



# City of Santa Barbara California

## PLANNING COMMISSION STAFF REPORT

**REPORT DATE:** August 13, 2015  
**AGENDA DATE:** August 20, 2015  
**PROJECT ADDRESS:** 236 E. Cabrillo Blvd. (MST2014-00596)  
 Laguna Pump Station Facility Repair and Maintenance Project  
**TO:** Planning Commission  
**FROM:** Planning Division, (805) 564-5470, extension 4558  
 Beatriz Gularte, Senior Planner *BEG*  
 Steve Greer, Project Planner/Environmental Analyst *SG*

### I. PROJECT DESCRIPTION

The Laguna Pump Station Facility (Facility) is located between Cabrillo Boulevard and the tide gate structure on Laguna Channel. The overall project consists of limited repairs and maintenance of the existing Facility and tide gate structure, and a restoration plan. The project is proposed in four phases. Phase 1 includes removal of sedimentation and vegetation in the channel, repairs to channel wall, installation of an additional debris rack, repairs to the existing wet well inlet screen, improved lighting and cameras for monitoring of conditions. Phase 2 includes the repair of the internal mechanics of Tide Gate No.3, sedimentation removal between the Cabrillo Beachway and tide gates, and replacement outflow cover for the storm drain outlet. Phase 3 includes planting native vegetation to replace what is removed from channel. This will extend the area of restoration for the Cabrillo Bridge Replacement and Lower Mission Creek Flood Control Lagoon Restoration projects scheduled for 2016. Phases 2 and 3 are within Coastal Commission original permit jurisdiction. Phase 4 includes the on-going maintenance of the channel, which entails the removal of excess sedimentation prior to anticipated major storm events.

### II. REQUIRED APPLICATIONS

The discretionary applications required for this project are:

- A. A Coastal Development Permit (CDP2015-00015) to allow the proposed project in the Appealable Jurisdiction of the City's Coastal Zone (SBMC §28.44.060).
- B. Recommendation to the California Coastal Commission for approval of the interior mechanical repairs to Tide Gate #3, replacement of the storm drain outlet outflow cover, and for implementation of the restoration plan. All of these project components are located within the Original Permit Jurisdiction of the Coastal Zone.

**APPLICATION DEEMED COMPLETE:** July 13, 2015  
**DATE ACTION REQUIRED:** September 11, 2015

### **III. RECOMMENDATION**

Staff recommends that the Planning Commission approve Phases 1 and 4 of the project, and recommends Planning Commission support of Phases 2 and 3 of the project to the Coastal Commission, making the findings outlined in Section IX of this report, subject to the conditions of approval in Exhibit A. If approved, the project would conform to the City's Zoning and Building Ordinances and policies of the General Plan and Local Coastal Plan. The project would be a benefit to the community by providing necessary repairs to keep the Facility operational for flood control purposes. Having the sediment and vegetation removed from the concrete lined channels allows for more water to be held within the channel. Repairing the channel walls will help maintain the structural integrity of the wall when it is full of water. Without the project, the potential flooding of surrounding neighborhoods is much more likely during significant storm events.

### **IV. BACKGROUND**

The Facility is located between Cabrillo Boulevard and the Tide Gate House on Laguna Channel (Figures 1 and 2: Vicinity and Aerial Maps). This City facility is essential in minimizing the impact of flooding in the low lying neighborhoods between Laguna and Milpas Streets. The Facility was constructed in 1939 and expanded in the 1960s.

The primary purpose of the Facility is to regulate/manage drainage flows conveyed through Laguna Channel to the Pacific Ocean in conjunction with the operation of the tide gates. Recent engineering reports have identified the Facility's compromised structural integrity, which is caused by cracked concrete and the settlement of channel wall and building slabs, along with corrosion. This increases the risk of reduced function for the Facility, especially under seismic loadings. Major rehabilitation work is currently on hold until funding is identified.

