastal Development Permit (CDP) special conditions and the HPP to identify, assess, and mitigate potentially significant impacts to important coastal resources, including special-status species. I am summarizing my main conclusions here, and explaining them at greater length below. My qualifications to provide expert comments, and the scope of documents reviewed in connection with these comments, are provided as attachments to this letter.

Summary of main conclusions

1. Dune restoration feasibility as proposed is unacceptably low and likely to result in chronic restoration failure despite remediation measures because of fundamental flaws. Dune restoration methods and designs proposed at locations shown in the HPP are fundamentally incompatible with local natural coastal processes over a time-scale of decades, and they are likely to fail long-term performance criteria as designed, even with proposed CDP special conditions.

2. Storm runoff pond percolation and saturation of dune bluffs: interaction with storm wave erosion impacts. Potentially significant erosion impacts may occur as a result interactions among hydrological, geomorphic, and ecological processes directly affected by proposed stormwater runoff detention features ("percolation ponds",

"percolation pits" landward of dune bluffs) and the dune restoration grading. These potential interactions appear to have been omitted in the assessments of CDP, HPP, and coastal engineering studies of shoreline and dune bluff retreat.

3. Dune bluff "edge" retreat model and monitoring assumptions underestimate significant additional erosion due to (omitted) natural dune processes inherent in (proposed) restored native dune vegetation. Linear dune bluffs retreat processes assumed by the CDP special conditions for monitoring will predictably disintegrate naturally into blowouts and mobile dune landforms under the influence of restored native dune vegetation and shoreline retreat following storm erosion events. Erosion monitoring and criteria are based on an incomplete and inapplicable conceptual model of dune bluff crest erosion pattern, process, and pace that neglects blowouts.

4. Federally listed Monterey spineflower *(Chorizanthe pungens* var. *pungens)* **re-establishment (mitigation) as proposed in the HPP and conditioned by the CDP is likely to fail**. Monterey spineflower re-establishment plan assumptions are scientifically unsound, and restoration designs proposed to support it are deficient. Similar Monterey spineflower seeding projects by the same consultant proposed for this project have recently failed performance criteria at Point Piños dune restoration sites without adequate explanation or correction.

5. Federally listed Western snowy plover *(Charadrius alexandrinus nivosus)* **impact assessments and mitigation measures are fundamentally inadequate, and are likely to result in significant long-term impacts**. The HPP fails to assess the most significant potential impacts of the project, which are indirect, wide-ranging (beyond project site) and long-term effects of increased predation pressure from crows, ravens or gulls influenced by resort development and increased visitor use of beach habitats, rather than short-term and construction-related impacts. The CDP improperly presumes and defers subsequent federal (USFWS) incidental "take" authorization and consultation (through Habitat Conservation Plan or, less likely, Section 7 formal consultation) after CDP authorization, instead of fully integrating terms of authorization to be compatible with all aspects of the CDP special conditions.

Evaluation and Discussion

1. Dune restoration infeasibility with proposed methods and locations. Dune restoration feasibility as proposed in the HPP is unacceptably low. The plan's scientific background in coastal ecology and physical processes appears to be superficial and seriously deficient in most essential planning aspects related to the physical dune environment, particularly dynamic dune geomorphic processes related to vegetation types proposed. The HPP fails to provide even minimal use of the scientific literature in dune ecology, restoration, management to justify its unsound designs. "Restoration" designs for dunes and vegetation appear to be arbitrary static landscape planting designs rather than actual coastal dune restoration. The HPP even calls its dune revegetation plan a "Landscape Plan", which is basically different from a revegetation plan for dynamic coastal dune vegetation. Design criteria for vegetation type, percent cover, and topography are not consistent with long-term objectives or physical coastal processes. The HPP as currently proposed is likely to result in chronic, long-term restoration failure despite remediation measures because of fundamental flaws in its premises and designs. Dune

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restoration methods and designs proposed at locations shown in the HPP figures are fundamentally incompatible with local natural coastal processes (episodic shoreline and dune bluff retreat, natural dune blowouts) over a time-scale of decades. They are likely to fail long-term performance criteria as designed, even with proposed CDP special conditions.

