

CALIFORNIA COASTAL COMMISSION

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W12c

February 7, 2017

TO: Coastal Commissioners and Interested Parties

FROM: Alison Dettmer, Deputy Director
Tom Luster, Senior Environmental Scientist

SUBJECT: Addendum to Staff Report for Coastal Development Permit Application A-3-SNC-10-010-A4, City of Sand City

This addendum provides revisions to the January 27, 2017 staff report on the City of Sand City's requested permit amendment allowing installation of new intake wells and associated infrastructure for its desalination facility. The revisions consist of minor corrections to the proposed **Special Conditions** and do not modify staff's recommendation that the Commission **approve** the requested permit amendment.

REVISIONS

The following are revisions to the text of the staff report and recommendation. Proposed deletions are marked with ~~strike through~~ text and additions are marked with **bold underlined** text.

Modify Special Condition 4: To clarify that the Commission's originally-approved **Special Condition 4** continues to require permanent protection of dune habitat at the location of the desalination facility and its water tanks, staff recommends the sentence shown as deleted from the first paragraph of **Special Condition 4** be retained, as shown below:

“Sensitive Habitat Surveys, Protection, and Mitigation. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit the results of the preconstruction biological surveys required by Special Condition #12.10 below or by this condition, accompanied by ~~revised final design (Special Condition #1a), construction (Special Condition #3), and/or landscape plans (Special Condition #12.2) for the coastal zone for Executive Director review and approval. Any portions of the parcels to be acquired for the desalination plant and water tanks that contain coastal dune habitat shall be permanently protected.~~ Any portions of the parcels to be acquired for the desalination plant and water tanks that contain coastal dune habitat shall be permanently protected. Implementation of the mitigation measures required below shall be accompanied by the submittal of a letter report prepared by a qualified biologist, detailing the success of the mitigation and any necessary follow-up, for Executive Director review and approval within 30 days of commencement...”

Change references in the Staff Report from “new Special Condition 13” to “new Special Condition 14”: The Commission’s originally approved permit included a **Special Condition 13**, so staff’s new proposed condition is **Special Condition 14**. This changed reference applies to the following:

- Staff Recommendation, page 2, second paragraph:

“Staff is also recommending a new **Special Condition ~~13~~14** that would require the City to submit a CDP permit amendment application shortly after installing new wells to ensure that the currently existing wells are properly abandoned or removed.”

- Section III, Special Conditions – Introduction, page 5:

“*Note:* The original permit included a number of Special Conditions (see Exhibit B). This amendment modifies the original **Special Conditions 3, 4, and 12.10** and adds a new **Special Condition ~~13~~14** shown below...”

- Section IV.B., Proposed Amendment, page 10, from second paragraph:

“To ensure the wells subject to these “onset of risk” conditions are removed and do not pose an ongoing threat to coastal resources, new **Special Condition ~~13~~14** requires the City, within 60 days of installing any Phase 2 wells, to apply for an amended CDP to abandon the facility’s existing wells.”

- Section IV.C., Coastal Hazards, page 11, from third paragraph:

“To ensure that the wells affected by these “onset of risk” conditions are properly abandoned and do not result in adverse coastal resource effects, new **Special Condition ~~13~~14** requires the City to submit an application to amend to this CDP for removing these wells shortly after installation of any new Phase 2 wells.”

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Filed:	December 20, 2016
180 th Day:	June 18, 2017
Staff:	T. Luster-SF
Staff Report:	January 27, 2017
Hearing Date:	February 8, 2017

STAFF REPORT: MATERIAL AMENDMENT

Application No.:	A-3-SNC-10-010-A4
Applicant/Appellant:	City of Sand City
Project Location:	On Tioga Avenue, Vista Del Mar Street, Bay Street, and Sand Dunes Avenue, City of Sand City, Monterey County.
Description of Previously Approved Project:	Construct and operate a desalination facility and associated infrastructure at sites along and near the Monterey Bay shoreline in the City of Sand City.
Description of Proposed Permit Amendment:	Install up to six new intake wells and associated pipelines and infrastructure for use by existing desalination facility.
Staff Recommendation:	Approval with Special Conditions

SUMMARY OF STAFF RECOMMENDATION

The City of Sand City (“the City”) is proposing to amend Coastal Development Permit (“CDP”) A-3-SNC-10-010 that the Commission approved in May 2005 allowing construction and operation of the City’s desalination facility. The City’s proposed amendment involves installing up to six new wells and associated pipelines and infrastructure needed to provide source water to the desalination facility. The new wells would be located several hundred feet inland of the existing wells, which are near the City’s Monterey Bay shoreline and have been subjected to risks associated with coastal erosion and changes in their source water quality.

Although the amendment would increase the number of wells from the current four wells to six wells, the City is not proposing to change the maximum allowable production from the facility of up to 300 acre-feet per year, nor is it proposing to modify the City's water distribution system or to serve currently unserved areas. Instead, the City expects the additional wells to provide operational flexibility, in that they will draw in source water with different salinity concentrations that can be blended to provide the preferred level of salinity for the facility.

To ensure the proposed amendment is consistent with the City's LCP, staff recommends the Commission approve the amendment with modifications to several of the **Special Conditions** the Commission included in its original permit approval. For example, the original **Special Condition 3** required the City to submit a construction plan describing mitigation measures that the City would implement during project construction. Staff's recommendation for this proposed amendment is that the Commission modify **Special Condition 3** to apply to the amendment's proposed activities. Similarly, the original **Special Condition 4** and **Special Condition 12.10** required a number of measures meant to avoid and reduce potential project impacts to nearby sensitive species and habitat areas, and staff is recommending the Commission modify those **Special Conditions** to apply specifically to the proposed amendment. Staff is also recommending a new **Special Condition 13** that would require the City to submit a CDP permit amendment application shortly after installing new wells to ensure that the currently existing wells are properly abandoned or removed. Staff believes that the proposed amendment, as conditioned, would be consistent with the City's LCP policies related to coastal hazards, sensitive habitat areas, public access, and visual resources.

Recommendation

Staff recommends the Commission **approve** the proposed Findings, as conditioned. The motion to adopt the staff recommendation of approval of the permit amendment, as conditioned, is found on page 4.

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EXHIBITS

Exhibit 1 – Project Area and Location of Project Components

Exhibit 2 – Original Permit Conditions

I. MOTION & RESOLUTION

Staff recommends that the Commission, after public hearing, adopt the following resolution. Passage of the motion will result in approval of the permit amendment as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Motion

*I move that the Commission approve Coastal Development Permit Amendment A-3-SNC-104010-A4 pursuant to the staff recommendation, and I recommend a **yes** vote.*

Resolution to Approve CDP

The Commission hereby approves the coastal development permit amendment and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the City of Sand City Local Coastal Program policies and Coastal Act access and recreation policies. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

This permit is subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

Note: The original permit included a number of Special Conditions (see Exhibit B). This amendment modifies the original **Special Conditions 3, 4, and 12.10** and adds a new **Special Condition 13** shown below in **bold underlined** and ~~double-strikethrough~~ text. The other **Special Conditions** are unchanged and remain in force.