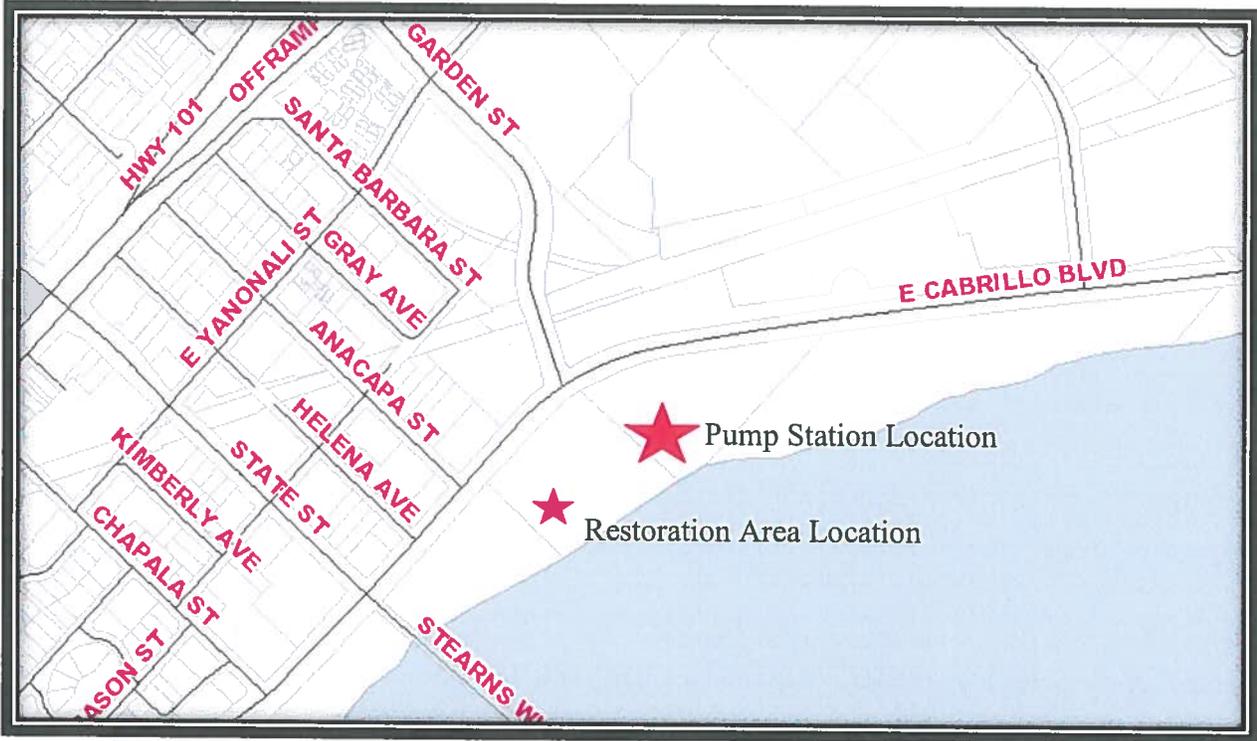


Figure 1: Vicinity Map



Figure 2: Aerial Map

**V. SITE INFORMATION AND PROJECT STATISTICS**

**A. SITE INFORMATION**

<b>Applicant:</b>	Brian D'Amour and Jessica Grant, Public Works Department		
<b>Property Owner:</b>	City of Santa Barbara		
<b>Site Information</b>			
<b>Parcel Number:</b>	017-191-004, 033-120-016	<b>Lot Area:</b>	10.05 acres (Approx. 1 acre developed for Pump Station / Tide Gates Facilities)
<b>General Plan:</b>	Parks / Open Space	<b>Zoning:</b>	P-R/SD-3
<b>Local Coastal Plan:</b> Parks / Open Space			
<b>Existing Use:</b>	Flood Control Pump Station and Tide Gates (Chase Palm Park)	<b>Topography:</b>	Mostly level, exception Drainage Channel
<b>Adjacent Land Uses</b>			
	<b>North</b> – Cabrillo Boulevard		<b>East</b> – Waterfront Parking Lot
	<b>South</b> – Recreational Beach		
	<b>West</b> – Park Facilities		

**VI. POLICY AND ZONING CONSISTENCY ANALYSIS**

**A. ZONING ORDINANCE CONSISTENCY**

With the approval of the Coastal Development Permit (CDP) described below, the project would comply with the requirements of the Zoning Ordinance, Chapter 28.44 Coastal Overlay Zone – SD-3 Zone Designation.

**B. LOCAL COASTAL PLAN CONSISTENCY**

The Local Coastal Plan Land Use Designation for this parcel is Parks and Open Space. A Coastal Development Permit is required for the project, which must be found consistent with both the City's Local Coastal Plan and the California Coastal Act. The project is located in Component 5 of the Local Coastal Plan (LCP), which is located between Santa Barbara Street and Punta Gorda Street.

The major coastal issues identified for Component 5 include potential seismic hazards related to liquefaction; recreational opportunities in the waterfront; visitor-serving commercial possibilities; ocean-oriented industry related to the harbor area; and adequate public services related to circulation, transit, and parking facilities. The project would not significantly reduce convenience of access to or along the coast during or after construction because the proposed site work would not limit public access to the existing beach way path of travel. Similarly, the availability of recreational or visitor-serving uses would not be affected by the project. LCP policies most applicable to this project are discussed below and attached as Exhibit F.

## **1. BIOLOGICAL RESOURCES**

LCP Policies 6.8, 6.9 and 6.10 serve to protect biological productivity and water quality of the City's riparian resources. A biological resources survey was conducted by CardnoEntrix in January 2015 to document species and habitats present that may be affected. The report included recommendations for standard minimization measures. The study concluded that impacts to biological resources within and/or adjacent to the project site (Laguna Channel Pump Station) would be less than significant, with the implementation of standard Best Management Practices (BMPs) and the recommended minimization measures, included in the project description and on Sheet 4 of the project plans. The results of the survey and description of protective measures are summarized in Section VII - Environmental Review. These measures will further reduce potential impacts to the identified resources, consistent with policies of the LCP.)

## **2. VISUAL RESOURCES**

LCP Policy 9.1 protects views to, from, and along the ocean and scenic coastal areas. The project would not alter any views available from public viewpoints because the improvements would not be readily visible from a public viewpoint. Proposed improvements would be within the Laguna Channel Pump Station Facility. The additional debris rack would be located at the bottom of the concrete channel, directly in front of the existing pump station intake debris rack, with a maximum height of four feet. Therefore, the installation of the additional rack would not significantly alter public views of the existing facilities or surrounding area.