One of the principal reasons dune restoration failure is likely because neither the CDP nor HPP (nor engineering analyses) include inherent and predictable physical dune processes (natural blowout and dune migration) associated with native vegetation, rather than iceplant mats that are proposed to be eliminated or reduced to very minor amounts. The HPP treats dune restoration like a static landscaping plan in which plantings are installed and grown in place, without regard to foreseeable long-term shoreline retreat, dune bluff retreat, and related dune blowout and migration processes in sparsely vegetated, native plant-dominated dunes proposed. This approach is fundamentally incompatible with dune restoration based on native dune vegetation and natural processes near the crests of dune bluffs in Monterey Bay: restoration of vegetation, landforms, and processes in this environment is inherently dynamic, forming a patchwork of blowouts with turnover (destruction and re-formation) of stable and mobile dune vegetation patches, including erosion (blowouts) and migrating dune lobes. The "Landscape Plan" restoration methods are unlikely to meet proposed performance criteria even with proposed (vague, deferred) adaptive management.

Dune stabilization methods proposed in the HPP and conditioned in the proposed CDP are *short-term* measures that cannot cope with, and basically conflict with, realization of goals for long-term natural dune restoration. Structural dune stabilization measures proposed in the HPP (retaining walls) are infeasible and conflict fundamentally with predicted dune bluff/shoreline retreat and associated dune blowout processes. They therefore conflict with requirements of the CDP special conditions regarding planned retreat of the dune bluff without structural stabilization of the dune bluff or shoreline. The storm runoff detention/percolation ponds (see next) are also likely to accelerate destabilization of dune bluffs during extreme storm events, and conflict with restoration criteria for (incorrectly named) "back dunes" of HPP management area 3 landward of the existing bluff edge, which are intended to support special-status species.

The fundamental reasons for infeasibility of the dune restoration plan as currently proposed are not corrected by setting programmatic CDP performance criteria or goals that are not supported by the current HPP science and restoration designs. The Commission, and also California State Parks, have practical and effective precedents for establishing scientifically sound goals, objectives, conceptual models (in dune hydrology, geomorphology, ecology) and restoration and management design principles, for dune restoration projects. Scientific review panels (or technical advisory working groups) overseeing highly qualified multidisciplinary restoration teams have been used to develop restoration guidance for Bodega Dunes (the largest dune restoration project recently proposed in California) and for Lawson's Landing (another major dune complex undergoing revised restoration and management planning).

2. Storm runoff pond percolation and saturation of dune bluffs: interaction with storm wave erosion impacts. Potentially significant erosion impacts may occur as a result interactions among hydrological, geomorphic, and ecological processes directly affected by proposed stormwater runoff detention features ("percolation ponds", "percolation pits" landward of dune bluffs) and the dune "restoration" grading. These potential interactions appear to have been omitted in the CDP, HPP, and coastal engineering studies of shoreline and dune bluff retreat.

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The potential effects of storm peak saturation of dune bluff and beach sand below graded dune sand basins or temporary ponds (elevated groundwater seeps affected by "percolation" discharges) and storm wave erosion have not been addressed. Increased erosion susceptibility of wet or saturated dune bluffs may to occur during concurrent extreme storm wave runup events and 100-year storm precipitation events, when runoff generated by the developed areas is concentrated in dune "percolation ponds" behind the retreating dune bluff. Wet or saturated dune bluffs affected by percolation may result in unmitigated intensified erosion of western snowy plover beach habitat, and Monterey spineflower habitat in "restored" dunes as sea level rises. This impact is not assessed or mitigated. The vague and inconsistent "percolation pond" storm runoff designs have been conditioned by the CDP for water quality only, not indirect effects on shoreline and dune bluff erosion processes. The CDP should require analysis of dune bluff stability during peak stormwater discharges and percolation pond seepage rates, especially during storm events in which wave erosion undermines temporarily saturated dune bluffs due to artificial percolation pond use.