3. Construction Plan. PRIOR TO ISSUANCE OF THE AMENDED COASTAL DEVELOPMENT PERMIT, the Applicant shall submit the Spill Prevention and Response Plan and a Construction Plan to the Executive Director for review and approval. In addition to the measures specified under Conditions #12.7, 12.8, 12.10, 12.11, 12.12, and 12.13 below, the Construction Plan shall identify the specific location of all construction areas, all staging areas, and all construction access corridors in site plan view in the coastal zone. Construction and staging zones shall be limited to the minimum area required to implement the approved project, and shall minimize encroachment onto the dunes, bluff, and beach by using, for example, existing paved areas for staging and storing construction equipment and materials. Consistent with these restrictions, public access shall be disrupted as little as possible, and corridors or detours to allow beach and bicycle access during construction shall be identified by the construction plan and maintained by the permittee throughout the construction period.

The Construction Plan shall also identify the type and location of erosion control/water quality best management practices that will be implemented during construction to protect coastal water quality, including the following:

- a. Silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction areas to prevent construction-related runoff and/or sediment from entering the dunes and/or the Pacific Ocean.
- b. All construction materials and equipment shall be removed in their entirety from the dune and beach area by sunset each day that work occurs. The only exception shall be for the temporary erosion and sediment controls required above.
- c. Grading and alteration of the dunes and beach intertidal area outside of the approved construction zone is prohibited with one exception as follows: the existing asphalt and rock debris in the vicinity of Vista del Mar Street and Tioga Avenue may be removed in accordance with the final approved plans, using excavation equipment positioned landward of the waterline (i.e., excavator equipment with mechanical extension arms).
- d. Equipment washing, refueling, and/or servicing shall not take place on the beach or sandy dune area. All construction equipment shall be inspected and maintained at an off-site location to prevent leaks and spills of hazardous materials at the project site.
- e. The construction site shall maintain good construction housekeeping controls and procedures (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain (including covering exposed piles of soil and wastes); dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the beach).
- f. All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each workday.

A copy of the approved Construction Plan shall be kept at the construction job site at all times and all persons involved with the construction shall be briefed on its content and meaning prior to commencement of construction. The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least 3 working days in advance of commencement of construction, and immediately upon completion of construction.

The Permittee shall undertake construction in accordance with the approved Construction Plan. Any proposed changes to the approved Construction Plan shall be reported to the Executive Director. No changes to the approved Construction Plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

4. Sensitive Habitat Surveys, Protection, and Mitigation. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit the results of the preconstruction biological surveys required by Special Condition #12.10 below or by this condition, accompanied by ~~revised final design (Special Condition #1a), construction (Special Condition #3), and/or landscape plans (Special Condition #12.2) for the coastal zone~~ for Executive Director review and approval. ~~Any portions of the parcels to be acquired for the desalination plant and water tanks that contain coastal dune habitat shall be permanently protected.~~ Implementation of the mitigation measures required below shall be accompanied by the submittal of a letter report prepared by a qualified biologist, detailing the success of the mitigation and any necessary follow-up, for Executive Director review and approval within 30 days of commencement. In addition to the measures specified under Conditions #12.10 and #12.13 below, the following are required (pursuant to the *Final EIR*):

- a. Surveys for listed species shall be consistent with the protocols established by the US Fish and Wildlife Service and California Department of Fish and ~~Game~~ **Wildlife**;
- ~~b. Surveys for Monterey spineflower, sand gilia, coast wallflower, and Monterey Indian paintbrush along the pipeline alignment and at the plant site shall be prepared during the April to September flowering season immediately prior to project construction;~~
- ~~c. In the event that any Monterey spineflower, sand gilia, coast wallflower, or Monterey Indian paintbrush are found, construction methods will be modified to include directional drilling under the under the plant colony, with bore pits to be installed within currently paved areas of roadway;~~
- d. Protocol surveys will also be prepared for the two species of buckwheat (*Eriogonum latifolium* and *Eriogonum parvifolium*) that are the host plants for the federally endangered Smith's blue butterfly;
- e. In the event that any *Eriogonum latifolium* or *Eriogonum parvifolium* are found, construction shall not occur in areas adjacent to those populations during the period of June through September;
- ~~f. In the event installation of pipelines and/or plant construction will directly impact any *Eriogonum latifolium* or *Eriogonum parvifolium*, damaged or removed buckwheat plants will be replaced at a 3:1 ratio in accordance with a Butterfly Habitat Restoration Plan submitted for Executive Director review and approval prior to the removal of the plants. At least 70% of these plantings shall survive for 5 years and be monitored annually. If this goal has not been met at 5 years, then planting will continue until compliance is achieved;~~

- g. Surveys for black legless lizards will be conducted no more than 24 hours prior to commencement of construction pursuant to a letter report detailing plans for locating and, if necessary, capturing legless lizards and relocating them (including relocation methods and release sites) provided to the California Department of Fish and ~~Game~~ **Wildlife** for approval prior to conducting the surveys;
- h. In the event that any black legless lizards are found in the work area they are to be moved to suitable areas away from the construction zone, pursuant to the letter report described above;
- i. Surveys for the burrowing owls shall be conducted no more than 30 days prior to commencement of ground disturbing activities.

12-10. A preconstruction biological survey shall be required for potential burrowing owls, Western snowy plover, **and** black legless lizards ~~and all sensitive plant species identified in the project environmental impact report (EIR).~~ If construction is to occur between March and September, a qualified ornithologist will conduct a pre-construction survey for nesting snowy plovers within 500 feet of construction activity. If nesting snowy plovers are identified within 500 feet, the ornithologist will, in consultation with the U.S. Fish & Wildlife Service determine a construction-free setback around the nest. The setback shall be fenced and construction equipment and workers will not be allowed to enter the enclosed setback until the conclusion of the breeding season.

For construction activities proposed during the nesting season of the burrowing owl (February 1 through August), a construction-free buffer will be established around any active burrowing owl nest. Once the young have fledged, construction activity can occur within close proximity of the former nest. Construction activities shall be monitored by a qualified ornithologist to insure that construction activities do not result in harm or injury to resident owls.

13. Within 60 days of installing any Phase 2 wells, the City shall submit a complete application to amend this coastal development permit requesting abandonment, capping, and/or removal of the four existing intake wells on Vista del Mar Street and Tioga Avenue.