## **3. COASTAL HAZARDS**

The LCP Hazards section identifies Tsunami, Erosion and Flooding as the areas of concern within Coastal Zone Component 5, applicable to the project site. The project would be developed consistent with existing plans and policies related to Coastal Hazards as identified in the LCP. Coastal hazards are discussed in more detail under Section VII - Environmental Review.

## **C. CALIFORNIA COASTAL ACT**

The Coastal Act defines land within the Coastal Zone as part of a valuable natural resource of vital and enduring interest to all the people. The Coastal Act prescribes policies for protecting the Coast through environmental protection and land-use restrictions. The project as described would be consistent with the applicable policies of the California Coastal Act.

### **1. ENVIRONMENTALLY SENSITIVE HABITAT AREAS**

The California Coastal Act requires that environmentally sensitive habitat areas (ESHA) be protected (Public Resources Code [PRC] §30240). The project site is within and adjacent to the Laguna Channel. While this portion of the Laguna Channel has not been identified as ESHA, implementation of standard BMPs and minimization measures included as part of the project description and plan would further assure that the project would have no direct or indirect impacts to potential sensitive biological resources. Therefore, the proposed project would be consistent with this policy.

## **2. FLOODING**

California Coastal Act (PRC §30236) states that substantial alterations to rivers or streams are only allowed for flood control or water supply projects necessary to protect public safety and existing development. It further states that alterations must incorporate the best mitigation measures feasible. The proposed project would not significantly alter the configuration of Laguna Channel. The proposed removal of sedimentation and vegetation from the channel bottom, the placement of an additional debris rack, and related pump station / tide gate repairs, are for flood control purposes. The project would incorporate BMP's and minimization measures to protect the environment. Therefore, the project would be consistent with this policy.

## **3. COASTAL VISUAL RESOURCES**

California Coastal Act states that coastal scenic visual resources shall be protected (PRC §30251). The proposed project would not obstruct scenic views afforded to the waterfront or surrounding area. Therefore, the project would be consistent with this policy.

# **VII. ENVIRONMENTAL REVIEW**

The proposed project is subject to California Environmental Quality Act (CEQA) review. Based on City staff analysis, no further environmental document is required for this project pursuant to the CEQA Guidelines Section 15301 (b), Existing Facilities.

Review of the Santa Barbara Master Environmental Assessment (MEA) and other resource maps identified the following categories for specific evaluation.

## **1. CULTURAL RESOURCES**

The project site is identified in the City's MEA as outside the boundaries of an archaeological area of concern. The site, at its westerly boundary, is adjacent to the boundaries of the American Period and the Early 20<sup>th</sup> Century Period. The project proposes no ground disturbance beyond depth or area of previous disturbance. An archaeological survey report (ASR) was recently completed for the Charles Meyer Desalination Plant Reactivation project. The project area evaluated included the parcel adjacent to the east of current project location. The survey concluded that due to the extensive ground disturbance that has previously occurred on the site (i.e. grading, excavation, construction, underground piping and imported fill) there was very low potential to impact cultural resources (Dudek, December 2014). Therefore, based on the above information, the project would have a less than significant impact on potential cultural resources.

## **2. BIOLOGICAL RESOURCES**

The City's MEA identified the project area as including several biological resources. A field reconnaissance survey was conducted in January 2015 by CardnoEntrix. The purpose of the survey was to identify plant species and communities present, verify that the tidewater goby or other special-status species are not present, document aquatic species present, and map vegetation in the channel to update a map completed in 2012. The area surveyed is located from Cabrillo Boulevard to the tide gates. The survey

states that Dr. Rosemary Thompson and Ms. Megan Olesen conducted visual checks where water clarity allowed observation of the entire water and captured fish and other aquatic species by dip net wherever open water was present. Many dip net sweeps were made in the open water areas. The extent (length and width) of emergent vegetation was recorded using a tape measure. The length of the channel was walked by Ms. Tamara Klug to identify plant species and communities present.

The report concluded that although dense emergent vegetation in portions of the channel limited the use of dip nets, no fish were observed in the shallow water between the plants. The most likely species to be present within the vegetation are red swamp crayfish and other small aquatic invertebrates. Pond turtles are known to be present further upstream and downstream in this drainage and have a low potential to occur in the project area. The proposed maintenance activities would not adversely affect aquatic species because no native fish, amphibians, or reptiles were found or expected to occur in the channel.

The report indicates that bird use of the area would be disrupted temporarily during the work but could continue after that. Removal of the emergent vegetation with the sediment in the concrete lined areas would alter the habitat present and remove cover that may be used by some common birds. A small front load bobcat tractor would be used to remove sedimentation and vegetation within channel on concrete bottom. A crane would be used to move material from channel. All other activity within channel would occur by hand with mechanized equipment. The value of this habitat for birds is limited due to the narrow, linear plant distribution, lack of adjacent cover, and adjacent disturbances (noise and visual) from human activities. Removal of this sediment and vegetation would not adversely affect their populations in the area due to the small size of the project area and presence of abundant cover habitat nearby. Much greater extent and quality of emergent vegetation habitat and well as open water is present at the Andre Clark Bird Refuge 1.3 to 1.7 miles to the east. Other similar habitat is also present on the downstream side of the tide gates, upstream in Chase Palm Park, and along the lagoon shore near Mission Creek.