In addition, the characterization of the proposed percolation ponds as "wetlands" in the HPP and Landscape Plan is erroneous and misleading. The duration of sand saturation is limited to brief storm events and is predicated on rapid infiltration (percolation) of stormwater. There is no restrictive layer or relationship to stable dune groundwater elevations, which normally lie slightly above mean sea level (or below, if groundwater extraction occurs). Dune wetlands (slacks or ponds) occur where depressions approach or expose the elevations of capillary fringe of the long-term water table. The do not occur at high dune elevations in the absence of a restrictive layer of sediment like clay hardpans from slope wash (alluvium) derived from adjacent non-dune uplands. These conditions do not exist at or near the project site and thus are not plausible "restoration" features, or even possible. The photographs in the landscape plan representing "dune wetlands" are from lowlands near sea level, and as such are profoundly misleading and unrelated to the geomorphology of the project site. The duration of sand saturation caused by temporary infiltration of stormwater would not be sufficient to support even marginal dune wetland conditions. Even chronic discharges of irrigation ditch drainage water into high dune depressions near the Salinas River artichoke fields do not maintain perched dune wetlands; they merely elevate nutrient and moisture levels and support only mesic non-wetland dune vegetation. Thus, the HPP's claims of providing "wetlands" habitat is scientifically unsupportable and misleading.

3. Dune bluff "edge" retreat model and monitoring assumptions underestimate significant additional erosion due to (omitted) natural dune processes inherent in (proposed) restored native dune vegetation. Dune bluff "edges" will predictably disintegrate naturally into blowouts and mobile dune landforms under the influence of restored native dune vegetation and shoreline retreat following storm erosion events. In contrast, the CDP special conditions for monitoring assume dune bluff geomorphic forms that correspond with the CCC regulatory definition of bluff "edge", and which match the typical condition of iceplant mat-influenced dune bluffs with relatively (artificially) high resistance to wind erosion. Non-native iceplant mats, however, are proposed for elimination or reduction to trivial abundance at the project site, so it is unreasonable to expect the "edge" erosion forms and processes that they facilitate to persist into the permit monitoring period. In contrast, native dune scrub or foredune vegetation (proposed for restoration at relatively low natural cover of 20% in the HPP) facilitate natural irregular dune blowout and migration landforms and processes at dune crests. This condition should instead be expected to facilitate relatively rapid formation of naturally dynamic (unstable) and non-linear (no edge)

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topography and slopes, similar to those in comparable segments of Monterey Bay dune bluffs (lacking sharp crests; complex, convex blowout dune forms) near Marina.

Therefore, monitoring of linear bluff edge retreat (recession of well-defined break in slope) is not compatible with natural coastal dune morphology and processes under native vegetation cover. More important than the inconsistency with monitoring method assumptions is the practical effect of increased natural dune blowout mobility at the "restored" dune bluff crest and plateau areas (management areas 1 and 2 in the HPP). Rates of dune bluff "crest" (blowouts, lobate or shadow dunes) erosion processes under native dune vegetation cover will likely significantly exceed those of retreating linear coastal dune bluff crests influenced (partly stabilized) under extensive iceplant mats, where the main driver of retreat is limited to wave erosion of the bluff toe, oversteepening, and slope adjustment to angle of repose by slumping, avalanche, and dry sand grain-flow. Superficial dune stabilization methods discussed in the HPP (straw-punch, fabric, etc.) are short-term, temporary remedial actions, and applying them on a chronic, long-term basis would fundamentally conflict with vegetation performance criteria for natural semi-open dune vegetation cover proposed.