IV. FINDINGS & DECLARATIONS

A. PROJECT DESCRIPTION AND BACKGROUND

On May 11, 2005, the Commission approved a coastal development permit (“CDP”) allowing the City of Sand City (“the City”) to construct and operate a 300 acre-feet per year desalination facility and associated infrastructure at sites within the City and near the shoreline of Monterey Bay (see Exhibit 1 – Project Area and Location of Project Components). The desalination facility itself is located east of Highway 1 on Shasta Avenue. The facility includes two pairs of intake wells – with two wells located along Vista del Mar Street and two wells along Tioga Avenue – and a discharge well located beneath Vista del Mar Street, along with pipelines extending between project components, monitoring wells and equipment, instrumentation, and other similar components.

The Commission later approved two amendments to the original CDP. In February 2008, the Commission approved an immaterial amendment that allowed the City to connect the facility to the existing California-American (“Cal-Am”) water distribution system, which helped Cal-Am use the facility’s water supply to reduce the water it pumps from Carmel River as part of the regional water supply.¹ In November 2009, the Commission approved an immaterial amendment allowing the City to cap one of the existing wells on Tioga Avenue and to install a new well about 75 feet inland of that existing well.² In 2010, the City completed construction and started operating the facility.

One of the City’s main objectives in proposing the original project was to establish an independent water supply for the City. As noted in the Commission’s original approval, **Special Condition 1** authorizes the facility’s maximum production capacity of 300 acre-feet per year, which is meant to provide the water supply for the expected level of build-out identified in the City’s General Plan, LCP, and Redevelopment Plan for areas of the City east of Highway 1. Neither the originally approved project nor the permit amendments provide for increased water production or for water distribution infrastructure in areas west of Highway 1. Expansion of the facility’s production capacity or extension of water service to west of Highway 1 would therefore require an additional amendment to this CDP.

The facility site and design includes several components that allow it to avoid and minimize potential effects on water quality and marine life. The facility obtains its source water from intake wells that intercept brackish water and intruded seawater from about 30 to 40 feet beneath the shoreline, which results in the facility causing none of the adverse effects on marine life that would result from use of an open or screened intake in Monterey Bay. The City was able to design the facility with these environmentally-preferable intake wells because of the hydrogeologic characteristics of the underlying substrate, which provide sufficient permeability

¹ In 1995, the State Water Resources Control Board ordered Cal-Am to reduce its pumping of water from the Carmel River water. With Sand City using water from this desalination facility, it is able to retire the water allocation it would otherwise receive from Cal-Am, which in turn allows Cal-Am to pump less water from the currently overdrawn Carmel River.

² The City provided documentation showing that the well was capped consistent with requirements of the Monterey County Department of Health.

for wells to pull in the expected water volumes needed for the facility. With the well pairs located about 1500 feet apart, the facility was designed to intercept water with somewhat different salinity concentrations, which allows it to pump different amounts from each well to produce a preferred salinity concentration for the facility.³

The facility discharges its effluent into an injection well located near the shoreline at about 30 to 50 feet below grade, which results in the effluent being blended with ambient subsurface seawater before it enters the open waters of Monterey Bay. By using brackish water instead of seawater for its source water, and by operating at an approximately 40% recovery rate (i.e., for every 100 gallons of source water, the facility produces about 40 gallons of potable water), the salinity concentration of the facility's effluent is about equal to that of seawater, so there is little, if any, detectable difference between the effluent and seawater by the time it enters the Bay.

Even with the advantages provided by this site and design, the Commission's initial project review noted that some of the City's proposed well sites were potentially subject to coastal erosion or other coastal hazards during the expected life of the project. The Commission therefore included as part of the CDP **Special Condition 5**, which required the City to prepare an Adaptive Water Supply Management Program that included monitoring of the well sites to determine whether they were at risk for being exposed or undermined, that identified how the City would respond to any "onset of risk" conditions due to coastal erosion or changes in water quality, and that identified proposed relocation measures if the wells needed to be removed or relocated. For water quality changes, the City's adaptive management approach established an "onset of risk" condition that the wells would need to be relocated if their source waters exceeded a salinity threshold of 28,000 mg/L. The relocation component required that any proposed new well locations avoid disturbance of public access to the shoreline, avoid disturbance of sensitive habitat areas, and avoid locations that would require reliance on shoreline protective devices.

In 2014, the City's update of its Adaptive Water Supply Management Program for the project identified an "onset of risk" to the project wells being caused by coastal erosion and due to hydrological "dry" conditions from the state's drought. Basically, as the shoreline moved closer to the well locations and as less groundwater moved from inland areas to those locations, the wells were taking in water with higher salinity concentrations than meant for the facility's treatment system. With the wells now being at similar distances from the shoreline and therefore drawing in water with similar salinity concentrations, the City has limited capacity to modify well operations to maintain salinities within the facility's design range.

³ Desalination systems are generally designed to operate most efficiency within a particular range of salinities, water temperatures, and other factors. The City's facility is designed to operate most efficiently by treating water with salinity levels ranging from about 15,000 to 24,000 mg/L, as compared to seawater, which has an average concentration of about 32,000 mg/L. Producing potable water using the lower concentration source water allows the City to use much less energy and to operate the facility at less cost than would be needed for a facility using seawater.

B. PROPOSED AMENDMENT

To address the changes resulting from coastal erosion and modified salinities, the City proposes to construct, in two phases, up to six new wells to provide source water for the facility. The wells would be located on existing developed and paved areas along Sand Dunes Drive, which runs parallel to the shoreline about 700 feet inland of the existing wells. When completed, the wells would be at or below grade within paved areas and would extend to a depth of about 50-60 feet below the ground surface, which is below the mean high tide line elevation of Monterey Bay. The City would use trenching methods to install pipelines between the wells and to connect to the facility's existing water supply infrastructure along Bay Street, Tioga Avenue, and Sand Dunes Drive. Development proposed through this amendment is fully within the coastal zone and within the City's certified LCP permit jurisdiction where the standard of review is the City's certified LCP.

During the first phase, the City would install three new wells – two active and one redundant – along the southern portion of Sand Dunes Drive. The City would implement the second phase – installing three new wells further north along Sand Dunes Drive – when the City determines that the facility's existing wells along Vista Del Mar Street and Tioga Avenue are subject to hazards related to coastal erosion or have reduced water quality. These wells would be abandoned and capped in place shortly after the new Phase 2 wells are installed. To ensure the wells subject to these “onset of risk” conditions are removed and do not pose an ongoing threat to coastal resources, new **Special Condition 13** requires the City, within 60 days of installing any Phase 2 wells, to apply for an amended CDP to abandon the facility's existing wells.