The report states that the wetland vegetation that has colonized the accumulated sediment is present due to lack of regular maintenance in the channel. The channel bottom is concrete lined from about 40 feet south of Cabrillo Boulevard to the tide gates, so no natural stream bed is present. Trimming of vegetation over the natural bottom would result in a temporary loss of habitat over the winter until the plants grew up again in the spring from the root stocks left in the sediment. Removal of vegetation in the concrete channel and continued maintenance to keep the channel clear would result in a permanent loss of a small area of marginal quality habitat.

The California Department of Fish and Wildlife (CDFW) has been consulted regarding the project and has reviewed the above referenced biological survey. The recommendations from the biological survey have been incorporated into the project description by the City Public Works Department and included as conditions of approval. This includes a restoration plan to offset the loss of vegetation in the bottom

of the channel. The restoration would encompass approximately 9,420 sq.ft. of area (3:1 ratio of removed vegetation). This would occur as an extension of the previously approved restoration plans associated with the Cabrillo Bridge Replacement Project over Mission Creek (MST2004-00878) and Lower Mission Creek Flood Control Project (MST2008-00360). All restoration plans are scheduled for implementation in 2016. The restoration would occur approximately 400 feet from the Facility. The implementation of standard BMPs and minimization measures, including the restoration plan, as part of the project description and plan, would further assure that the project would have a less than significant impact to biological resources.

### **3. STORM WATER RUN-OFF**

The project proposes repairs and improvements to the existing Laguna pump station / tide gate facilities. The facilities are a critical component of the City's flood control operations. A primary objective of the project is to reduce potential flooding impacts generated by storm water run-off during significant storm events. Therefore, the project would have a beneficial effect in conveyance of storm water run-off.

### **4. POTENTIAL FLOOD IMPACTS**

The pump station/tide gate facilities are identified in the City's MEA Flood Zone Maps and corresponding FEMA Flood Insurance Rate Maps as within a 100 year floodway. A No-Rise Certificate, as required by both City and Federal regulations, has been issued by the City Engineer for proposed work within the channel (designated floodway). As described above in Section VI.C.2 of this report, the proposed maintenance and repair project would not significantly alter the configuration of Laguna Channel. The proposed removal of sedimentation and vegetation from the channel bottom, the placement of an additional debris rack, and related pump station / tide gate repairs, are for flood control purposes. The project would incorporate BMP's. and would reduce potential impacts generated by flood events occurring within the upland Laguna Creek watershed and/or urban areas of the City which convey storm water into the Laguna Creek Drainage Channel. Therefore, the project would have a beneficial impact in relation to potential flood impacts.

### **5. POTENTIAL TSUNAMI IMPACTS**

The pump station/tide gate facilities are identified in the City's MEA as within the tsunami "run-up" area. Available data indicates that the probability of a significant tsunami event in the Santa Barbara coastal area is low. In 2009, the California Emergency Management Agency (CalEMA) and the California Geological Survey completed inundation maps for all the at-risk portions of the California coastline. These maps show the maximum inundation predicted from an event, either historical or based on a scenario, from many different sources. Assumptions included credible source scenarios for both distant and local events, at mean high tide, to produce a worst case scenario inundation line. Run-ups go to about 10 feet in elevation onshore for the maximum distance event, and up to 20+ feet from a potential local off-shore earthquake/landslide source. Based on these projections and review of local mapping, a tsunami generated from a distant event (significant earthquake) could impact the entire

City's Waterfront, including the Laguna Pump Station Facility. Repair and maintenance of this facility is necessary to limit the severity of potential impact. Having the sediment and vegetation removed from the concrete lined channels allows for more water to be held within the channel. Repairing the channel walls will help maintain the structural integrity of the wall when it is full of water.

#### **6. SEA LEVEL RISE POTENTIAL IMPACTS**

Sea level rise (SLR) has been a growing concern at both a global and local level. The most recent available data indicates that during the estimated 30 - 35 year life expectancy of the proposed project, a rise in sea level would range from a minimum of 5 inches to a maximum of 24 inches (National Resource Council 2012 & Ocean Protection Council 2013, Sea Level Rise Projections for Year 2050). Based on these projections and review of local SLR mapping, there would likely be an increase in occurrences of storm events, and potential sea level rise affecting the channel and tide gate structure over the next 35 years. The proposed maintenance and repair project extends the life of the facility and allows the facility to maintain its function. Major rehabilitation work is currently on hold until funding is identified.

### **VIII. DESIGN REVIEW**

The project was scheduled to be reviewed by the Historic Landmarks Commission on August 12, 2015. The summary will be provided at the Planning Commission hearing. The two components of the project requiring HLC review and comment are the proposed restoration plan and the placement of the additional debris rack. The placement of the additional debris rack will occur within the channel. The restoration will occur in the 00 block of Cabrillo Boulevard as an expansion, in an easterly direction, of the previously approved restoration plans associated with the Cabrillo Bridge Replacement Project over Mission Creek (MST2004-00878) and Lower Mission Creek Flood Control Project (MST2008-00360). The restoration would occur approximately 400 feet west from the Facility. The project will be scheduled for final review and approval by the HLC in September of this year

### **IX. FINDINGS**

The Planning Commission finds the following:

#### **A. ENVIRONMENTAL REVIEW**

The project qualifies for an exemption from further environmental review under CEQA Guidelines Section 15301 (b), Existing Facilities, based on the City staff analysis.