I previously commented (2009) on the omission of natural dune blowout processes in the analysis of coastal dune bluff retreat, citing the applicant's consultant estimates of onshore sand transport. My comments appear to have been disregarded by both CCC and the project consultants. The 1989 Moffat and Nichols erosion study expressly indicated bluff erosion processes independent of waves and shoreline position (p. A-7), and estimated potential net onshore eolian sand transport rates ranging from approximately *3,000 to 25,000 cubic yards per year in Sand City* (p. B-17). All analysis of bluff "edge" retreat, as well as dune restoration results, however, are linked only to position of the bluff "edge" rather than a predictable (no definable edge; slope, complex blowout dune topography) zone of active blowout erosion and eolian sand deposition that occurs well landward of it.

In addition, the assessment of beach and bluff erosion rates in the CDP (including coastal engineering analyses of shoreline change for the project) appear to underestimate the role of episodic intense erosion due to location of unstable, shifting rip current embayments (beach mega-cusp troughs), which are a characteristic feature of Monterey Bay breach erosion patterns, processes, and variability of erosion rates (Thornton *et al.* 2007, ESA 2014). This process was considered to a limited degree by the CCC staff geologist memo of 2014 included in the Staff Report, but was not adequately evaluated specifically in context of cumulative impacts to western snowy plover beach habitat over time (beach narrowing during rip embayment episodes coinciding with El Nino storm erosion events, and cumulative impacts of sand export and sea level rise). See discussion of western snowy plover impacts, below.

4. Federally listed Monterey spineflower *(Chorizanthe pungens* var. *pungens)* **re-establishment (mitigation) as proposed in the HPP and conditioned by the CDP is likely to fail.** Monterey spineflower re-establishment plan's biological assumptions are scientifically unsound, and restoration designs proposed to support it are unsound and extremely incomplete. The ecological requirements of this species are incorrectly represented in the "Landscape Plan". The methods, locations, and associated plant species proposed in the HPP to be associated with its re-establishment are inappropriate and likely to result in population failure in both the short-term and the long-term, regardless of proposed criteria. The HPP omits essential restoration design information on the environment, vegetation structure and dynamics (initial plant species

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composition, successional processes, turnover, patch dynamics) that are expected to support viable populations of Monterey spineflower. The proposed vague seed salvage methods have no scientific basis and are inadequate. The seed sowing densities proposed (only 1000 "propagules"/3.4 acres) are not even reasonable first approximations of seed density required to re-initiate a population of an endangered dune annual, or mitigate for project impacts (destruction of habitat, populations and seed banks). The HPP cites no reference conditions supporting this species, or past successful projects or their methods and environmental settings. My 2009 technical comments on the HPP, aimed at providing critical scientific review supporting improved mitigation, appear to have been disregarded.

The likelihood of failure to re-establish Monterey spineflower populations at the project site is further indicated by a problematic precedent of failure to meet performance criteria for the re-establishment of Monterey spineflower at the City of Pacific Grove Golf Course at Point Piños dune restoration (mitigation) project. This long-term restoration project including Monterey spineflower re-establishment criteria was managed by the same dune restoration consultant proposing landscape and revegetation plans in the HPP (Rana Creek 2012; see scope of documents reviewed, listed above). This project failed to meet minimal performance criteria for Monterey spineflower, despite repeated seeding. By 2012, it still failed to meet performance criteria at all restoration units: one unit (Section 1) it became locally extinct where criteria required at least 586 plants; in other units, it reached local population sizes of only 26 and 109 plants where a minimum of 450 and 1474 were set by criteria. One pre-existing population of 5 plants present in 2005 became extirpated. In each case, the number of spineflower plants recruited from sowing seeds was significantly less than the number of seeds sown, making the project a population sink (net loss of reproductive capacity) for the species. There were only speculative (guesswork) reasons for the population decline and failure to establish. These results for CDP-permitted dune restoration with criteria for Monterey spineflower are seriously problematic for the current HPP proposal and CDP for Monterey Bay Shores Ecoresort.

