

CALIFORNIA COASTAL COMMISSION

CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
(831) 427-4863

*RJH
3/22/01*



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PERMIT AMENDMENT

Application number.....3-90-041-A4

Applicant.....City of Capitola

Project Location.....Soquel Creek rivermouth, Capitola, Santa Cruz County

Project Description.....Five-year extension of previous permit for implementation of the Soquel Creek Lagoon Enhancement and Management Plan including yearly formation of a sandbar across Soquel Creek in conjunction with ongoing program to monitor and restore the natural creek system (see Section B and Exhibit 5 for details).

File documents:..... Soquel Lagoon Management and Enhancement Plan, 1990; Soquel Creek Lagoon Monitoring Reports, 1990-97, 1999 (D.W. Alley & Associates); Summary Report Regarding Development, Implementation and Monitoring of the Soquel Creek Lagoon Management and Enhancement Plan, 1996 (D.W Alley & Associates); CDP 3-89-75; CDP 3-90-041; CDP 3-90-41-A2.

Staff Recommendation.....Approval with Conditions

Procedural Note

Coastal Development Permit Amendments

The Commission's regulations provide for referral of permit amendment requests to the Commission if:

1. The Executive Director determines that the proposed amendment is a material change,
2. Objection is made to the Executive Director's determination of immateriality, or



California Coastal Commission

3. The proposed amendment affects conditions required for the purpose of protecting a coastal resource or coastal access.

If the applicant or objector so requests, the Commission shall make an independent determination as to whether the proposed amendment is material (Title 14 California Administrative Code Section 13166).

The subject application is being forwarded to the Commission because the Executive Director has determined that the proposed amendment affects conditions required for the purposes of protecting coastal resources or coastal access.

I. EXECUTIVE SUMMARY

The City of Capitola is requesting to extend coastal permit 3-90-041 for an additional five years in order to continue management of the Soquel Creek lagoon consistent with the policies of the Soquel Creek Lagoon Management and Enhancement Plan. The activities undertaken yearly include closing Soquel Creek to form a recreation lagoon, the removal of kelp and detritus, installation of a shroud device to convert salt to freshwater (if necessary), and continuation of aquatic habitat and water quality monitoring. The activities are overseen by the California Department of Fish and Game 1601 stream alteration agreement process.

Lagoon formation previously was permitted by the Commission on a yearly basis pending completion of the Management Plan. Following adoption of the Management Plan, the Coastal Commission granted a five-year permit for continued lagoon formation and implementation of the Management Plan with the condition that upon the completion of the final monitoring document the City submit their findings to the Commission. The Commission found that the artificial closure of the lagoon for recreational purposes alone would not be consistent with Coastal Act policy 30233, which strictly regulates alteration of the open coastal waters and estuarine environments. However, the closure of the lagoon as part of an overall program to restore the natural creek system was found consistent with Section 30233(a)(7), which allows restoration. In addition, Section 30236 allows alteration of streams where the primary function is the improvement of fish and wildlife habitat. Ten years of monitoring reports regarding management of the lagoon and related activities show that the main result has been improved habitat for fish and native waterfowl. Therefore, the basic program remains sound and the Commission's finding of consistency with relevant Coastal Act policies remains applicable.

Water quality, however, has not improved sufficiently to allow certain types of recreational use, primarily swimming. Aquatic monitoring indicates the need for ongoing adjustments to the operation to maximize habitat protection by responding to changing conditions and new information.

The City has indicated that it will continue annual monitoring. Staff recommends approval of the amendment with the continued annual monitoring, with an annual accounting of recommendations and their implementation to be submitted to the Executive Director. Also, the permit amendment is limited to five additional years, to allow another Commission review after that time period. Finally, the permit is conditioned to require evidence of other agencies' approvals (Department of Fish and



Game, Army Corps of Engineers). As conditioned, there would be no adverse impacts to coastal resources or public access and the amendment request is consistent with Chapter 3 of the Coastal Act.

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II. STAFF RECOMMENDATION ON AMENDMENT

The staff recommends that the Commission, after public hearing, **approve** the proposed amendment subject to the standard and special conditions below. Staff recommends a **YES** vote on the following motion:

Motion: I move that the Commission approve Coastal Development Permit Number 3-90-041-A4 subject to the conditions below and that the Commission adopt the following resolution:

Staff Recommendation of Approval. Staff recommends a YES vote. Passage of this motion will result in approval of the 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.

Resolution to Approve a Coastal Development Permit Amendment. *The Commission hereby approves the coastal development permit amendment on the ground that the*



development as amended and subject to conditions, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit amendment 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 amended development on the environment; or (2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the amended development on the environment.

III. CONDITIONS OF APPROVAL

A. 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.

B. Special Conditions

1. APPROVED DEVELOPMENT

- a. **THIS PERMIT, SUBJECT TO THE FOLLOWING CONDITIONS,** allows for ongoing implementation of the Soquel Creek Lagoon Management and Enhancement Plan (July 1990), which includes yearly formation of a sandbar at the mouth of Soquel Creek. This permit shall run for up to five years and will expire May 1, 2006. Any proposed substantive change in the stated method of lagoon formation or description of area disturbed shall be submitted to the State Lands Commission for review and to the Executive Director for review and approval or a determination that a coastal development permit amendment is necessary. The information shall be submitted in a timely fashion (not less than three months prior to proposed sandbar formation) to allow adequate time for processing an amendment if needed.



- b. **FOR EACH YEAR OF THE PERMIT** the City shall hire a qualified fisheries biologist to monitor sandbar closure and lagoon water quality throughout the summer and fall lagoon period, as well as perform any additional monitoring measures required by other resource agencies. The fisheries biologist will prepare annual monitoring reports that detail all aspects of lagoon formation and results of water quality monitoring and fish censuses. These reports shall include recommendations regarding further management policies related to maintenance of the summer lagoon. The monitoring reports will also detail all previously made recommendations regarding water quality and whether or not these recommendations have been implemented. If recommendations have not been implemented, the monitoring report shall state the reasons why and offer alternative recommendations for the subsequent year to address the observed problems. By June 1st of each subsequent year the City will forward a copy of the annual report to the Executive Director for review.
- c. The City may request a subsequent amendment of this permit, to extend implementation for an additional time period, by filing an amendment application before May 1, 2006, provided that all five required annual monitoring reports have been submitted.

2. OTHER AGENCY PERMITS/REQUIREMENTS

- a. **PRIOR TO COMMENCEMENT OF CONSTRUCTION OF THE SANDBAR**, the permittee shall provide to the Executive Director a copy of the U. S. Army Corps of Engineers permit (including a copy of the NMFS consultation), or letter of permission, or evidence that no Corps permit is necessary for the life of the project. If the Corps permit is for less than five years, the permittee must acquire and submit subsequent Corps permits or letters of permission for the remaining years of this permit, prior to commencement of construction of the sandbar during subsequent years.
- b. **PRIOR TO COMMENCEMENT OF CONSTRUCTION**, the permittee shall submit a copy of the California Department of Fish and Game's stream alteration agreement to the Executive Director. If the CDFG stream alteration agreement is for less than five years, the permittee must acquire and submit subsequent CDFG stream alteration agreements or letters of permission for the remaining years of this permit, prior to commencement of construction of the sandbar during subsequent years.

3. ARTIFICIAL BREACHING

This permit amendment does not allow for artificial breaching of the lagoon system. Any future artificial breaching will require submittal of a subsequent coastal permit amendment in a timely fashion (not less than three months prior to the proposed breaching) to allow adequate time for processing. The amendment application shall incorporate the recommendations of the California Department of Fish and Game and National Marine Fisheries Service regarding artificial breaching. The amendment application shall detail the specifics of how and when the proposed breaching will be carried out.



IV. RECOMMENDED FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. Project Background

The City of Capitola is requesting an amended permit for continuing implementation of the Soquel Creek Lagoon Management and Enhancement Plan, (John Stanley Associates, April 1990), including yearly formation of a sandbar across Soquel Creek in conjunction with an ongoing program to monitor and restore the natural creek system. The lagoon area is subject to saltwater inflow and remains within the original coastal permit jurisdiction of the Coastal Commission.

The Soquel Creek Management and Enhancement Plan (Management Plan) has developed a substantial database through ten years of monitoring and analysis. The California Department of Fish and Game (CDFG) has worked with the City of Capitola and their consultants to determine the major corrective steps to maintain the best estuarine lagoon environment. Over the course of developing the plan, the City undertook installation of facilities and implementation of procedures to protect the environment pending adoption of the final plan. Since adoption of the plan, the City has continued regular biological monitoring of the creek with submittal of yearly biological monitoring reports.