#### **B. COASTAL DEVELOPMENT PERMIT (SBMC §28.44.150)**

1. The project is consistent with the policies of the California Coastal Act because it protects existing biological resources, does not alter the existing drainage channel, and does not impact visual resources, as described in Section VI.B of the Staff Report.
2. The project is consistent with all applicable policies of the City's Local Coastal Plan, all applicable implementing guidelines, and all applicable provisions of the Code, as described in Section VI.C of the Staff Report. This includes, but is not limited to, consistency with LCP Policies 6.8, 6.9 and 6.10 which serve to protect biological

productivity and water quality of the City's riparian resources and LCP Policy 9.1, which protects views to, from, and along the ocean and scenic coastal areas.

Exhibits:

- A. Conditions of Approval
- B. Project Plans dated July 10, 2015
- C. Applicant's letter dated July 2015
- D. Biological Resources Survey for Laguna Channel dated August 7, 2015
- E. Applicable Local Coastal Plan Policies

## PLANNING COMMISSION CONDITIONS OF APPROVAL

236 E. CABRILLO BLVD  
LAGUNA PUMP STATION  
COASTAL DEVELOPMENT PERMIT  
AUGUST 20, 2015

In consideration of the project approval granted by the Planning Commission, the following terms and conditions are imposed on the use, possession, and enjoyment of the project site:

- A. **Order of Development.** In order to accomplish the proposed development, the following steps shall occur in the order identified:
1. Obtain all required design review approvals.
- B. **Written Agreement.** The Applicant shall submit a letter to the Planning Division indicating the following:
1. **Approved Development.** The development approved by the Planning Commission on August 20, 2015 is limited to repairs and maintenance of the existing Laguna Pump Station Facility (Facility) and tide gate structure. including, removal of sedimentation and vegetation in the channel, repairs to channel wall, installation of an additional debris rack, repairs to the existing wet well inlet screen, improved lighting and cameras for monitoring of conditions (Phase 1); the repair of the internal mechanics of Tide Gate No.3, sedimentation removal between the Cabrillo Beachway and tide gates, and replacement outflow cover for the storm drain outlet (Phase 2); the planting of native vegetation at a 3:1 ratio to replace what is removed from channel extending the area of restoration for the Cabrillo Bridge Replacement and Lower Mission Creek Flood Control Lagoon Restoration projects (Phase 3), the on-going maintenance of the channel, which entails the removal of excess sedimentation prior to anticipated major storm events (Phase 4), and the related improvements shown on the plans signed by the chairman of the Planning Commission on said date and on file at the City of Santa Barbara.
  2. **Use Limitations.** Due to the proximity to biological resources, uses other than those related to pump plant and/or flood control operations and maintenance are not permitted at this location without further environmental review and/or Planning Commission review and approval.
  3. **Drainage System Maintenance.** The owner/applicant shall implement and maintain the drainage system in a functioning state. Should any of the project's surface or subsurface drainage structures result in increased erosion, the Public Works Department shall be responsible for any necessary repairs to the system and restoration of the eroded area. Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the Owner shall submit a repair and restoration plan to the Community Development Director to determine if an amendment or a new Coastal Development Permit is required to authorize such work. The Public Works Department is responsible for the adequacy of any project-related drainage facilities and for the continued

maintenance thereof in a manner that will preclude any hazard to life, health, or damage to the Real Property or any adjoining property.

4. **BMP Training.** Training on the implementation of Best Management Practices (BMPs) shall be provided to every employee of the Laguna Pump Station facility by the Applicant/management in order to prevent or reduce the discharge of pollutants to storm water from buildings and ground maintenance. The training shall include using good housekeeping practices, preventive maintenance and spill prevention and control at outdoor loading/unloading areas in order to keep debris from entering the storm water collection system.

C. **Avoidance and Minimization Measures – CardnoEntrix Biological Resource Study.** The following minimization measures, recommended in the Biological Resource Study (BSR) prepared for the proposed project (CardnoEntrix, August 7, 2015), and included as part of the project description, shall be required:

1. **Environmental Training.** A qualified biologist will provide environmental training for all workers. This includes a description of special-status species that could be present and what to do if any are observed (BIO-1).
2. **Southwestern Pond Turtle Protection.** A qualified biologist will check the channel immediately prior to sediment removal to verify that no southwestern pond turtles are present (BIO-2).
3. **Channel Sedimentation Removal Requirements.** Water shall be pumped out of the channel using the existing pumps to discharge to the lagoon prior to sediment removal to minimize turbidity. If continued pumping is required during sediment removal, it shall be discharged to a settling basin/tank. After the sediment is removed, any visible turbidity shall be allowed to settle prior to pumping out the remaining water to the lagoon, or pump it to a settling basin. Turbidity shall be monitored at the discharge point when water is first pumped out after channel clearings (BIO-3).
4. **Channel Wall Construction Requirements.** During repair of the channel walls, if wet concrete comes in contact with surface water, the pH of that water will be tested. If the pH is greater than 8.5, the water will be pumped into a vacuum truck and disposed off site (BIO-4).
5. **Tide Gate Repair Requirements.** For repair of Tide Gate #3, qualified biologists will sweep the area adjacent (ocean side) to the gates with a seine (if feasible due to boulders and other obstructions on the bottom) to herd as many tidewater gobies as possible out of the work area. The seine (or a longer one) will then be used as a block net to prevent fish from reentering the work area. After the cofferdam is installed, water between it and the gates will be pumped down to no more than one foot deep using a screened pump (mesh 1/8-inch or less) to allow biologists to capture and relocate any tidewater gobies and other native fish present prior to opening the tide gate. Once the gate is repaired and storm drain outlet cover

replaced, water will be allowed to rise within the cofferdam to the same level as in the lagoon prior to removal of the cofferdam (BIO-5).