Overall, the HPP fails to provide any scientific basis or evidence to justify the feasibility of the methods and designs proposed for re-establishment of Monterey spineflower. In my professional judgment, the Commission has no reasonable basis for concluding that the current HPP or CDP conditions (including their performance criteria), are adequate to ensure a likelihood of even minimal success at mitigating impacts to this endangered plant species, consistent with ESHA requirements (even if LCP precludes ESHA at this location). Furthermore, the responsible federal agency (USFWS), which prepared the recovery plan for this species, has apparently not been consulted on the feasibility of the re-establishment proposal.

5. **Western snowy plover impact assessments and mitigation measures.** Western snowy plover impact assessments and mitigation measures are fundamentally inadequate, and are likely to result in significant long-term impacts. Substantively, the HPP fails to assess the most significant potential impacts of the project, which are indirect and long-term, rather than short-term and construction-related. Significant indirect impacts to western snowy plover breeding outside the project area are not assessed, even though the project proposes to increase visitor access to the beach ("vertical access" down steep bluffs causing harassment that limits essential foraging behavior), food and behavioral attractant cues to major avian predators of western snowy plover chicks and eggs (crows, gulls, ravens) both within and beyond the project site. The HPP relies on scientifically invalid short-term or anachronistic comparisons of "preferred" western snowy plover habitat elsewhere in Monterey Bay (current sea level) to understate the importance of

plover habitat on beaches on or near the project site. The HPP and CDP fail to apply the best available scientific evidence (and required federal regulatory processes) from the western snowy plover recovery plan (USFWS 2007) and 2012 revised Critical Habitat designation towards impact assessment and mitigation to avoiding or minimizing "take". This indicates that the CDP special conditions fail to reduce long-term indirect project impacts to less-than-significant levels with respect to CEQA.

Procedurally, The CDP improperly presumes and defers subsequent federal (USFWS) incidental "take" authorization and consultation (through Habitat Conservation Plan or, less likely, Section 7 formal consultation) after CDP authorization, instead of fully integrating terms of authorization to be compatible with all aspects of the CDP special conditions. Authorization of the project in advance of HCP or other incidental take authorization presumes that HCP structure would conform to basic CDP and HPP conditions, which is invalid and unjustified.

In addition, the project's significant net removal of sand (385,000 cy) from the local bluff-beach sediment budget has additional long-term potential effects on western snowy plover habitat quality (beach backshore width, nesting and high tide foraging space) that are not assessed or mitigated. The HPP and CDP allow for possible off-site disposal of 385,000 cy of sand in shoreline segment that has suffered from long-term dune mining. The long-term impacts of dune mining on the Monterey Bay beach erosion rates are significant and strongly supported by peer-reviewed scientific research (Thornton *et al*. 2006). No mitigation for western snowy plover habitat based on local beach nourishment to buffer or expand potential breeding habitat during periods of beach narrowing has been evaluated as mitigation. This is a significant deficiency and omission.

The authorization of this project under current HPP proposals and CDP special conditions would not be consistent with ESHA requirements because: (a) assessment and mitigation of indirect and cumulative long-term impacts of the project on western snowy plovers is woefully inadequate and incomplete; (b) the proposal lacks both incidental take authorization and even formal review by USFWS, the agency with lead expertise and jurisdiction over recovery and authorization of incidental take for this species.

6. Special-status invertebrate impacts are potentially significant and are not assessed or mitigated adequately by either CDP conditions or HPP proposals. The Monterey dunes scorpion (*Pauroctonus maritimus*), Globose dune beetle (*Coelus globosus*), and sandy beach dune beetle (*Cicendela hirtocollis gravida*) are difficult to detect except by qualified experts, and only in certain seasons during relatively favorable (higher population density) years. Proposed deferred mitigation by short-term pre-construction project site surveys (single-year sampling biased to false negative results) is inappropriate and inadequate to protect special-status invertebrates that occur in patchy, widely distributed fluctuating populations in unstable dune habitats. Perfunctory, short-term or single-year pre-construction surveys are biased towards false negative results. The assessment of project impacts to these species requires at least minimal evidence-based assessment of the larger population structure and environmental setting in the vicinity of the project area. Surveys limited to the project site or construction footprint in one year will not provide meaningful regarding population distribution during construction, or reliable information about potential re-colonization after construction disturbance.