Although the City's proposal would increase the overall number of available wells (e.g., from the current four wells to up to seven during Phase 1 and up to ten during Phase 2 prior to the City abandoning the currently existing wells), the City is not proposing to increase the facility's maximum permitted production volume of 300 acre-feet per year. Instead, the additional wells are meant to allow the City to operate the facility with more efficiency and flexibility based on which combination of wells would provide the best blend of source water to meet the preferred salinity concentrations for the facility's pretreatment and treatment systems. The City conducted modeling to determine expected salinity levels from several potential locations for the new wells, which showed that the Sand Dunes Drive locations would provide the necessary concentrations and would be set back sufficiently from the shoreline to reduce coastal hazards risks.⁴

Importantly, this proposed amendment reflects the requirements of the Commission's previously approved CDP, particularly those of **Special Condition 5**. As noted above, **Special Condition 5** requires that any proposed relocation of project components identify how the new locations will avoid disturbance of habitat areas, will avoid disruption of public access to the shoreline, and will avoid hazardous locations or locations that would require shoreline protective devices. The City's current proposal largely accomplishes all three of those goals – the new well and pipeline locations would avoid direct habitat impacts, would result in only temporary and *de minimis* impacts to public access, and would be sited sufficiently inland as to not require shoreline protection. These issues are further addressed in relevant sections of these Findings below.

⁴ See HydroMetrics, *Hydrogeology Responses to California Coastal Commission Notice of Incomplete CDP*, prepared for the City of Sand City, April 5, 2016, and Feeney, Martin and David Friedland, *Sand City Water Supply Project, Adaptive Water Supply Management Program Update*, February 2014.

C. COASTAL HAZARDS

LUP Policy 4.3.8 states:

Policy 4.3.8: All development shall be sited and designed to minimize risk from geologic, flood or fire hazard.

This area of the Monterey Bay shoreline is subject to relatively high rates of coastal erosion, as well as storm wave and tsunami run-up, sea level rise, earthquakes, and other types of coastal hazards. Long-term average erosion rates at and near the project site range from roughly one to six feet annually, although storm waves or other phenomena can remove significantly larger sections of the shoreline in a single event.

The City's 2001 field studies conducted as part of siting and designing the facility showed that intake wells located at least 220 feet from the shoreline would allow them to intercept brackish water rather than seawater. As noted above, brackish water requires less energy and less cost to treat than seawater. This distance from the shoreline also reduced the potential that the wells would be damaged or made inoperable due to coastal erosion or other hazards. Nonetheless, concerns about the site's coastal hazards led to the Commission requiring as part of the original project CDP **Special Condition 5**, which required the City to prepare an Adaptive Management Program to be updated every five years. This adaptive plan was to include provisions for monitoring coastal erosion and responding to any potential "onset of risk" from erosion that could affect the facility's intake wells.

Since construction of the facility, however, coastal erosion has resulted in the wells being about 30 to 40 feet closer to the shoreline. Additionally, the substantially lower rainfall in the area over the past several years has reduced freshwater inputs to the aquifer underlying the dune area from which the wells obtain the facility's source water. These two changes have increased groundwater salinity at the well locations to near the "onset of risk" concentration of 28,000 mg/L. The proposed new locations would address both risks – the wells would be located some distance from the ongoing coastal erosion – about 700 feet inland from the shoreline – and would intercept lower salinity water from the area of the underlying aquifer where seawater and freshwater combine to create a brackish interface. To ensure that the wells affected by these "onset of risk" conditions are properly abandoned and do not result in adverse coastal resource effects, new **Special Condition 13** requires the City to submit an application to amend to this CDP for removing these wells shortly after installation of any new Phase 2 wells.

Further, because **Special Condition 5** continues to apply to the City's facility and requires the City to update the Adaptive Management Program at least every five years, it ensures that the City can identify future "onset of risk" conditions and propose further well modifications or relocations as needed.

Conclusion

For the reasons described above, the Commission finds that the amended development is consistent with relevant coastal hazards provisions of the LCP.

D. HABITAT PROTECTION

LUP Policy 6.4.16 states, in relevant part:

Desalination facilities must: ... b) Avoid or fully mitigate any adverse environmental impacts to coastal resources;
c) Be consistent with all LCP and Coastal Act policies, including those for concentrating development, supporting priority coastal uses, and protecting significant scenic and habitat resources...

LUP Policy 4.3.23 states:

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.

The certified Sand City LCP implements Section 30240 of the Coastal Act in part through policies requiring the protection of natural resources and dune habitats. The dune area west of Sand Dune Avenue provides habitat for a number of state and federal endangered or threatened plant and animal species and species of concern, including the Smith's blue butterfly, Western snowy plover, burrowing owls, sand gilia, and Monterey spineflower. Additionally, and pursuant to LUP Policy 4.3.23, the City has designated this area for dune stabilization and restoration. The activities the City is proposing to conduct would occur on paved rights-of-ways within Sand Dune Avenue and the adjacent bike path, so would avoid direct impacts to these habitat areas; however, almost all the work would be within just a few feet of this sensitive dune area.

The City is including in its project several measures to avoid and minimize habitat impacts. Along with conducting work just within existing paved areas, it plans to construct the project during daylight hours only, so will not require additional lighting. When installed, the well pumps will be enclosed and below grade to reduce any potential noise effects. All well and pipeline installation, project staging, equipment storage, vehicle parking, and other similar activities will occur on existing paved areas. Temporary placement of construction barrier fencing may occur within dune habitat, but will avoid vegetated areas. The City notes that precise well locations will be determined in the field at the time of construction, but will avoid any impacts to areas suitable for special-species habitat.

The Commission's originally-approved CDP included several **Special Conditions** meant to ensure habitat protection. **Special Condition 3** requires that the City's project activities be consistent with a Construction Plan prepared by the City and approved by the Executive Director. The Plan includes measures, such as installing perimeter fences at the edge of the construction footprint to prevent runoff or other impacts to dune habitat, prohibiting grading within the dune area, prohibiting washing or servicing of equipment on the beach or sandy areas, implementing spill prevention and response measures to minimize the risk of spills in nearby habitat or coastal waters, and other similar measures. Through this amendment, the Commission is modifying **Special Condition 3** to require the City to update its Construction Plan so that it applies to the currently proposed activities and is subject to Executive Director review and approval.

Similarly, this CDP amendment modifies **Special Condition 4** of the originally-approved CDP, which required the City to conduct pre-construction biological surveys for sensitive species and to take necessary measures, such as timing restrictions, avoidance of sensitive areas, and others, to minimize potential adverse effects to the habitat or its associated species. The work approved under the original permit covered a wider array of sensitive habitats and species, so this amendment modifies **Special Condition 4** to focus on just those requirements applicable to the proposed work. For example, because the upcoming activities will take place only on paved areas, the Commission is removing the previous requirement of **Special Condition 4** that the City conduct surveys for certain plant species, since they would not be present in the work area. However, the Commission is keeping the requirements of **Special Condition 4** that the City survey for nearby populations of two species of buckwheat that serve as host plants for the endangered Smith's blue butterfly and to avoid construction adjacent to those plants between June and September of any year when the adult butterflies are active.