An original assumption of the base permit conditions was that a "final" Management Plan would be the subject of a permit. As monitoring continues, however, management techniques evolve to integrate the new information. Streams and lagoons are dynamic systems that are affected by a variety of factors, including droughts and storms. It has become clear that management of the creek will not be exactly the same each year. The City's Management Plan sets up general guidelines, which take into account the need for flexibility. The City works in conjunction with CDFG regarding lagoon formation and Management Plan activities. CDFG is preparing a draft project statement and conditions regarding this project, and plans to issue a long-term (five-year) stream alteration agreement. The Army Corps of Engineers (Corps) will issue a long-term (five-year) permit upon completion of a consultation with the National Marine Fisheries Service (NMFS).

For the above-stated reasons, the Commission finds that a long-term (five-year) amended permit, subject to Executive Director review of new information and any proposed modification of components and methods of operation and with appropriate monitoring protocols, is an appropriate procedural option. Any substantive revisions to the implementation during the term of the permit would require a further amendment. The term of the amended permit is five years, consistent with permits to be issued by CDFG and the Corps.

B. Proposed Development Activities

The following are the main development components of the Soquel Lagoon Management and Enhancement Plan:



- Lagoon formation. This entails the movement of approximately 3,500 cubic yards of beach sand to form a sandbar across the mouth of Soquel Creek.
- Removal of accumulated kelp and other detrital deposits from the lagoon bottom. All kelp, litter, and other detrital matter will be removed by hand.
- Diversion of outflow from the lagoon through the permanent flume structure on Capitola Beach.
- Installation of a temporary shroud on the inlet to the flume to promote the rapid conversion of the lagoon from saltwater to freshwater.
- Artificial lagoon breaching in the fall.
- Continued monitoring of aquatic habitat and water quality conditions in the lagoon.

C. Area Description

Soquel Creek drains one of the major watersheds of central Santa Cruz County. The Creek enters Monterey Bay at its northern rim. The City of Capitola (Exhibit 1) was founded at the creek's mouth in the 1870's and became California's first seaside resort. The City is now highly urbanized but retains its role as an important visitor serving recreation area and derives a major portion of its income from tourists.

The project area encompasses the lagoon and lowermost reaches of Soquel Creek, extending from the oceanfront inland approximately 3/4 mile near the intersection of Clares Street and Wharf Road. The upstream, northern boundary of the project area is the approximate limit for tidal influence on the creek (Exhibit 2). A significant riparian corridor extends inland, upstream of the project area. The lower lagoon area is bounded on the south by Capitola Beach and the sea, on the east by the town center and its Esplanade, and on the west by Capitola Wharf. Upstream, residential development lines both banks of the creek.

Under natural conditions and in a year of average rainfall, Soquel Creek flows into the sea well into the summer months. As the seasonal drought sets in, the creek's flow gradually decreases and a sand bar forms across its mouth, creating a natural lagoon. For many decades the City has artificially closed the creek mouth before the Memorial Day weekend. Depending on the magnitude of spring rainfall and runoff, the City's action typically precedes the development of a natural sandbar and lagoon closure by weeks or months. The creek's outflow from the lagoon is then diverted through a permanent flume structure (Exhibit 3).

The elevated river level forms a lagoon for recreational uses and in the fall supports the City's Begonia Festival, an annual flower-float parade down the river. Resort accommodations and restaurants front the lagoon. A small paddleboat concession usually operates during the summer



months. In addition, individuals bring kayaks and small sailboats for use in the lagoon and the lower reaches of Soquel Creek. Because of the City's lagoon closure and maintenance activities, this recreational resource has been dependable for many years.

D. Permit History

Development within the lagoon watershed and along the creek had resulted in a gradual, cumulative deterioration of the water quality and quantity, resulting in a degraded estuarine and riparian corridor environment. In the early 1980's the California Department of Fish and Game (CDFG) became involved in regulating the City's stream alteration activities and began requiring 1601 Stream Alteration Agreements. In 1988 CDFG requested that the City develop a lagoon management plan that would protect the lagoon's wildlife and fisheries habitat. Previous lagoon management practices were deemed no longer appropriate. These included use of copper sulfate (toxic to fish) to reduce plant growth in the lagoon and the use of a bulldozer to clear out seagrass and kelp in the inundated area of the lagoon.

In 1989 the Coastal Commission asserted permit jurisdiction over activities involving closure of the lagoon and mechanized breaching. In February 1989 an emergency permit was issued that allowed for breaching of the sandbar to prevent flooding of the downtown. Conditions of that permit required that the City apply for a regular Coastal Permit (3-89-75) for permanent lagoon management, accompanied by environmental review pursuant to CEQA. Lagoon formation was permitted by the Commission under permit 3-90-41, pending completion of the Management Plan. The City adopted the Management Plan in July 1990. In 1993 permit amendment 3-90-41-A2 was issued. This long-term permit allowed for continued management of the Soquel Creek lagoon, consistent with the Soquel Creek Lagoon Management and Enhancement Plan. A condition of permit 3-90-41-A2 stated "upon completion of the final monitoring document the City shall submit their findings and proposals to the Commission as an amendment to the permit." Permit 3-90-41-A2 was to run concurrent with an aquatic monitoring program funded by the Coastal Conservancy, which was expected to end in 1995-96. Due to some budget savings, the state-assisted monitoring program was extended to 1997. Since then, the City has continued with artificial lagoon formation on an annual basis. The City has been working since 1998 to follow conditions and reapply for a coastal development permit, but has had difficulty because of changes in City staff and a lack of response from other resource agencies. The City has continued a regular monitoring program since 1997 and proposes to continue to do so. The City now wants to remedy the situation and is requesting a long-term permit for ongoing implementation of the Soquel Creek Management Plan, including lagoon formation.

E. Management Plan Concerns

Extensive urban development in the Soquel Creek watershed has had direct consequences for the Soquel Creek lagoon. In past years, summer flows decreased because of upstream appropriations and water quality had deteriorated. Concern for the lagoon's aquatic species as well as concerns for public health resulted in advisories and lagoon closures. The Management Plan identified five major management concerns:



- Artificial closure interfering with juvenile steelhead attempting to reach the ocean;
- Lagoon grading prior to closure creating poor water quality problems for tidewater goby, steelhead, and other fish species;
- Premature artificial breaching resulting in environmental problems for juvenile steelhead and tidewater goby using the lagoon;
- Use of chemicals toxic to fish and other aquatic fauna;
- High coliform bacterial counts causing closure of the lagoon to human body contact during the summer.

F. Management Plan Objectives

The objectives of the Management Plan included determination of the approximate date of steelhead migration and lagoon use and recommendations to enhance steelhead passage through the lagoon and to enhance the lagoon as summer rearing habitat. This included dates for breaching and closing the sandbar, methods for breaching the sandbar, flume and culvert design for fish passage and storm flows, and minimum flow rates to maintain optimum lagoon levels and to ensure lagoon access for young steelhead that attempt to migrate down to the lagoon for summer rearing. Other objectives included:

- Determining how and when to remove kelp from the lagoon;
- Control of excess amounts of algae and pondweed;
- Maintenance and enhancement of invertebrate species;
- Control of bacterial contamination;
- Improvement of riparian and wetland vegetation, including control of invasive non-native plant species;
- Protection and restoration of wildlife habitat, e.g. nesting habitat for birds and waterfowl;
- Protection and enhancement of lagoon aesthetics;
- Recommendations on compatible recreational uses of the lagoon.

G. Management Plan Successes

The Soquel Creek Management and Enhancement Plan was completed in 1990. Biological monitoring reports have been prepared annually since. A five-year summary report entitled "Summary Report Regarding Development, Implementation and Monitoring of the Soquel Creek Management and Enhancement Plan" was prepared in 1996 by the biological consulting firm of D. W. Alley and Associates. According to the findings in this summary report, the Management Plan's successes included:

- Improved water quality during and after sandbar construction:
 - Use of heavy equipment to remove kelp and seagrass from the lagoon prior to sandbar formation was replaced by hand raking, which greatly reduced water disturbance.
 - Lagoon margins were contoured above the inundation zone during sandbar construction, without disturbing the water.