6. **Non-Native Herb of Grace Removal Requirements.** The non-native herb of grace will be completely removed from the site (including roots), bagged, and disposed in a landfill to prevent spread to other areas (BIO-6).
  7. **Emergent Vegetation Management Requirements.** Emergent vegetation on natural bottom sediments adjacent to Cabrillo Boulevard should be trimmed to the top of the water surface level in the fall prior to runoff events (BIO-7).
  8. **Ongoing Channel Maintenance Requirements.** Sediment removal from the concrete lined channel as part of ongoing channel maintenance should occur in the fall prior to runoff events and at the end of the rainy season (as needed, depending on amount of deposition) to minimize sediment available for colonization by vegetation (BIO-8).
- D. **Design Review.** The project, is subject to the review and approval of the Historic Landmarks Commission (HLC).
- E. **Requirements Prior to Permit Issuance.** The Applicant shall submit the following, or evidence of completion of the following, for review and approval by the Department listed below prior to the issuance of any permit for the project. Some of these conditions may be waived for demolition or rough grading permits, at the discretion of the department listed. Please note that these conditions are in addition to the standard submittal requirements for each department.
1. **Community Development Department.**
    - a. **Written Agreement.** Provide the written instrument that includes all of the conditions identified in Condition B "Written Agreement" to the Community Development Department prior to commencement of work.
    - b. **Contract with Biologist.** Submit a contract with a City approved qualified biologist for monitoring and reporting during all ground-disturbing activities associated with the project, including, but not limited to, grading, excavation, trenching, vegetation or paving removal, and ground clearance in the areas identified in the Biological Resources Survey Report prepared for this site by CardnoEntrix, dated August 7, 2015. The contract shall be subject to the review and approval of the Environmental Analyst.
    - c. **Biologist Scope of Work.** The scope of the biologist's monitoring and reporting contract shall include both the provisions identified in "Conclusions and Recommendations" from the Biological Resources Survey Report referenced above, and the provisions identified in "Avoidance and Minimization Measures" included in CDFW SAA, Notification No. 1600-2014-0246-R5.
    - d. **No-Rise Certificate.** The Applicant shall provide a Base Flood Elevation and show compliance with applicable flood proofing as required by SBMC §22.24.160. This information shall be included in project plan set.

- e. **Contractor and Subcontractor Notification.** The Applicant shall notify in writing all contractors and subcontractors of the site rules, restrictions, and Conditions of Approval. Submit a draft copy of the notice to the Planning Division for review and approval.
- f. **Conditions on Plans/Signatures.** The final Resolution shall be provided on a full size drawing sheet as part of the drawing sets. Each condition shall have a sheet and/or note reference to verify condition compliance. If the condition relates to a document submittal, indicate the status of the submittal (e.g., Restoration Plan submitted to CDFW for review and approval). A statement shall also be placed on the sheet as follows: The undersigned have read and understand the required conditions, and agree to abide by any and all conditions which are their usual and customary responsibility to perform, and which are within their authority to perform.
- g. Signed:

Applicant		Date
Contractor	Date	License No.
Architect	Date	License No.
Engineer	Date	License No.

- F. **Construction Implementation Requirements.** All of these construction requirements shall be carried out in the field by the Applicant and/or Contractor for the duration of the project construction, including demolition and grading.
  - 1. All applicable measures included in both C. Avoidance and Minimization Measures - CardnoEntrix Biological Resource Study and "Avoidance and Minimization Measures" included in CDFW SAA, Notification No. 1600-2014-0246-R5, shall be implemented prior and/or during construction as described.
  - 2. **Best Management Practices (BMPs).** The Contractor shall install appropriate BMPs to control sediment, coarse particles, concrete, and other materials exposed during demolition and drilling to protect aquatic, wetland, and riparian habitats adjacent to construction site. Erosion control measures should be implemented to prevent runoff of these materials into Laguna Channel. Silt fencing, straw bales, and/or sand bags should be used in conjunction with other methods to prevent turbid waters from entering stream channels. These practices shall include all applicable measures as

During construction activities, washing of concrete, paint, or equipment shall occur only in areas where polluted water and materials can be contained for subsequent removal from the site. Washing will not be allowed in locations where the tainted water could enter Laguna Channel or the Pacific Ocean.

These practices shall include applicable measures in both C. Avoidance and Minimization Measures – CardnoEntrix Biological Resource Study as listed above and “Avoidance and Minimization Measures” included in CDFW SAA, Notification No. 1600-2014-0246-R5.