Special Condition 12 also includes requirements applicable to the currently proposed activities and likely to result in avoidance of habitat impacts. For example, **Special Condition 12.10** requires a preconstruction survey to identify the potential presence of burrowing owls, Western snowy plovers and black legless lizards and to establish a "no work" buffer around those species if they are present. Similar to **Special Condition 4**, the Commission is modifying **Special Condition 12.10** for purposes of this amendment so as not to require surveys for plants that are not expected to be affected by these proposed project activities. To further avoid potential direct habitat impacts, **Special Condition 12.11** requires the City to place all spoils generated during well construction on paved areas and not in dune habitat. **Special Condition 12.12** requires the City to implement a worker awareness program for all personnel working near coastal dune habitat, and **Special Condition 12.13** requires the City to install exclusionary fencing prior to starting well installation so as to prevent potential habitat impacts.

Conclusion

For the reasons described above, the Commission finds that the amended development, as conditioned, is consistent with environmentally sensitive habitat area provisions of the LCP.

E. PUBLIC ACCESS AND VISUAL RESOURCES

LUP Policy 5.3.1 states:

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 Policy 5.3.2 states, in relevant part:

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...

LUP Policy 5.3.7 states, in relevant part:

Require new developments to provide vista points along the shoreline and blufftop in conjunction with provision of public vertical and lateral accessways....

Coastal Act Section 30210 states, in relevant part:

...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.

Coastal Act Section 30211 states, in relevant part:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization...

Coastal Act Section 30212 states, in relevant part:

Public access from the nearest public roadway to the shoreline and along the coast shall be provided in all 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...

Coastal Act Section 30221 states:

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.

The project site is located along and just inland of the City's Monterey Bay shoreline. The proposed new well locations are within the paved right-of-way of Sand Dunes Avenue and the adjacent bike path. Both the street and the bike path are used for public access to the shoreline and for the public to benefit from the visual amenities of the Monterey Bay shoreline area. The bike path is part of the Monterey Bay Sanctuary Scenic Trail, which is a segment of the California Coastal Trail.

The project's expected adverse effects on public access to the shoreline and the area's visual resources are expected to be limited to temporary, construction-related activities. Construction will occur on paved portions of the street and bike path and will involve use of heavy equipment to install the wells, along with installation of fencing, stormwater control devices, and other similar temporary structures that will result in no more than short-term effects on public access and visual resources. The City expects that each well installation will take no more than one or two days and that installation of pipelines between the wells will take no more than about five days each, so the effects on public access and visual quality are expected to be temporary and *de minimis*. Additionally, **Special Condition 3** requires the City to provide and maintain corridors

or detours that allow for beach and bicycle access during construction and to submit a construction plan showing the specific locations of all the proposed project components. With the designation of the bike path as part of the Bay's Scenic Trail and the California Coastal Trail, the City will avoid use of the path for well locations, construction storage, or other project activities to the extent feasible, and, as noted above, will maintain an acceptable bike corridor or detour if direct effects cannot be avoided. Once installation is complete, the wells and pipelines will be at or below grade, which is expected to cause no additional effects on access or visual resources.

Conclusion

For the reasons described above, the Commission finds that the amended development, as conditioned is consistent with relevant public access and visual resource provisions of the LCP and Coastal Act.

V. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096(a) of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA 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 Commission's review of the project showed that it will not have any significant or potentially significant effects on the environment and therefore no alternatives or mitigation measures are proposed to avoid or reduce any significant effects on the environment.

APPENDIX A

Substantive File Documents:

- City of Sand City CDP Amendment Application A-3-SNC-10-010-A4.
- City of Sand City CDP A-3-SNC-05-010 Application.
- City of Sand City Environmental Impact Report for Sand City Water Supply Project, January 2005.

CALIFORNIA COASTAL COMMISSION

Central Coast District Office
725 Front Street, Suite 300
Santa Cruz, CA 95060
(831) 427-4863

**COASTAL DEVELOPMENT PERMIT A-3-SNC-05-010****Permittee: City of Sand City**

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The California Coastal Commission approved Coastal Development Permit (CDP) A-3-SNC-05-010 on April 15, 2005, and approved amendments to CDP A-3-SNC-05-010 on June 13, 2007 (A-3-SNC-05-010-A1) and February 8, 2008 (A-3-SNC-05-010-A2). CDP A-3-SNC-05-010 as amended, and subject to the attached standard and special conditions, provides for:

Construction of a desalination facility and potable water distribution system that is capable of delivering 300 acre feet per year (AF/y) of water to serve both City uses and to reduce pumping of the Carmel River and the Seaside Basin Aquifer. The plant will be operated by California American Water Company, and the water diverted back to its system resulting in a pumping reduction that would vary from 300 AF/y initially to 94 AF/y in the long term should full Sand City buildout occur. This project is more specifically described in the application files in the Commission offices.

As of February 27, 2008, the Permittee has satisfied all of the prior to CDP issuance conditions. Therefore, CDP A-3-SNC-05-010 is issued today on behalf of the California Coastal Commission by:

PETER M. DOUGLAS

Executive Director

By: Dan Carl

District Manager

ACKNOWLEDGMENT:

The undersigned permittee acknowledges receipt of this permit and agrees to abide by all terms and conditions thereof.

The undersigned permittee acknowledges that Government Code Section 818.4 which states in pertinent part that: "A Public entity is not liable for injury caused by the issuance. . . of any permit. . ." applies to the issuance of this permit.

IMPORTANT: THIS PERMIT IS NOT VALID UNLESS AND UNTIL A COPY OF THE PERMIT WITH THE SIGNED ACKNOWLEDGMENT HAS BEEN RETURNED TO THE COMMISSION OFFICE, 14 Cal. Adm'n. Code Section 13158(a).

3/27/08

Date

Signature of Permittee

A-3-SNC-10-010-A4

EXHIBIT 2

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STANDARD CONDITIONS:

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

SPECIAL CONDITIONS:

1. **Limits of Development.** This permit authorizes the construction and operation of a 300 AF/y reverse osmosis desalination plant and associated infrastructure as described in de novo finding #A2-4, as clarified and modified by these conditions, for those portions of the project within the Coastal Zone under the jurisdiction of the certified Sand City Local Coastal Program. Those portions of the project in the Coastal Zone in the uncertified area (generally along and south of Bay Avenue seaward of Highway One) are authorized pursuant to CDP waiver 3-07-025-DM issued on June 13, 2007.

2. **Final Plans.**

a. **PRIOR TO ISSUANCE OF THE PERMIT,** the Applicant shall submit final plans for the project components shown on the revised Exhibit 3 attached hereto for Executive Director review and approval of those components located in the coastal zone. The final plans (1) must incorporate any requirements necessary to address the findings of preconstruction biological surveys; (2) must incorporate any requirements from the design level geotechnical report (pursuant to Special Condition #13.5); and (3) must show an improved vertical access at or near the end of Tioga

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Avenue or another comparable access improvement in the project vicinity, specified in or similar to one in the LCP, to be installed concurrently with the project.

b. The Permittee shall undertake development in accordance with the approved plans and any changes shall be reported to the Executive Director. No changes within the coastal zone shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary. Changes to the project requiring review for amendment would include but not be limited to changes in the method of financing the project (see Special Condition #6); changes in ownership (see Special Condition #8); physical, operational, or delivery capacity increases (i.e., beyond 300 AF/y), relocation of the wells (see Special Condition #5), or extension of water supply distribution pipelines (not individual connections from existing or approved lines) in the coastal zone beyond those shown on the final plans.