- The use of copper sulfate (toxic to fish) to kill plant life in the lagoon was discontinued.
- Reduction of the frequency and extent of algal mats by reducing nutrient inputs:
 - Removal of plant material from the lagoon prior to sandbar construction.
 - Removal of non-native waterfowl.
 - Improved habitat for native waterfowl (which eat algae).
 - Reduction of bird feeding through the use of educational signs.
 - Sealing of storm drains and sidewalk vents leading to the lagoon from the Esplanade. (These are reopened after the sandbar breaches in the fall/winter).
 - Annual inspections of the plumbing of all restaurants on the Esplanade, with repair of any leaks prior to lagoon formation.
 - Lowering of water temperature by maintaining the lagoon at the highest level possible.
- Educational projects to familiarize the community with ecological aspects of the lagoon.
 - Placement of interpretive signs around the lagoon.
 - Placement of signs around the lagoon to discourage bird feeding.
 - Placement of signs along the lagoon path to encourage dog owners to clean up their dogs' excrement. Plastic bags provided for this purpose.
 - Construction of nest boxes by high school students, which were placed in the riparian forest.
 - Creation of a streamside care guide for streamside residents.
 - Creation of educational units for local schools.
 - Warning signs regarding dumping of material were painted directly on storm drains.

In addition to the above, the Management Plan has had benefits to steelhead. California Central Coast steelhead was listed as a threatened species on August 18, 1997. Steelhead is found in Soquel Creek. The Corps has initiated a consultation with the National Marine Fisheries Service as required by Section 7 of the Endangered Species Act. The "Summary Report Regarding Development, Implementation, and Monitoring of the Soquel Creek Lagoon Management and Enhancement Plan, 1996" states that the absence of toxic copper sulfate allowed for healthy conditions for fishes. In addition, between 1992 and 1996 water temperature and oxygen levels were maintained within the physiological tolerance of steelhead. This was made possible by maximizing lagoon depth and reducing nutrient inputs sufficiently to prevent plant production to the point of nighttime oxygen depletion. Also, the flume allows for the migration of steelhead smolts to the ocean. Capitola is one of the few cities on the California coast to use a flume on an urban creek to protect its fisheries. Furthermore, the reduction of salinity levels in the lagoon through the use of the shroud is considered to be a major beneficial impact to steelhead. The 1999 Monitoring Report states that passage for steelhead smolts was excellent during the out-migration season in 1999. The estimated steelhead population for fall 1999 was 928 juveniles +/- 55.

The City has also undertaken site by site inspection to identify septic system and sewer line leaks that could be impacting water quality and has evaluated water consumption of upstream users. Many of the impacts are the result of larger watershed activities outside the City's jurisdiction. The City has asked Santa Cruz County to review impacts in their jurisdiction.



H. Remaining Management Plan Challenges and Options

A review of the annual monitoring reports reveals some remaining management challenges. Fecal coliform counts have not been sufficiently reduced to allow swimming in the lagoon. Some important management recommendations have yet to be implemented to reduce inputs of fecal coliform bacteria. These include:

- Additional modification and redirection of storm drains, especially upstream at Noble Gulch.
- Installation of closely spaced wires on rooftops of Esplanade restaurants to discourage gulls roosting.
- Enclosure of the railroad trestle's infrastructure to prevent pigeon roosting.

According to the City's Assistant Public Works Director, it is not physically possible to redirect storm drains in the Noble Gulch area away from the lagoon. However, the City does require the installation and maintenance of silt and grease traps within surrounding storm drains.

Gulls use the entire roofs of Esplanade restaurants as roosting areas. Therefore, closely spaced wires would need to be installed over the entire roofs, which would make maintenance work extremely difficult. The "Soquel Creek Lagoon Monitoring Report, 1999," however, recommends that "Gull Sweeps" be installed on Esplanade roofs to test their effectiveness in deterring gulls. According to the catalog, "Powered by the slightest breeze, the Gull Sweep's motion will deter the most determined bird." The City may wish to consider suggesting this to owners of the various Esplanade restaurants.

The City contacted the Southern Pacific Railroad (SPRR) regarding enclosing the railroad trestle's infrastructure to decrease fecal contamination of Soquel Creek from roosting pigeons. Unfortunately, the SPPR was not receptive to this suggestion.

In addition, the "Soquel Creek Lagoon Monitoring Report, 1999" recommends repair of the cracked flume to protect the flume's integrity. Also, the report recommends installation of a louver system, which will allow for easy maintenance of lagoon level in the summer, thus preventing the lagoon level from fluctuating into the "poor" range, which happens occasionally with the current flashboard system. The City has potential funding to repair the flume and install a louver device, but the funding will probably not be available this year. The City also will install a locking system on the flume to prevent vandalism, which occurred in 1995 and 1996 and caused partial draining of the lagoon.

Regarding the tidewater goby, which is listed as an endangered species: the species' numbers have become severely reduced in many small lagoons along the California coast. No tidewater gobies were found in lower Soquel lagoon in 1998, 1999, or 2000. The last capture of a tidewater goby in Soquel Creek was in the fall of 1997. According to the consulting biologist, there were likely few, if



any, tidewater gobies in Soquel Creek after the torrential storm flows storm flows of the winter of 1997-98 because the channel lacks sheltered backwaters for fish to escape high water velocity during high storm flows (Exhibit 4). Because of the lack of backwater areas in Soquel Creek Lagoon, it is not expected that tidewater goby densities would increase except during drought periods. The biologist also states that tidewater gobies were re-discovered in nearby Aptos Creek Lagoon in 1999, indicating that the species could re-colonize Soquel Creek Lagoon.

I. Coastal Act Issues

1. Marine Environment

Section 30231 of the Coastal Act states:

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

Section 30233 of the Coastal Act states, in part:

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

...(7) Restoration purposes.

Section 30236.

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Section 30107.5.



"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Section 30240.

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

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

Soquel Creek is one of the important riparian resources of Santa Cruz County. Vegetation in the stream corridor remains relatively intact, making it one of only three watersheds in the county with remaining wildlife habitat of this extent. Although clearing, filling, and invasion by non-native species has diminished the size, diversity, and wildlife value of the riparian zone, it remains important as one of the few relatively undisturbed stream corridors connecting the mountains to the sea. Raccoon and deer are among the resident wildlife found along the creek. Migratory wildlife benefiting from the creek environment includes the Monarch butterfly, which spends the winter in a grove adjacent to the lagoon near the lagoon's upper limits.

The lagoon, while narrow and shallow, provides significant habitat for migratory waterfowl, fish, and invertebrates. It is a particularly important environment for anadromous steelhead since fingerlings use the lagoon as a nursery during the summer months. The fish gain size and stamina there, enabling them to survive at sea once their out-migration occurs. In the past, the lagoon has been important habitat for the tidewater goby, a listed species under the federal Endangered Species Act. The lagoon also supports several invertebrate species. Various ducks, grebes, gulls, sandpipers, and herons are among the birds commonly observed at the lagoon during the winter migratory season.

Because of the significance and sensitivity of the stream habitat, Soquel Creek is identified as an environmentally sensitive habitat where habitat values must be protected from disruption and only uses dependent upon the resource allowed, as specified in Section 30240 of the Coastal Act. Additionally, Section 30231 of the Coastal Act requires the maintenance and restoration of the biological productivity and quality of coastal streams to maintain optimum populations of marine organisms and to protect human health. Sections 30231, 30233, 30236 and 30240 strictly protect marine resources. Very limited and specialized developments are permitted in streams and wetlands.



Over the decades the City's closure of the stream has been for the purpose of recreational use of the lagoon. Though enhanced recreational activities are a goal of the Coastal Act, the protection and restoration of natural habitat resources is one of greater priority. At first glance, the City's proposal to close the lagoon for use as a recreational lagoon would not appear to be permitted under the strict policies of the Coastal Act. However, the Commission has previously found the restoration component of the Management Plan to be consistent with the marine environment policies of the Coastal Act.

Lagoon Formation: Coastal Act Section 30236 allows alteration of streams which incorporate the best mitigation measures feasible for developments where the primary function is the improvement of fish and wildlife habitat. Coastal Act Section 30233 allows the filling of wetlands for restoration purposes where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects. According to Section 30240, in environmentally sensitive habitat areas only uses dependent on such resources shall be allowed within such areas. According to these policies the artificial closure of the lagoon for recreational use alone would not be acceptable. However, natural sandbar formation and an unmanaged lagoon no longer provide the best aquatic environment. Prior to development of the Management Plan, the procedures involved in lagoon formation often caused water quality problems, which negatively affected fish and other aquatic life. Management Plan procedures require that no heavy equipment operate in the flowing stream except the minimal amount required to close the creek mouth. In addition, the use of heavy equipment to push kelp and seagrass from the lagoon has been replaced by manual raking of the plant material out of the lagoon. Water disturbance is much reduced by low-impact raking, which contributes to improved water quality beneficial for fish survival. In addition, in their five-year agreement, CDFG has indicated that it will impose a number of conditions on lagoon formation regarding kelp removal, timing of closure, and grading. CDFG is also expected to require the City to continue hiring a qualified biological consultant to monitor lagoon formation. Through formulation and implementation of the Management Plan, significant lagoon restoration and protection has been achieved. Thus, as conditioned for CDFG approval, the formation of the sandbar to create the lagoon is consistent with Sections 30233, 30236, and 30240 of the Coastal Act.