3. **Pre-Construction Conference. (BIO-1)** Not less than 10 days or more than 20 days prior to commencement of construction, a conference to review site conditions, construction schedule, construction conditions, and environmental monitoring requirements (see condition No. E.4 below), shall be held by the General Contractor. The conference shall include representatives from the Public Works Department Engineering, Community Development Department Building and Planning Divisions, the Creeks Division, the approved Biologist, Contractor and each Subcontractor.
4. **Workers Educational Training. (BIO-1)** Prior to the initiation of any site disturbance and/or construction activities, all personnel associated with the project shall attend a worker education training program (program) conducted by a qualified biologist. In general, it is recommended that the program discuss tidewater goby and Pacific pond turtle habitat preference(s), occupied habitat in the area, life histories, law and regulations, as well as potential construction impacts and protection measures, and project limits. Protections and regulations for the Laguna Channel, the riparian habitat, and nesting birds shall also be included in the program. It is recommended that a species and habitat fact sheet also be developed prior to the training program and distributed at the training program to all contractors, employers and other personnel involved with the construction of the Projects. Specifically, the program should also include:
  - a. Measures to prevent indirect impacts during construction activities should be covered, including delivery, storage, and usage of construction materials and chemicals as they relate to the protection of adjacent aquatic habitat.
  - b. Training materials should include laws and regulations that protect sensitive biological resources, the consequences of non-compliance with those laws and regulations and a contact person (i.e. construction manager, biological monitor, and City’s Project manager) in the event that protected biological resources are affected.

The City shall notify the approved biologist in advance of the kick-off meeting and any subsequent meetings that may take place if additional contractors are employed during additional construction projects of the project. A sign in sheet will be circulated for signatures to all personal that attend the workers educational training to confirm that program materials were received and that they understand information presented.

5. **Construction Storage/Staging.** Construction vehicle/equipment/materials storage and staging shall be done on-site. Parking or storage shall be permitted only within the identified area adjacent to the Laguna Channel in parking lot.
6. **Construction Parking.** During construction, free parking spaces for construction workers shall be provided on-site.
7. **Air Quality and Dust Control.** The following measures shall be shown on grading and building plans and shall be adhered to throughout grading, hauling, and construction activities:
  - a. During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required whenever the wind speed exceeds 15 mph. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.
  - b. Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less.
  - c. If importation, exportation and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.
  - d. Gravel pads shall be installed at all access points to prevent tracking of mud onto public roads.
  - e. After clearing, grading, earth moving or excavation is completed, treat the disturbed area by watering, or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur.
  - f. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to land use clearance for map recordation and land use clearance for finish grading of the structure.
  - g. All portable diesel-powered construction equipment shall be registered with the state's portable equipment registration program OR shall obtain an APCD permit.
  - h. Fleet owners of mobile construction equipment are subject to the California Air Resource Board (CARB) Regulation for In-use Off-road Diesel Vehicles (Title 13 California Code of Regulations, Chapter 9, § 2449), the purpose of which is to reduce diesel particulate matter (PM) and criteria

pollutant emissions from in-use (existing) off-road diesel-fueled vehicles. For more information, please refer to the CARB website at [www.arb.ca.gov/msprog/ordiesel/ordiesel.htm](http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm).

- i. All commercial diesel vehicles are subject to Title 13, § 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.
  - j. Diesel construction equipment meeting the California Air Resources Board (CARB) Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting CARB Tier 2 or higher emission standards should be used to the maximum extent feasible.
  - k. Diesel powered equipment should be replaced by electric equipment whenever feasible.
  - l. If feasible, diesel construction equipment shall be equipped with selective catalytic reduction systems, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California.
  - m. Catalytic converters shall be installed on gasoline-powered equipment, if feasible.
  - n. All construction equipment shall be maintained in tune per the manufacturer's specifications.
  - o. The engine size of construction equipment shall be the minimum practical size.
  - p. The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time. Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.
8. **Asbestos & Lead-Containing Materials.** Pursuant to Air Pollution Control District (APCD) Rule 1001, the applicant is required to complete and submit an Asbestos Demolition / Renovation Notification form for each regulated structure to be demolished or renovated. The completed notification shall be provided to the Santa Barbara County APCD with a minimum of 10 working days advance notice prior to disturbing asbestos in a renovation or starting work on a demolition. Any abatement or removal of asbestos and lead-containing materials must be performed in accordance with applicable federal, State, and local regulations. Disposal of material containing asbestos and/or lead shall be in sent to appropriate landfills that are certified to accept this material.
9. **Biological Resources Minimization Monitoring Compliance Reports.** The City-approved biologist shall submit monthly reports on all repairs, maintenance or other construction activity regarding required minimization measures compliance

to the Community Development Department. A final report shall be submitted to the Community Development Department at time all improvements and applicable minimization measures are completed and deemed by the biologist acceptable.

10. **Unanticipated Archaeological Resources Contractor Notification.** Standard discovery measures shall be implemented per the City master Environmental Assessment throughout grading and construction: Prior to the start of any vegetation or paving removal, demolition, trenching or grading, contractors and construction personnel shall be alerted to the possibility of uncovering unanticipated subsurface archaeological features or artifacts. If such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and the Applicant shall retain an archaeologist from the most current City Qualified Archaeologists List. The latter shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for archaeological resource treatment, which may include, but are not limited to, redirection of grading and/or excavation activities, consultation and/or monitoring with a Barbareño Chumash representative from the most current City qualified Barbareño Chumash Site Monitors List, etc.