3. **Construction Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Applicant shall submit the Spill Prevention and Response Plan and a Construction Plan to the Executive Director for review and approval. In addition to the measures specified under Conditions #13.7, 13.8, 13.10, 13.11, 13.12, and 13.13 below, the Construction Plan shall identify the specific location of all construction areas, all staging areas, and all construction access corridors in site plan view in the coastal zone. Construction and staging zones shall be limited to the minimum area required to implement the approved project, and shall minimize encroachment onto the dunes, bluff, and beach by using, for example, existing paved areas for staging and storing construction equipment and materials. Consistent with these restrictions, public access shall be disrupted as little as possible, and corridors or detours to allow beach and bicycle access during construction shall be identified by the construction plan and maintained by the permittee throughout the construction period.

The Construction Plan shall also identify the type and location of erosion control/water quality best management practices that will be implemented during construction to protect coastal water quality, including the following:

a. Silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction areas to prevent construction-related runoff and/or sediment from entering the dunes and/or the Pacific Ocean.

b. All construction materials and equipment shall be removed in their entirety from the dune and beach area by sunset each day that work occurs. The only exception shall be for the temporary erosion and sediment controls required above.

c. Grading and alteration of the dunes and beach intertidal area outside of the approved construction zone is prohibited with one exception as follows: the existing asphalt and rock debris in the vicinity of Vista del Mar Street and Tioga Avenue may be removed in accordance with the final approved plans, using excavation equipment positioned landward of the waterline (i.e., excavator equipment with mechanical extension arms).

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d. Equipment washing, refueling, and/or servicing shall not take place on the beach or sandy dune area. All construction equipment shall be inspected and maintained at an off-site location to prevent leaks and spills of hazardous materials at the project site.

e. The construction site shall maintain good construction housekeeping controls and procedures (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain (including covering exposed piles of soil and wastes); dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the beach).

f. All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each workday.

A copy of the approved Construction Plan shall be kept at the construction job site at all times and all persons involved with the construction shall be briefed on its content and meaning prior to commencement of construction. The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least 3 working days in advance of commencement of construction, and immediately upon completion of construction.

The Permittee shall undertake construction in accordance with the approved Construction Plan. Any proposed changes to the approved Construction Plan shall be reported to the Executive Director. No changes to the approved Construction Plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

4. Sensitive Habitat Surveys, Protection, and Mitigation. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit the results of the preconstruction biological surveys required by Special Condition #13.10 below or by this condition, accompanied by revised final design (Special Condition #1a), construction (Special Condition #3), and/or landscape plans (Special Condition #13.2) for the coastal zone for Executive Director review and approval. Any portions of the parcels to be acquired for the desalination plant that contain coastal dune habitat shall be permanently protected. Implementation of the mitigation measures required below shall be accompanied by the submittal of a letter report prepared by a qualified biologist, detailing the success of the mitigation and any necessary follow-up, for Executive Director review and approval within 30 days of commencement. In addition to the measures specified under Conditions #13.10 and #13.13 below, the following are required (pursuant to the *Final EIR*):

a. Surveys for listed species shall be consistent with the protocols established by the US Fish and Wildlife Service and California Department of Fish and Game;

b. Surveys for Monterey spineflower, sand gilia, coast wallflower, and Monterey Indian paintbrush along the pipeline alignment and at the plant site shall be prepared during the April to September flowering season immediately prior to project construction;

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- c. In the event that any Monterey spineflower, sand gilia, coast wallflower, or Monterey Indian paintbrush are found, construction methods will be modified to include directional drilling under the under the plant colony, with bore pits to be installed within currently paved areas of roadway;
- d. Protocol surveys will also be prepared for the two species of buckwheat (*Eriogonum latifolium* and *Eriogonum parvifolium*) that are the host plants for the federally endangered Smith's blue butterfly;
- e. In the event that any *Eriogonum latifolium* or *Eriogonum parvifolium* are found, construction shall not occur in areas adjacent to those populations during the period of June through September;
- f. In the event installation of pipelines and/or plant construction will directly impact any *Eriogonum latifolium* or *Eriogonum parvifolium*, damaged or removed buckwheat plants will be replaced at a 3:1 ratio in accordance with a Butterfly Habitat Restoration Plan submitted for Executive Director review and approval prior to the removal of the plants. At least 70% of these plantings shall survive for 5 years and be monitored annually. If this goal has not been met at 5 years, then planting will continue until compliance is achieved;
- g. Surveys for black legless lizards will be conducted no more than 24 hours prior to commencement of construction pursuant to a letter report detailing plans for locating and, if necessary, capturing legless lizards and relocating them (including relocation methods and release sites) provided to the California Department of Fish and Game for approval prior to conducting the surveys;
- h. In the event that any black legless lizards are found in the work area they are to be moved to suitable areas away from the construction zone, pursuant to the letter report described above;
- i. Surveys for the burrowing owls shall be conducted no more than 30 days prior to commencement of ground disturbing activities.

5. Relocation / Removal of Wells. PRIOR TO ISSUANCE OF THE PERMIT, the Applicant shall submit a final Adaptive Water Supply Management Program, for Executive Director review and approval. Upon approval, Applicant shall implement the program for the life of the project. The Program shall have monitoring, relocation, and update components that expand on the narrative on page 14 of the *Draft EIR* as follows:

- a. The monitoring component shall assure that the relocation component can be implemented in a timely manner to avoid (i.) creating or being materially adversely impacted by hazardous conditions (ii.) unpermitted or emergency permitted work and (iii.) the installation of shoreline protection measures. The monitoring component shall detail the frequency, methods, staffing, locations, and other specific aspects of the noted observations to be made (including beach profile and well water quality). This component shall be prepared by a licensed geologist, or civil or geotechnical engineer. It shall be sufficient to assess all potential erosion threats to the proposed development and shall include at a minimum: (iv.) provisions for taking measurements of the distance between the proposed surface level and buried development and the bluff face and beach features, including identification of exactly where such three-dimensional measurements will be

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taken, e.g. by reference to benchmarks, survey positions, points shown on an exhibit, etc. and the frequency with which such measurements will be taken; (v.) provisions for submission of "as-built" plans, showing the permitted development in relation to the existing topography and showing the bluff and beach conditions that would constitute the onset of a threat to the approved development ("onset of risk condition"); (vi.) provisions for inspection of the condition of the proposed development and project shoreline by a licensed geologist, or civil or geotechnical engineer, including the scope and frequency of such inspections.