Water Quality: Section 30231 of the Coastal Act states that the quality of coastal waters shall be maintained and restored where feasible. Soquel Creek lagoon's water quality has generally improved since implementation of the Management Plan. However, fecal coliform counts have not been sufficiently reduced to allow swimming in the lagoon. As stated above in Section H, the 1999 monitoring report suggested a number of recommendations that have not yet been implemented. Several of these recommendations are not feasible, as stated in Section H. Also, as stated in Section F, the City has implemented a number of measures that have improved water quality. The City has taken some steps to reduce the amount of fecal input into the lagoon, including the removal of non-native waterfowl. However, gulls are a primary source of pollution, both for bio-stimulating nutrients and bacteria. They forage through human refuse left on the beach; they bathe in the lagoon; they roost on the buildings surrounding the lagoon. It is likely that the gull population is artificially high because of the artificial food source and artificial roosting areas. The 1999 monitoring report



suggests replacing the open lid-less refuse cans on the beach with cans that have gull-proof lids that are convenient to use. The monitoring report also recommends use of enough refuse cans to satisfy the demand for refuse disposal. In addition, as discussed in Section H, the monitoring report recommends that "Gull Sweeps" be installed on the Esplanade roofs to test their effectiveness in deterring gulls. The City has not acted on these recommendations. Therefore, the continued implementation of the Management Plan is not entirely consistent with Coastal Act policy 30231 regarding the water quality of coastal streams. Condition #1b requires that annual monitoring continue and that future monitoring reports detail all previously made recommendations regarding water quality and whether or not these recommendations have been implemented. If recommendations have not been implemented, the monitoring report must state the reasons why and suggest alternative ways of addressing remaining water quality problems. Also, condition #1a limits the term of the permit to five years, to give the Commission an opportunity to review progress in achieving water quality goals. As so conditioned, the project is consistent with Section 30231 of the Coastal Act.

Flume Management: Section 30231 of the Coastal Act states that the bio-productivity and quality of coastal waters shall be maintained in order to achieve optimum populations of marine organisms. Section 30236 of the Coastal Act states that alterations of streams shall incorporate the best mitigation measures feasible and be limited to developments where the primary function is improvement of fish and wildlife habitat. The existing flume is adequate to allow fish passage and the lagoon itself can sustain fish that do not use the flume. CDFG conditions are expected to require that sufficient water depth be maintained in the culvert through June 30th to allow for out-migration of steelhead smolts. In addition, CDFG is expected to impose several conditions to maximize lagoon depth and to require daily monitoring of lagoon levels. CDFG is also expected to require that the City hire a qualified fisheries biologist to monitor lagoon water quality throughout the summer.

Lagoons are most productive in the summer after the mouth has closed and freshwater inflows have displaced residual saltwater or when the water column is a well-mixed combination of salt and freshwater, typically in the winter months when the river mouth is open to tidal circulation. The lagoon habitat is not productive if it is stratified with a denser layer of saltwater underlying a less-dense layer of freshwater. Stratified conditions can also result in poor dissolved oxygen levels in bottom waters, which degrades or destroys habitat for steelhead and their food. The City of Capitola successfully accelerates the conversion of Soquel Creek to freshwater with the installation of a shroud device and thus has improved the aquatic environment. The shroud is manually bolted to the flume and draws the heavier saltwater from the bottom of the lagoon and accelerates the conversion to freshwater. The shroud has been reviewed by a CDFG engineer and must be installed as a condition of their agreement.

The use of the shroud, the management of the flume regarding fish passage, and the maintenance of water depths sufficient for fish habitat have contributed to improved fish habitat. Therefore, as conditioned for CDFG approval, the City's management of the flume is consistent with the marine environment policies of the Coastal Act.



Artificial Breaching: Coastal Act Section 30236 allows for flood control projects as necessary for public safety or to protect existing development. Natural breaching of the sandbar could cause flooding of the commercial and residential development of Capitola Village. Historically, the City artificially breached the sandbar in September after the Begonia Festival. Early breaching, however, eliminates most steelhead rearing habitat and possibly kills many juvenile steelhead by flushing them into the bay before they are ready to adapt to saltwater. The Management Plan contains a number of recommendations regarding fall breaching of the sandbar. CDFG is expected to require a number of conditions regarding breaching, including trying to maintain sandbar integrity until approximately Thanksgiving and monitoring of sandbar breaching by a qualified fisheries biologist. Prior Commission permits have not allowed for breaching of the lagoon system but instead required separate coastal development permits. Currently the Corps is consulting with NMFS regarding continued implementation of the Management Plan, including conditions for artificial breaching. Because this consultation is not complete, this portion of the Management Plan is not yet entirely consistent with Coastal Act policy 30236 regarding flood control projects. Thus, as stated in condition #3, this permit does not allow for artificial breaching. Any future breaching will require submittal of an amendment to the Commission. At that time, breaching protocols will be established which adhere to the protocols of NMFS and CDFG. As so conditioned, the project is consistent with Coastal Act Section 30236.

2. Public Access

Coastal Act policy 30211 states:

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

The project site is located between the first public road and the sea. Pursuant to Section 30211, development shall not interfere with the public's right of access to the sea where acquired through use. Lagoon formation is the only element of the Management Plan that has a potential adverse effect on public access. Lagoon formation will cause a temporary limited disturbance to a small portion of Capitola Beach, but the remainder of the beach will be available to the public during this process. Once lagoon formation is complete, further Management Plan implementation causes no further adverse impacts to public access of the beach. Therefore, the proposed development is consistent with the access policies of the Coastal Act.

3. Recreation

Section 30220 of the Coastal Act states:

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

Section 30224 of the Coastal Act states:



Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.

The project results in formation of a lagoon that enlarges a small-scale waterway and diversifies the water-oriented activities of the Capitola Beach area. The value of the lagoon as a recreational resource is the reason the City has historically constructed the sand barrier earlier in the year than it might naturally occur. A small paddleboat concession operates during most summers, allowing the public to paddle around the enlarged lagoon. The elevated water level also allows use of the lagoon for the annual historic Begonia Festival, a water-borne float parade, in the late summer. The restaurants that line the lower south side of Soquel Creek provide their visitors outdoor seating adjacent to the lagoon. The lagoon provides for increased recreational boating and enhances water-oriented recreational activities and is, therefore, consistent with the recreation policies of the Coastal Act.

J. Other Jurisdictions

The final project may be clarified or altered depending on the results of reviews by other agencies. The jurisdictions of the following agencies specifically relate to Coastal Commission actions:

State Lands Commission: A portion of the tide and submerged lands located at the mouth of Soquel Creek and waterward of the mean high tide line, over which the proposed project extends, are sovereign lands of the State of California that the Legislature granted in trust to the City of Capitola pursuant to Chapter 687, Statutes of 1935, and as subsequently amended. In 1989 the City received a letter acknowledging the grant but preserving the State Lands Commission's rights (Exhibit 6). A State Lands staff member indicates that the previous letter of 1989 is still valid (Frank Singer, personal communication 3/15/01) and that a long-term permit is acceptable. Only if substantive changes in the program were proposed would it be necessary for the State Lands Commission to review the project against the terms of the grant. Condition #1a provides that substantive change in location or methodology would require further contact with the State Lands Commission.

California Department of Fish and Game: The CDFG worked closely with the City of Capitola in developing the Management Plan. The City consults with CDFG several days prior to sandbar construction. CDFG writes a fairly specific 1601 Stream Alteration Agreement prior to any alteration of the Creek mouth. CDFG is in the process of completing a draft project statement and conditions regarding granting a five-year 1601 stream alteration permit. Condition #2b requires submittal of a copy of the long-term stream alteration permit to the Executive Director for review. Condition #1b requires that the monitoring program adhere to all the requirements of CDFG.