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Thank you for considering my comments. Please contact me if you have any questions.

Respectfully submitted,

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Copies furnished:
Center for Biological Diversity
Sierra Club

ATTACHMENT 1

Summary of qualifications to provide expert comments on coastal dune ecology, restoration, management, and related coastal geomorphology – Peter R. Baye

My qualifications for expert comments on environmental planning, regulation, and assessment of California coastal dunes, including special-status species, include:

- Academic and applied science: My Ph.D. dissertation on coastal dune ecology focused on interactions between vegetation and physical coastal environmental processes. I have studied coastal dunes for 40 years, over 20 years focused on applied ecology of the California coast.

- USFWS endangered dune species recovery planning: contributing author for sections of the Recovery Plan for Seven Coastal Plants and Myrtle's Silverspot Butterfly (1998) prepared by the U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office. My contributions included technical background information on California coastal dune systems, and specific recovery recommendations for federally listed Central Coast dune plants, including Monterey spineflower (*Chorizanthe pungens* ssp. *pungens*). I was the lead author for the Service's Recovery Plan for Coastal Plants of the Northern San Francisco Peninsula (2002), which featured coastal dune species. I provided technical information cited in the Recovery Plan for Western Snowy Plover, Pacific Population (2007).
- Scientific peer review of California coastal dune restoration designs. My principal professional experience in California has been with conservation planning for coastal habitats and ecosystems. I currently serve as a scientific peer reviewer of the Lawson's Landing dune restoration (Marin County) planning process under supervision of the Coastal Commission, and I have served on the scientific review panel of the Bodega Dunes Restoration Project, managed jointly California State Parks/University of California Bodega Marine Laboratory (currently the largest coastal dune restoration project in California).

- California dune restoration consulting: I have conducted independent field investigations of coastal dune and wetland systems in central and northern California, including geomorphologic, hydrologic, and ecological conditions throughout the 1990s to the present. I am also a technical advisor/subconsultant for multiple federal dune restoration projects managed by the National Parks Service, Presidio Trust, and Point Reyes National Seashore in the San Francisco Bay area (Muir Beach, Presidio, Abbott's Lagoon). I was co-author of a recent habitat management plans for California State Parks dunes at Laguna Creek Lagoon (Santa Cruz) and Pilarcitos Creek (San

Mateo), including western snowy plover habitat. In addition, I serve as an interdisciplinary ecology/geomorphology consultant to ESA Hydrology (San Francisco; ESA-PWA) for beach and dune sediment management for the U.S. Army Corps of Engineers San Francisco Littoral Cell Coastal Sediment Management Plan, and SPUR's Ocean Beach Management Plan.

- Endangered species and NEPA/CEQA expertise: I conducted Section 7 Endangered Species Act consultations and managed joint NEPA/CEQA environmental impact report/statements as senior scientific and regulatory staff of the U.S. Army Corps of Engineers, San Francisco District. I prepared and technically advised biological opinions for the U.S. Fish and Wildlife Service as senior biological staff.

ATTACHMENT 2: **Scope of document review**

I have reviewed the following documents specifically relevant to the project and its potential impacts:

California Coastal Commission. 2014. Staff report and recommendation for CDP APPLICATION HEARING Application Number: A-3-SNC-98-114 (Monterey Bay Shores Resort) Applicant: Security National Guaranty, Inc. (SNG), Project Location: Undeveloped dune area seaward of Highway One between Fort Ord Dunes State Park and the Monterey Peninsula Regional Park District's Eolian Dunes Preserve in the City of Sand City, Monterey County. W10a - Th6a - F6a. Second Commission action: 12/11/2009. Staff report prepared by: M. Watson. Staff report approved by: D. Carl. Staff report date: 03/21/2014.