b. The **relocation** component shall address methods and proposed locations for potentially threatened portions of the project, and how the abandoned portions of the project will be addressed, consistent with at a minimum (i.) avoidance of sensitive habitat disturbance and consistency with City LCP ESHA protection policies; (ii.) avoidance of public access disturbance, incorporation of access improvements, and consistency with City LCP access policies and (iii.) avoidance of hazardous locations, the need to install shoreline protective devices, and consistency with City LCP hazard policies. The relocation component shall contain a process to ensure timely success including, but not limited to ensuring that (iv.) financing will be available; (v.) potential relocation sites will be acquired; (vi.) all permits and other permissions will be secured and (vii.) construction will take place.

c. The **update** components shall be prepared, and submitted to the Executive Director for review and approval, at least once every five years. Each update shall contain the monitoring results to date, with a conclusion as to what they mean for the timing of when the need for relocation is expected. The update shall include (i.) an evaluation of the condition and performance of the approved development, including an assessment of whether any erosion or bluff retreat has occurred that could adversely impact future performance of the device, (ii.) all measurements taken in conformance with the approved monitoring process, (iii.) an analysis of erosion trends, annual retreat, or rate of retreat of the beach and bluff, based upon the measurements and in conformance with the approved monitoring process, (iv.) an analysis of the stability of the approved development, an estimate of the foreseeable conditions that would modify the bluff or beach to an "onset of risk condition" as identified by the permittee on the "as-built" plans; and the anticipated life of development, based on the conditions of current site and the "onset of threat" conditions.

Each update shall also contain a relocation plan indicating what the results of the relocation analysis have been or are likely to be. The default first relocation site for the injection wells shall be Sand Dunes Drive, unless and until superseded by an approved update. The level of specificity of the relocation plan shall be commensurate with the monitoring conclusions; i.e., when monitoring indicates that relocation will not be necessary for several years, the relocation plan can be conceptual, schematic, and contain alternatives; when monitoring indicates that relocation will likely be necessary within the following five years, the relocation plan shall show an actual relocation site, evidence of approvals, and actual construction plans. As specified in Special Condition #2, an amendment to this Coastal Development Permit shall be required for relocation or removal of the permitted facilities. The application for the amendment shall include an assessment of existing conditions and an evaluation of the potential habitat or other coastal resource impacts associated with re-siting the wells. In addition, the amendment shall include a description of the

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method to be used for relocating facilities, whether or not existing facilities will be abandoned or removed, and include all mitigation measures necessary to avoid impacts on coastal resources.

6. Financing Plan/Growth Inducement: This permit authorizes construction and operation of the proposed municipal water system project. This permit does not authorize any other development. The payment, or agreement to pay, any assessment or other charge used to construct or operate the project (or to finance such costs) shall not confer any right or entitlement to any future development in the Coastal Zone. Notice of this condition shall be provided, in writing, to participants in the assessment district at the time of district formation.

7. Water Conservation Plan. PRIOR TO ISSUANCE OF THE PERMIT, the Applicant shall submit a Water Conservation Plan for Executive Director review and approval. Upon approval, applicant shall implement the plan for the life of the project. The Plan shall include measures to encourage customers to conserve water, recycle water, and use reclaimed water, if available, such as those listed on page 26 of the final EIR (i.e., water efficient washers and dishwashers, landscaping with natives and minimized turf areas, professionally designed lawn sprinkler systems, gray water irrigation, water efficient commercial and industrial processes; free leak detection equipment). The Plan shall include an update component. The Plan shall be consistent with and coordinated other regional or state water conservation programs.

8. Public Ownership. The proposed water system is to be owned by the City of Sand City or the City of Sand City Redevelopment Agency. No changes in ownership (other than between the City and the City Redevelopment Agency) shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary. Any other party that the City or the Redevelopment Agency contracts with to operate the system shall abide by all these permit conditions.

9. Regional Cooperation. The Applicant shall continue its cooperation with regional water supply planning programs. In its negotiations with, and through its membership in, the Monterey Peninsula Water Management District, the City shall remain committed to planning for and operating its desalination water system in a manner that can maximize regional environmental benefits (e.g., reducing dependence on Carmel River withdrawals).

10. Evidence of Other Agency Approvals. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Applicant shall submit to the Executive Director for review and approval, evidence that approvals have been obtained from the Monterey Peninsula Water Management District, National Marine Sanctuary, and U.S. Fish & Wildlife Service or that these approvals are not necessary.

PRIOR TO ANY DISCHARGE FROM THE APPROVED PROJECT, the Applicant shall submit to the Executive Director for review and approval evidence that approval has been obtained from the Regional Water Quality Control Board or that this approval is not necessary.

11. Assumption of Risk, Waiver of Liability and Indemnity Agreement. The Permittee acknowledges and agrees, on behalf of itself and all successors and assigns: (i) that the site is subject to hazards from episodic and long-term bluff retreat and coastal erosion, stream erosion and

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scour, wave and storm events, bluff and other geologic instability, and the interaction of same; (ii) to assume the risks to the Permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (v) that any adverse effects to property caused by the permitted project shall be fully the responsibility of the landowner.

12. City Conditions. The following conditions of the City of Sand City's approval of the Project become conditions of this coastal development permit and the City shall submit evidence of compliance with each of them for Executive Director review and approval. Other conditions of Sand City's approval pursuant to any planning authority other than the Coastal Act continue to apply (e.g., conditions #9 and #17).

2. Prior to issuance of building permit(s) for the desalination plant, a final landscape plan and architectural drawings shall be reviewed and approved by the Design Review Committee (DRC). The final landscape plan shall (a) be in accordance with Section 18.62.050 of the Municipal Code; (b) utilize native, non-invasive coastal plants to the extent feasible; and (c) provide for the use of drought tolerant plants in accordance with Chapter 15.12 of the Municipal Code.

3. Prior to public distribution of water, the City and/or the Redevelopment Agency shall obtain a final design permit from the DRC in accordance with Chapter 18.58 of the Municipal Code. The final design shall be consistent with the requirements of Chapter 18.64 of the Municipal Code and shall include a lighting plan which provides for the illumination of the desalination facility site for security purposes. The final design for the building(s) shall include plans for the design and screening of mechanical equipment proposed to be located on the building(s).

4. Prior to supplying water for potable uses, the City and/or the Redevelopment agency shall obtain approval for operation of a water system from the California Department of Health Services (DHS) and shall obtain all necessary approvals from the Monterey County Department of Environmental Health.

5. Prior to the issuance of building permits, a design-level geotechnical report shall be completed to recommend specific design criteria for the pipelines, wells, and foundations of structures at the desalination facility. The geotechnical report shall include site-specific evaluation of soils conditions, slope stability, ground-shaking and the potential for liquefaction, lateral spreading and seismically induced dry sand settlement. The report shall also address design criteria for avoiding impacts of coastal recession, erosion, and coastal bluff slope stability on the operation of the water supply system. At a minimum, design criteria shall include horizontal and vertical setbacks or safety factors for wells and pipelines within the area subject to coastal recession during the next 50 years. These criteria and recommendations shall be required conditions of the building and grading permits issued for the project.