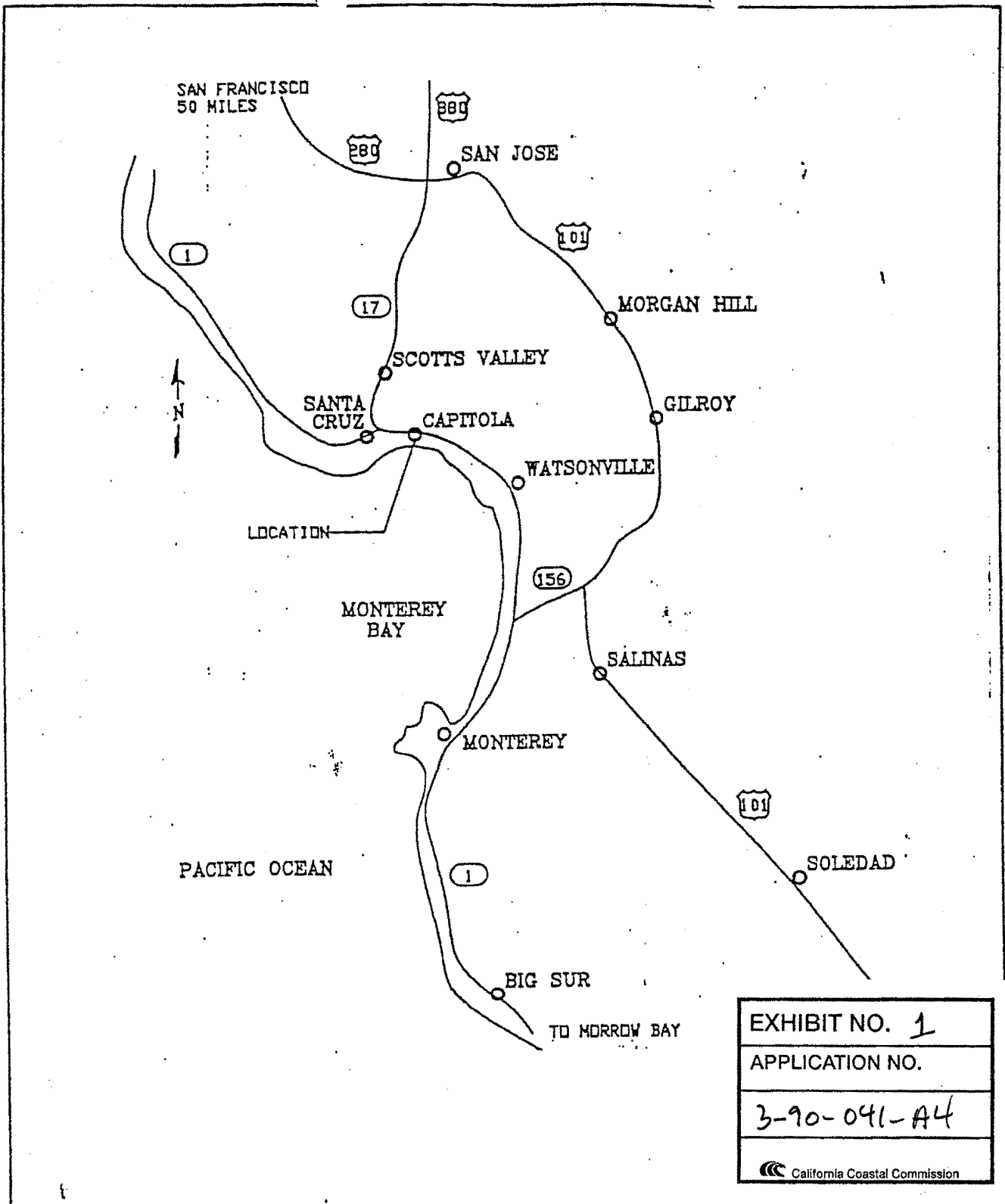


U. S. Army Corps of Engineers (Corps), Regional Water Quality Board, U. S. Fish & Wildlife Service, and National Marine Fisheries Service (NMFS): The City of Capitola has applied for renewal of the Corps permit for annual construction of a sand berm across the mouth of Soquel Creek. The City has provided the Corps with evidence that it has submitted a valid request for State water quality certification. No Corps permit will be granted until the City obtains the required certification or waiver. The Corps has previously conducted a consultation with the U. S. Fish and Wildlife Service (USF&W) under Section 7 of the Endangered Species Act regarding the impacts of the project on the tidewater goby. USF&W issued a biological opinion in 1996 stating that the project would not jeopardize the tidewater goby (Exhibit 7). In addition, the Corps has initiated a consultation with the National Marine Fisheries Service (NMFS) regarding steelhead in Soquel Creek. This consultation must be completed satisfactorily before the Corps can issue their permit, which will be a long-term five-year permit (personal communication Bob Smith 3/15/01). Condition #2a requires that prior to commencement of construction, the City must submit a copy of Corps permit (including a copy of the NMFS consultation), or letter of permission, or evidence that no Corps permit is necessary. The Corps documentation must address the time frame of their permit. If no long-term permit is issued, the permittee must yearly acquire the Corps permit or letter of permission and submit a copy of the permit prior to commencement of construction. Condition #1b requires that the monitoring program adhere to all the requirements of the Corps and NMFS.

K. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of 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 which would substantially lessen any significant adverse effect that the activity may have on the environment. The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary for Resources as being the functional equivalent of environmental review under CEQA. Accordingly, the Commission finds that as conditioned the proposed project will not have significant adverse effects on the environment within the meaning of CEQA; that there are no feasible alternatives that would significantly reduce any potential adverse effects; and, accordingly, the proposal, as conditioned is in conformance with CEQA requirements.





PURPOSE: ANNUAL LAGOON CLOSURE
& BEACH GRADING PER
SOQUEL CREEK MANAGEMENT
PLAN.

DATUM: NGVD

ADJACENT PROPERTY OWNERS:

- ① MICHAEL R. DELAGNES
- ② BEGDIA OCEANSIDE PROPERTIES
- ③ JOSEPH ORLANDO
- ④ JOSEPH EALY
- ⑤ VENETIAN COURT HOMEOWNERS ASSOCIATION