ESA-PWA. 2014. Analysis of Historic and Future Coastal Erosion with Sea Level Rise, Monterey Peninsula Water Supply Project (205335.01). Technical memorandum prepared by Elena Vandebroek, David Revell and Doug George (ESA-PWA) for Michael Burns and Eric Zigas. March 19, 2014

EMC Planning Group, Inc. 2013. Habitat protection plan, Monterey Bay Shores Eco-Resort, Sand City, California. Prepared for Security National Guaranty (SNG). October 2008.

Rana Creek Habitat Restoration. 2012 Annual Dune Restoration and Monitoring Report City of Pacific Grove Golf Course at Point Piños Pacific Grove, California Prepared for: City of Pacific Grove Mr. Dan Gho 300 Forest Avenue, Pacific Grove, California.
http://www.ci.pg.ca.us/Modules/ShowDocument.aspx?documentid=9283

U.S. Fish and Wildlife Service. 2012. 50 CFR Part 17 Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Pacific Coast Population of the Western Snowy Plover; Final Rule. Federal Register Vol. 77, No. 118, 36728 Tuesday, June 19, 2012.

EMC Planning Group, Inc. 2008. Habitat protection plan, Monterey Bay Shores Eco-Resort, Sand City, California. Prepared for Security National Guaranty (SNG). October 2008.

EMC Planning Group, Inc. 2008. Monterey Bay Shores Botanical Survey Update Results. Letter report, May 12, 2008City of Sand City 2008. Monterey Bay Shores Resort, Revised Draft Addendum to the Final Environmental Impact Report, October 2008.

Ghandour, E. 2008. Monterey Bay Shores Ecoresort, Wellness Spa, and Residences, Supplemental Documents (Volume 1). Oversize SNG and subconsultant design documents; Coastal Commission, Central Coast Area file, August 13, 2008.

Haro, Kasinich & Associates, Inc. 2003. Coastal Recession Evaluation for Coastline of Sand City, California. Prepared for City of Sand City, California. Project No. M8211.

Haro, Kasinich & Associates, Inc. 2009. Coastal and Geotechnical Hazards, Monterey Bay shores resort, Sand City, Monterey County, California. Memorandum, February 3, 2009.

Moffett and Nichol, Engineers. 1989. City of Sand City Shore Erosion Study – Final. December 1989. Prepared for the City of Sand City and the Task Force Advisory Committee. Project No. 2622.

Ilse, J. 2008. Review of potential impacts to Offsite Biological Resources of Monterey Bay shores Eco-Resor, Sand City, California. Memorandum, October 16, 2008.

Neuman, K. and G. Page. 2008. Western Snowy Plovers at Sand City, April-July 2006. Report, PRBO Conservation Science, Petaluma, CA.

Zander Associates. 2008. Biotic Assessment, Monterey Bay Shroes EIR Addendum, Sand City. Letter report, June 18, 2008

Page, G. J.C. Warriner, J.S. Warriner, C. Eyster, K. Neumann, J. Erbes, D. Dixon, and A. Palkovic. 2007. Nesting of the snowy plover at Monterey Bay and on beaches of Northern Santa Cruz County, California, in 2007. PRBO Publication # 1950, November 2007.

Zander Associates. 2007. Western snowy plovers, Sand City shoreline. Letter report to Steve Matarazzo, City of Sand City, September 12, 2007.

U.S. Fish and Wildlife Service. 2007. Recovery Plan for the Pacific Coast Population of Western Snowy Plover (*Charadrius alexandrinus nivosus*). USFWS California-Nevada Operations Office, Sacramento, CA.

Thornton, E.B. J. MacMahan, and A.H. Sallenger Jr. (2007). Rip currents, mega-cusps, and eroding dunes. Marine Geology, v. 240: 2-4, p. 151-167. 5 June 2007.

Thornton, E.B., A.H. Sallenger, J. Conforto Sesto, L. A. Egley, T. McGee, and A.R. Parsons, (2006). Sand mining impacts on long-term dune erosion in southern Monterey Bay, Marine Geology, v. 229, p. 45-58.