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All geotechnical reports shall be submitted to the Sand City Community Development Department and shall be peer-reviewed by a certified geotechnical engineer.

A design-level geotechnical study shall be required and peer reviewed prior to issuance of building permit(s).

Said study shall address design criteria for avoiding impacts of coastal recession, erosion and coastal bluff slope instability on the operation of the water supply system. At a minimum, design criteria shall include horizontal and vertical setbacks or factors of safety for wells and pipelines within the area subject to coastal recession during the next 50 years. Recommended factors of safety will be required conditions attached to the building permit(s) and will be part of the "adaptive water supply management program". Furthermore, the adaptive water supply management program, as proposed on page 14 of the Draft EIR is hereby incorporated by reference into this condition of project approval.

6. The RO/desalination facility on Shasta Avenue and its associated components shall be designed and constructed in accordance with the 1997 Uniform Building Code guidelines for Seismic Zone 4.

7. A final grading and erosion control plan for all applicable project components shall be submitted to, and approved by the City Engineer prior to issuance of a final grading permit. The plan shall provide that any grading between October 1 and April 15 will require approval of the City Engineer and shall be consistent with said plan. Implementation of the final grading plan shall also be consistent with habitat protection measures of these permit conditions.

8. All construction contracts shall require watering of exposed earth surfaces in the late morning and at the end of the day; frequency of watering shall be increased if wind speeds exceed 15 miles per hour.

10. A preconstruction biological survey shall be required for potential burrowing owls, Western snowy plover, black legless lizards and all sensitive plant species identified in the project environmental impact report (EIR). If construction is to occur between March and September, a qualified ornithologist will conduct a pre-construction survey for nesting snowy plovers within 500 feet of construction activity. If nesting snowy plovers are identified within 500 feet, the ornithologist will, in consultation with the U.S. Fish & Wildlife Service determine a construction-free setback around the nest. The setback shall be fenced and construction equipment and workers will not be allowed to enter the enclosed setback until the conclusion of the breeding season.

For construction activities proposed during the nesting season of the burrowing owl (February 1 through August), a construction-free buffer will be established around any active burrowing owl nest. Once the young have fledged, construction activity can occur within close proximity of the former nest. Construction activities shall be monitored by a qualified ornithologist to insure that construction activities do not result in harm or injury to resident owls.

11. Spoils piles generated during trenching and installation of temporary bore pits for the installation of pipelines and wells shall only be placed on existing pavement or in designated

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storage areas. The placement of trenching spoils within coastal dune habitat or in areas supporting buckwheat plants shall be prohibited. These requirements shall be conditions of all grading permits issued for the project.

12. A construction worker awareness program shall be required for all personnel working near coastal dune habitat prior to the initiation of work. The program shall include the general habits of special status species that could be present in the area, a discussion of dune erosion factors, legal requirements and protections that apply, and measures to be used by project personnel to minimize the risk of impacts to coastal dune habitat or special status plant or animal species during project implementation. This construction awareness program shall be a required part of all appropriate bid requirements issued by the City Engineer.

13. Exclusionary fencing shall be provided in areas identified as being necessary for such restrictions as determined by the preconstruction biological survey of areas to be disturbed by the project.

14. The discharge of concentrate (byproduct water of the desalination process) through subsurface injection well(s) shall have a total dissolved solids (TDS) content limited to a maximum of 35,000 mg/L.

15. If cultural resources are uncovered during site preparation or construction, work shall be halted in the immediate area of the find and the regional office of the California State Archeological Survey and the City of Sand City planning department shall be notified so that suitable mitigation measures can be implemented, if necessary. Potential mitigation measures, as applicable, are described on pages 136, 137 of the Draft EIR for the project, and are incorporated herein by reference.

16. To the extent feasible, the RO/desalination facility shall be operated as needed to maintain adequate water supply for water users and for fire flows. The design of the RO/desalination facility shall require, in contract documents that state-of-the-art membrane technology be used and that an energy recovery system for the high pressure pumps be installed.

13. Reduction in Carmel River and Seaside Basin Aquifer Pumping.

Prior to commencement of operation of the City of Sand City Water Supply Project (SCWSP), the City of Sand City shall submit for Executive Director review and approval all contracts, ordinances, agreements, understandings, and/or similar instruments by and between the City of Sand City and California American Water (Cal-Am), the Monterey Peninsula Water Management District (MPWMD), the Regional Water Quality Control Board (RWQCB), and all other similar and/or successor water purveyors and/or agencies, related to water produced by the SCWSP. **Documentation.** All such documentation shall clearly provide for the following:

As of the end of the 2005/2006 Water Year (i.e., the most current information available), Cal-Am supplied 94 acre-feet per year (AFY) of potable water to existing development within the City of Sand City.

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New and/or expanded uses and development located within the City of Sand City at full build-out may require up to 300 AFY of potable water (i.e., up to an additional 206 AFY beyond the current use).

The SCWSP shall produce and deliver to Cal-Am's water supply and distribution system 300 AFY of potable water. In return, Cal-Am and MPWMD shall allocate up to 206 AFY of additional potable water (i.e., in addition to the current allocation) to serve appropriately permitted new and/or expanded uses and development that are located within the City of Sand City; any use of such water allocation outside the City is prohibited.

City of Sand City water allocations, entitlements, connections and/or other water-related authorizations shall not be transferred out of the City of Sand City.

The addition of water produced by the SCWSP to Cal-Am's water supply and distribution system will result in a reduction in the volume of pumping of the Carmel River (wells and/or direct withdrawals) and/or the Seaside Basin Aquifer per year by the volume that results from subtracting (a) the volume of additional water allocated by Cal-Am and MPWMD per year to serve permitted new and/or expanded uses and development in the City of Sand City from (b) the 300 AFY of SCWSP water produced and delivered to the Cal-Am system per year. In the immediate term, based on the current potable water use by existing development within the City, the reduction in pumping would be 300 AFY (i.e., 300 AFY SCWSP water - 0 AFY allocated to new/expanded uses and development). At full build-out, the reduction in pumping would be 94 AFY (i.e., 300 AFY SCWSP water - 206 AFY allocated to new/expanded uses and development). Thus, the volume of pumping of the Carmel River and/or the Seaside Basin Aquifer per year due to the SCWSP shall be reduced by a minimum of 94 AFY and up to a maximum of 300 AFY.

All requirements of this condition above shall be enforceable components of this coastal development permit. The City of Sand City shall undertake development in accordance with the approved Documentation. Any proposed changes to the approved Documentation shall be reported to the Executive Director. No changes to the approved Documentation shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.