LOCATION MAP

CITY OF CAPITOLA
420 CAPITOLA AVENUE
CAPITOLA CA 95010

CAPITOLA BEACH GRADING PLAN

IN: CAPITOLA BEACH/SOQUEL CREEK
AT: MONTEREY BAY
COUNTY OF: SANTA CRUZ STATE: CA
APPLICATION BY: CITY OF CAPITOLA

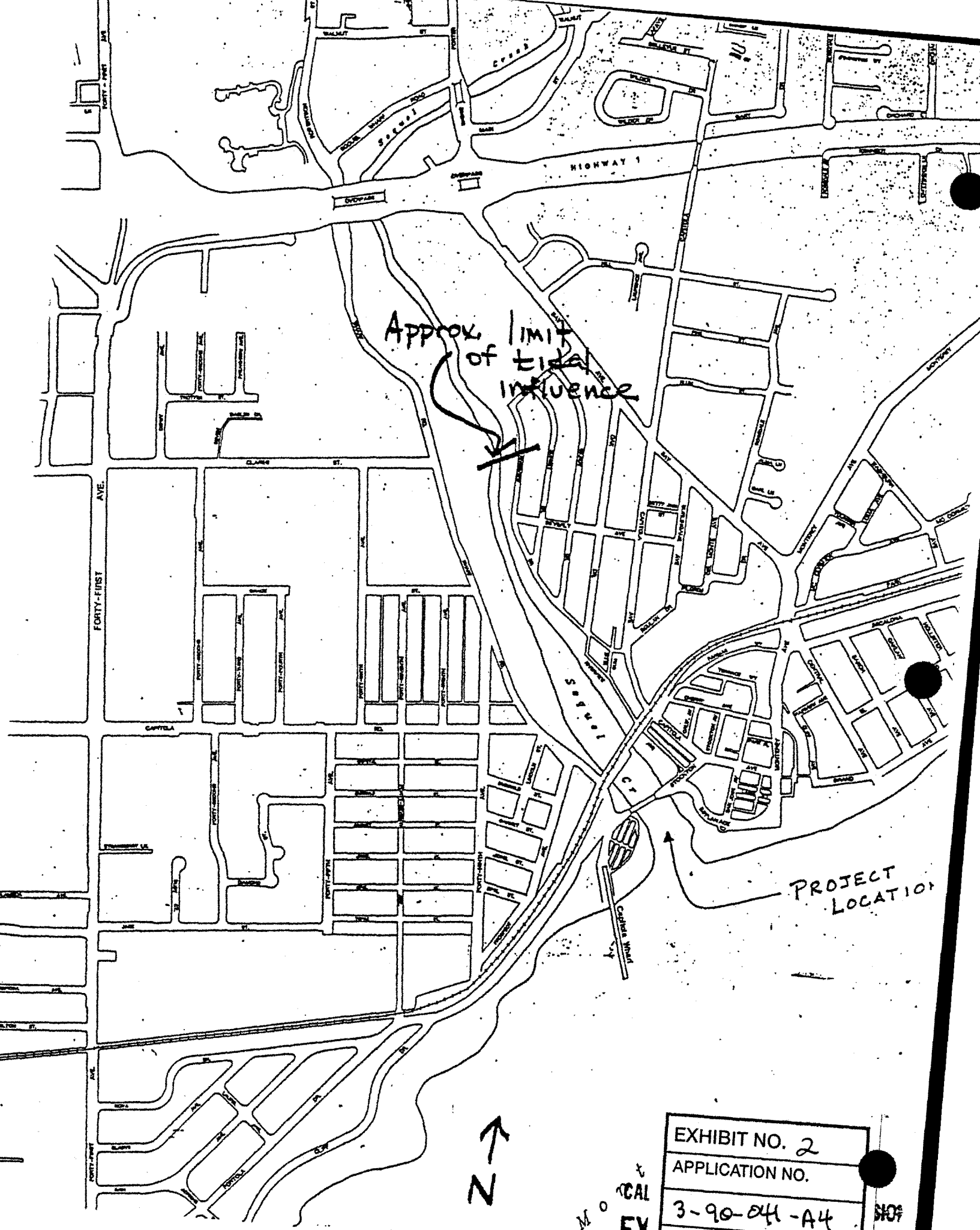
SHEET 1 OF 1 DATE: 5-16-94

EXHIBIT NO. 1

APPLICATION NO.

3-90-041-A4

California Coastal Commission



Approx. limit
of tidal
influence

PROJECT
LOCATION

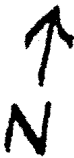


EXHIBIT NO. 2
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California Coastal Commission

LOCAL
EX

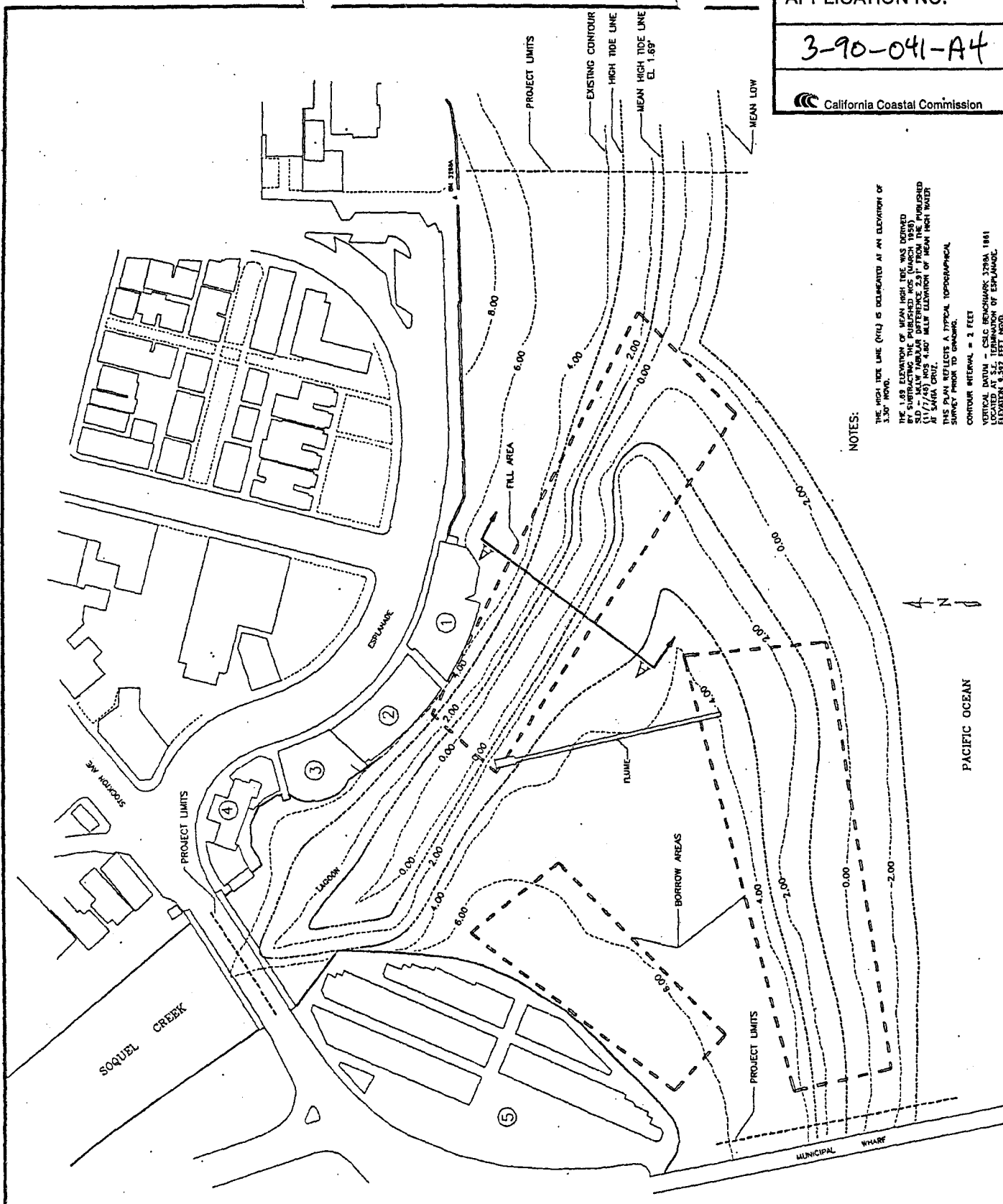
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EXHIBIT NO. 3

APPLICATION NO.

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California Coastal Commission



NOTES:

THE HIGH TIDE LINE (HTL) IS DELINEATED AT AN ELEVATION OF 3.30' MHW.

THE LAB ELEVATION OF MEAN HIGH TIDE WAS DERIVED BY SUBTRACTING THE PUBLISHED NOS (MARCH 1983) SLIP - MEAN TIDAL DIFFERENCE 2.91' FROM THE PUBLISHED AT SANTA CRUZ 4.30' MEAN ELEVATION OF MEAN HIGH TIDE. THIS PLAN REFLECTS A TYPICAL TOPOGRAPHICAL SURVEY PRIOR TO GRADING.

CONTOUR INTERVAL = 2 FEET

VERTICAL DATUM: C&G BENCHMARKS: 329A, 1981 ELEVATION 9.532 FEET MHW.

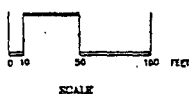
PURPOSE: ANNUAL LAGOON CLOSURE & BEACH GRADING PER SOQUEL CREEK MANAGEMENT PLAN.

DATUM: NGVD

ADJACENT PROPERTY OWNERS:

- ① MICHAEL R. DELAGNES
- ② BEGONIA OCEANSIDE PROPERTIES
- ③ JOSEPH ORLANDO
- ④ JOSEPH EALY
- ⑤ VENETIAN COURT HOMEOWNERS ASSOCIATION

PLAN VIEW



CITY OF CAPITOLA
420 CAPITOLA AVENUE
CAPITOLA CA 95010

CAPITOLA BEACH GRADING PLAN
EXISTING SITE TOPOGRAPHY

IN: CAPITOLA BEACH/SOQUEL CREEK
AT: MONTEREY BAY
COUNTY OF: SANTA CRUZ STATE: CA
APPLICATION BY: CITY OF CAPITOLA

SHEET 2 OF 3 DATE: 04-01-94

Annual Report on Monitoring of Tidewater Goby Habitat in 1999
and Incidental Electrofishing of California Red-legged Frog
Along the Central Coast of California.

ENDANGERED SPECIES PERMIT NUMBER PRT-793645 FOR TIDEWATER GOBY
(EUCYCLOGOBIUS NEWBERRYI) AND CALIFORNIA RED-LEGGED FROG (RANA
AURORA DRAYTONII)

Introduction

The tidewater goby (Eucyclogobius newberryi) is listed as a Threatened species. This species' numbers have become severely reduced in many small lagoons along the California coast. I have been hired by certain public agencies to determine the presence/absence of tidewater gobies in specific locales along the central coast. This monitoring will be used as a basis to assess the status of tidewater goby in those locations and provide information related to protection of this species habitat. As we electrofish coastal watersheds for steelhead, we have captured California red-legged frog (Rana aurora draytonii) in the past in San Simeon and Santa Rosa creeks. This species is listed as Threatened by the U.S. Fish and Wildlife Service along the central California coast.

METHODS

In lagoons and lower reaches of streams where the status of tidewater goby was ascertained, a 1/8-inch fine meshed seine was used to sample for tidewater gobies. Captured fish were temporarily held in a live car until they could be identified and counted. When tidewater gobies were captured, they were counted and returned to their habitat. If they were rescued from a construction zone, they were relocated upstream out of harms way. During electrofishing, at least 3 passes are made in each habitat type. If California red-legged frogs are captured, they are placed in an enclosed tupperware container with water until the habitat has been sampled for salmonids. After electrofishing is complete, the frogs are placed back in the same habitat from which they were captured.

RESULTS- Soquel Creek Lagoon

Monitoring of Soquel Creek Lagoon, Santa Cruz County, 2000

On 5 June, 2000, Ed Morrison of the City of Capitola Public Works Department assisted Don Alley in making 5 seine hauls in the lateral channel leading southeast from the main estuary across the beach and 10 seine hauls around the periphery of the estuary below the Stockton Avenue Bridge. Streamflow was estimated at 10 cubic feet per second (cfs). We decided again this year to have the lateral channel blocked off from the main estuary with a sand berm prior to fish rescue because streamflow was too great to allow effective seining. The lateral channel was allowed to partially dewater before seining began. The entire lateral channel was seined. The fish captured in the lateral channel included 17 juvenile staghorn sculpins (Leptocottus armatus), 2 threespine sticklebacks (Gasterosteus aculeatus) and one juvenile starry flounder (Platichthys stellatus). Along the Venetian Court side of the estuary, 26 juvenile staghorn sculpins, 13 juvenile prickly sculpins (Cottus asper), 6 juvenile starry flounders and 2 small, silvery, smelt-like, young-of-the-year larval fish were captured. No tidewater goby (Eucyclogobius newberryi) were detected. The unidentified larval fishes were definitely not tidewater gobies, based on their silver side coloration and lateral eye positions. They may have been young cyprinids. The diversity of fish species and fish density in the lower 2000 estuary were more than the previous year, when only staghorn sculpins were detected with the silvery larvae.

Fishes were placed in a water-filled bucket after each seine haul. All captured fish were relocated upstream in a deep area created by the west bridge pier of Stockton Avenue. The lateral channel was observed during the dewatering. No more fish were seen.

If tidewater goby had been found, they would have been transported even further upstream where cover existed. It was concluded that tidewater goby were absent from the lower lagoon area in early June, 1999. No tidewater gobies had been captured

in the lower lagoon the previous two falls, 1998 and 1999. The last capture of tidewater goby was in fall, 1997.

As required in the permit, the fisheries biologist, Don Alley, was present during all activities that could affect the fish habitat in the lagoon/estuary. This was the tenth year of monitoring and his assisting in activities associated with sandbar construction at Soquel Creek Lagoon. Reports for the first 9 years are available from the Capitola Public Works Department (Alley 1991-99). As stated in the Soquel Lagoon Management and Enhancement Plan (1990), all instream removal of kelp, sea grass and other organic debris was to be accomplished without the use of heavy equipment in the stream channel except within 25 feet of the flume. The area adjacent to the flume could be traveled by the bulldozer.

CONCLUSIONS- Soquel Creek Lagoon

Effects of Sandbar Construction on Tidewater Gobies in 2000

It did not appear that tidewater gobies used the lower estuary in early June, 2000. If they were present in the estuary, it was likely that they used habitat upstream of the construction area, where there was less tidal fluctuation and salinity. No mortality of tidewater goby was observed during the construction activities. However, artificial water level fluctuations were created during sandbar construction activities. The estuary receded after the lateral channel was blocked and the new channel was constructed. This would require tidewater gobies to retreat to deeper water as water surface receded in the upper estuary. There were likely few, if any, tidewater gobies in Soquel Creek after the past torrential stormflows of the 1997-98 winter. The channel lacks sheltered backwaters for fish to escape high water velocity during high stormflows.

The seasonal effect of removing organic material and constructing the sandbar is to create cooler, freshwater conditions with reduced potential for eutrophication and biological oxygen demand. Kelp removal and sandbar closure create better fish

habitat for tidewater goby and steelhead (*Oncorhynchus mykiss*) than if the sandbar was allowed to close naturally. Natural closure would allow considerable kelp and sea grass to become trapped in the lagoon to decompose. Saltwater would also be trapped to create an unmixed, anoxic lagoon bottom, which would collect heat and raise lagoon temperature. The naturally formed sandbar would be lower in stature, allowing more tidal overwash of saltwater during especially high tides, further elevating water temperature and making it less hospitable for steelhead.

Recommendations- Soquel Creek Lagoon

We again recommend that the sandbar closure be continued in late May (or early June) with use of the outlet flume to flush saltwater out of the lagoon. Although rain was not a problem during sandbar construction in 2000, we recommend that the City of Capitola remain flexible on the timing of construction activities. If rain is forecasted within two days after the intended starting date for sandbar construction, make the decision to postpone the activity until clear weather is again forecasted. Use of the flume will prevent saltwater incursion during the low flow months and will allow steelhead smolt passage until July 1. No heavy equipment should be allowed in the water of the lagoon/estuary during sandbar closure. Seining for tidewater goby in the vicinity of sandbar construction should occur before movement of sand, with upstream relocation of captured gobies. Late spring storms in 1995 and 1996 caused complications and delays in sandbar construction.

We recommend that the previously developed management plan and recommendations made in ensuing monitoring reports continue to be followed (Habitat Restoration Group 1990). Those would include continued inspection of sewage pipes under restaurants adjacent to the lagoon and capping of all storm drains leading to the lagoon during summer months.

Additionally, we recommend that the City of Capitola better secure the boards that fit into the flume entrance so that vandals may not raise the boards and nearly drain the lagoon as


occurred in 1995. We had a partial draining again in October, 1997, which was detected during sampling activities. The City has agreed to do this.

As stated in the 1994 report, we cannot recommend re-establishment of backwater areas in the existing urban setting. Such activities would damage private property because the bulkheads and land adjacent to the creek would require removal. Unless new bulkheads were re-constructed afterwards, creekside property would be placed in greater jeopardy from flooding.

Because of the lack of backwater areas in Soquel Creek Lagoon, we do not expect tidewater goby densities to increase except during drought periods. Then when more normal rainfall years followed, densities would be expected to become severely reduced again. Although rain was not a problem during sandbar construction in 2000, we recommend that the City of Capitola remains flexible on the timing of construction activities. If rain is forecasted within two days after the intended starting date for sandbar construction, make the decision to postpone the activity until clear weather is again forecasted.

It is best to minimize the number of days required to stockpile sand, rake out the decomposing organic material and prepare the flume inlet for fish passage. This will minimize the number of instances of artificial fluctuation of lagoon water level. Gathering of a maximum number of personnel to rake out the decomposing kelp and clear the flume, will minimize the days needed to secure the lagoon for summer. In 2000, two artificial sandbar openings and closings on successive days were required before the lagoon was closed permanently for the remaining summer. The need to excavate the Venetian Court side of the lagoon to create a deeper lagoon on that side required a three-day closure. This excavation probably had a net positive effect because it increased fish habitat and encouraged a cooler lagoon than if none had been done.

Status of the Tidewater Gobies in Soquel Creek Lagoon

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No capture of a tidewater goby in 1998-2000 indicated that only a small population of tidewater goby may be present in Soquel Creek Lagoon, if it has not been extirpated. Only one individual was captured in fall, 1997 (Alley 1998). The heavy winter stormflow of 1997-98 probably resulted in severe reduction in tidewater goby numbers. However, tidewater gobies were re-discovered in the adjacent Aptos Creek Lagoon in 1999, indicating that they could re-colonize Soquel Creek Lagoon. At least one adjacent lagoon up the coast has this species (Corcoran) from which re-population of Soquel Lagoon may be possible after heavy winter stormflow.

Future Activities at Soquel Creek Lagoon

Conditions of the Army Corps permit include rescuing of any tidewater gobies present in the lower lagoon and relocation upstream during sandbar closure. The sandbar closure will continue to be monitored by a fishery biologist, myself as far as I know. Monitoring of water quality through the summer and during the Begonia Festival will continue. Fish sampling will occur each fall to monitor tidewater goby populations. The past sampling efforts have been primarily possible with volunteer help from those curious about tidewater goby and steelhead densities.

RESULTS- Santa Rosa Creek Lagoon

Monitoring of Santa Rosa Creek Lagoon, San Luis Obispo County, 2000

Tidewater goby were present, but uncommon, when sampled in the Santa Rosa Creek Lagoon on 12 July 2000. The sandbar was closed. Five seine hauls were made with the goby seine from the Moonstone Drive end of the lagoon up to Shamel Park, yielding only 10 tidewater gobies, which was similarly low compared to 1998 when 15 gobies were captured in 10 seine hauls and less than the 87 captured in 1999 with 10 seine hauls. Captured tidewater gobies ranged between 32 and 40 mm Standard Length. There were no tidewater goby mortalities. Other species captured in the lagoon included prickly sculpin (Cottus asper), staghorn sculpin and

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natural resources as outlined by CDFG and to enhance these resources in line with the intentions of the Coastal Conservancy. Great care was taken, as well, to address the aesthetic and recreational concerns of the City.

D. Summary of Adopted Recommendations

All of the adopted recommendations are contained in sections V. and VI. of the Plan with associated background information to explain the rationale for them. They address procedures and timing for sandbar construction in the week prior to Memorial Day and sandbar breaching in November after the wet season has begun. Guidelines assure that a minimum of saltwater is trapped in the lagoon and a fish gate structure aides in freshwater conversion and fish access to the ocean until July 1. Sandbar breaching is intended to be delayed until after the first fall storms, at a time when baseflow in Soquel Creek is sufficient to create a constant plume of brackish water in the Bay and prevent sandbar formation after breaching. Summertime lagoon levels are intended to be maintained with monitoring to inform the Soquel Creek water master when lagoon inflows become critically low for steelhead access from upstream.

Recommendations are designed to maintain healthy levels of oxygen, water temperature and aquatic plant growth for fishes, minimizing storm runoff of toxic petroleum residues and reducing coliform bacterial levels sufficiently to permit swimming. Methods are provided to reduce algae for aesthetic enhancement and the Begonia Festival along with clean-up afterwards.

Other recommendations for lagoon enhancement involve wildlife enhancement for wild, native waterbirds by removal of domestic geese and ducks, cessation of bird-feeding at the restaurants and access points around the lagoon, restriction of roosting sites for gulls and rock doves (pigeons) on the railroad trestle and Esplanade roofs, placement of nest boxes and enhancement of native riparian vegetation. Eradication of non-native vegetation and revegetation with native riparian vegetation are recommended. An education program has been recommended and designed to provide

interpretive signs around the lagoon and within the Rispin Mansion to inform visitors about the animals and plants that exist at the lagoon. Lesson plans are recommended for teachers to incorporate lagoon experiences into their science curriculum. A pamphlet is recommended for residents regarding revegetation with native plants and enhancement of wildlife habitat.

The intention of the City and the Plan developers was to enhance the lagoon environment for fish, wildlife and native vegetation over past practices and natural extremes, with a desire to enhance recreation where it would not conflict with enhancement of these natural resources.



Paddleboats next to restaurants and beach.

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STATE OF CALIFORNIA
STATE LANDS COMMISSION
1807 13TH STREET
SACRAMENTO, CALIFORNIA 95814

GEORGE DEUKMEJIAN, Governor

May 10, 1989

File Ref: SD 89-04-24

California Coastal Commission
Attn: Ms. Joy Chase
640 Capitola Road
Santa Cruz, California 95062

RECEIVED

JUN -5 1989

Dear Ms. Chase:

Subject: Soquel Creek Lagoon

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST DISTRICT


The staff of the State Lands Commission has received your memo dated April 19, 1989, and attached drawing relative to the proposed permit application for activities related to the Soquel Creek Lagoon located in the City of Capitola.

A portion of the tide and submerged lands located at the mouth of Soquel Creek and waterward of the mean high tide line over which the proposed project may extend are sovereign lands of the State of California that the Legislature granted in trust to the City of Capitola pursuant to Chapter 687, Statutes of 1935, and as subsequently amended.

This action does not constitute, nor shall it be construed as, a waiver of any right, title, or interest by the State of California in any lands under its jurisdiction.

Please contact Nanci Smith, at (916) 322-7193, if you require additional assistance.

Very truly yours,


LESLIE H. GRIMES, Deputy Chief
Division of Land Management
and Conservation

cc: City of Capitola
Attn: Mr. Larry Perlin
420 Capitola Avenue
Capitola, CA 95010

78151

EXHIBIT NO. 6

APPLICATION NO.

3-90-041-A4

 California Coastal Commission



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Ventura Field Office
2493 Portola Road, Suite B
Ventura, California 93003

RECEIVED
APR 25 1996

March 27, 1996

Calvin C. Fong
Department of the Army
San Francisco District, Corps of Engineers
211 Main Street
San Francisco, California 94105-1905

Subject: Biological Opinion for the Issuance of a Permit for the Excavation and Placement of Fill into Soquel Creek in the City of Capitola, Santa Cruz County, California (Permit Number 20705S25) (1-8-96-F-19)

Dear Mr. Fong:

This biological opinion responds to your request for formal consultation with the U.S. Fish and Wildlife Service (Service) pursuant to section 7 of the Endangered Species Act of 1973, as amended (Act). Your request was dated December 6, 1995 and received by the Service on December 11, 1995. At issue are the impacts that the issuance of a permit, pursuant to section 404 of the Clean Water Act and section 10 of the Rivers and Harbors Act, for the proposed excavation and placement of fill into Soquel Creek to facilitate the construction of a temporary dam structure within the streambed of Soquel Creek in the City of Capitola, Santa Cruz County may have on the tidewater goby (*Eucyclogobius newberryi*), a federally listed endangered species.

This biological opinion was prepared using the following sources of information: your December 6, 1995 request for consultation, the Public Notice for the proposed project, informal discussions between our staffs, and the Service's files.

Consultation History

Informal consultation on the issuance of a section 404 permit for the excavation and placement of fill into Soquel Creek and its potential effects to tidewater gobies was initiated through a telephone conversation between the Corps and the Service on January 5, 1995. In that request, the Corps informed the Service of the proposed project and the status of tidewater gobies in the Soquel Creek Lagoon. The Corps requested the Service's attendance at a meeting with the Corps and the City of Capitola to discuss the project at the end of January, but the Service was unavailable to attend the meeting at that time.

Exhibit 7
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3-90-041-AY

BIOLOGICAL OPINION TIDEWATER GOBY

The public notice for the proposed project (number 20705S25) was issued on February 2, 1995 requiring a response by March 4, 1995. The Service did not provide comments at this time, but was contacted again by the Corps on June 1, 1995 to solicit Service input on the Soquel Lagoon closure. The Corps was concerned because tidewater gobies were found in the lower lagoon where the City of Capitola was proposing to rake out kelp and other organic debris to prevent oxygen depletion due to decomposition. The Service advised that consultation would be required if tidewater gobies might be taken during raking or closure. However, the severe winter storms likely washed any tidewater gobies from the lagoon and reduced the potential for take to where it was extremely improbable. The Service also recommended that the Corps require the City of Capitola to coordinate with the Corps and the Service to prepare and initiate formal consultation within the next six months since sandbar construction and kelp removal in future years may affect tidewater gobies. The Service followed up on this telephone conversation with written correspondence on June 5, 1995. The Corps submitted the written request for formal consultation to the Service on December 6, 1995.

Biological Opinion

It is the biological opinion of the Service that the proposed action is not likely to jeopardize the continued existence of the tidewater goby. Critical habitat has not been designated for this species. Therefore, the proposed action would not result in the adverse modification of critical habitat.

Description of the Proposed Action

The City of Capitola proposes to construct a temporary dam structure within the streambed of Soquel Creek. Construction of the dam would require the excavation of material and placement of fill within waters of the United States. The Corps has issued a permit that authorizes the proposed action until July 1, 2000.

The proposed project is located south of Highway 1 at the end of Beverly Avenue in the City of Capitola. The proposed project would involve excavation of approximately 3,500 cubic yards of sand from a 1.50 acre area of beach adjacent to Soquel Creek. The excavated material would be used as fill material to construct a temporary sandbar across the channel of Soquel Creek, creating a freshwater lagoon. This activity would directly affect approximately 0.50 acres of stream channel. The depth of the fill will vary from 0 to 6 feet, with an average depth of 4 feet. All fill material will be obtained from the project site with no imported material anticipated. An existing concrete box culvert at the mouth of Soquel Creek would allow for the movement of fish between the lagoon and Monterey Bay. The temporary dam would be installed approximately 2 weeks after Memorial Day and remain until the structure is breached by rains in October or November. The purpose of the proposed project is to enhance public recreational opportunities and wildlife habitat.

EXHIBIT NO. 7
APPLICATION NO.
3-90-041-AP
CC California Coastal Commission