If the discovery consists of possible human remains, the Santa Barbara County Coroner shall be contacted immediately. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission. A Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

If the discovery consists of possible prehistoric or Native American artifacts or materials, a Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

A final report on the results of the archaeological monitoring shall be submitted by the City-approved archaeologist to the Environmental Analyst within 180 days of completion of the monitoring and prior to any certificate of occupancy for the project.

**G. General Conditions**

1. **Compliance with Requirements.** All requirements of the City of Santa Barbara and any other applicable requirements of any law or agency of the State and/or any government entity or District shall be met. This includes, but is not limited to, the Endangered Species Act of 1973 and any amendments thereto (16 Uq.), the 1979 Air Quality Attainment Plan, and the California Code of Regulations. This also includes, but is not limited to, any permit or agreement required by CDFW, ACOE, and CRWQCB.

**NOTICE OF COASTAL DEVELOPMENT PERMIT TIME LIMITS:**

The Planning Commission action approving the Coastal Development Permit shall expire two (2) years from the date of final action upon the application, per Santa Barbara Municipal Code §28.44.230, unless:

1. Otherwise explicitly modified by conditions of approval for the coastal development permit.
2. The Community Development Director grants an extension of the coastal development permit approval. The Community Development Director may grant up to three (3) one-year extensions of the coastal development permit approval. Each extension may be granted upon the Director finding that: (i) the development continues to conform to the Local Coastal Program, (ii) the applicant has demonstrated due diligence in completing the development, and (iii) there are no changed circumstances that affect the consistency of the development with the General Plan or any other applicable ordinances, resolutions, or other laws.





# City of Santa Barbara

Public Works Department

[www.SantaBarbaraCA.gov](http://www.SantaBarbaraCA.gov)

August 10, 2015

**Main Office**

630 Garden Street  
P.O. Box 1990  
Santa Barbara, CA  
93102-1990

**Administration**

Tel: 805.564.5377  
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**Water Resources**

Tel: 805.564.5387  
Fax: 805.897.2613

City of Santa Barbara Planning Commission  
Attn.: Mrs. Bea Gularte, Development Review Supervisor and Steve Greer,  
Environmental Analyst  
Community Development Department, Planning Division  
630 Garden Street  
Santa Barbara, CA 93101

**SUBJECT:** Laguna Pump Station Facility Repair and Maintenance Project, 236  
East Cabrillo Boulevard

Dear Chair Thompson and Commissioners:

The City of Santa Barbara Public Works Department requests:

- A. Approval of a Coastal Development Permit for the Laguna Pump Station Facility Repair and Maintenance Project for work within the City's Coastal Zone Permit Jurisdiction; and
- B. Recommendation for approval of a Coastal Development Permit from the California Coastal Commission for the Laguna Pump Station Facility Repair and Maintenance Project for work within the original permit jurisdiction of the California Coastal Commission.

**Background:**

The Laguna Pump Station Facility (Facility), which is located between Cabrillo Boulevard and the Tide Gate House, is a critical City facility that is essential in minimizing the impact of flooding in the low lying neighborhoods between Laguna and Milpas Streets. The Facility was constructed on the ocean side of Cabrillo Boulevard in 1939 and expanded in the 1960s. The Facility consists of the following:

1. Laguna Channel Pump House:
  - Single story concrete masonry unit structure with a metal roof. A cast in place concrete pump well extends beneath the building and opens to the forebay channel. The pump station removes stream flows from Laguna Channel and discharges into a concrete side channel, which empties onto the beach on the ocean-side of the tide gates.
2. Pump House Forebay Channel (Part of Laguna Channel):
  - The termination of Laguna Channel serves as the forebay for the pump house. This portion of the channel is trapezoid in shape; the two walls are inclined at a 1:1 slope and lined with concrete. The channel bottom

Letter to the Planning Commission  
Laguna Pump Station Facility Repair and Maintenance Project, 236 East Cabrillo  
Boulevard  
August 10, 2015

is concrete in the forebay vicinity except for a small area adjacent to Cabrillo Blvd. Bridge over Laguna Channel.

3. Pump House Discharge Channel:
  - The discharge channel is trapezoid in shape and located behind the pump house. The two walls are inclined at a 1 ½ :1 slope and lined with concrete. The channel bottom is concrete, and outfalls to an open channel with grouted rock slope protection.
4. Tide Gates:
  - The tide gate structure consists of a cast-in-place concrete headwall for (3) gate valves. The valve actuators are housed in a timber framed stucco building atop the headwall. A galvanized steel catwalk with steel handrails crosses the channel adjacent to the landward side of the structure. The tide gates are typically kept closed since high tides, wave surges, and the outflow of Mission Creek during storm events would flood Laguna Channel and a good portion of the City otherwise. Under certain conditions the tide gates are opened to allow Laguna Channel flows to directly reach the ocean. If the pump fails or has insufficient capacity to pump the inflow, and the tide gates cannot be opened, there is a potential for significant flooding upstream.

Recent engineering reports have identified the Facility's compromised structural integrity, which is caused by cracked concrete and the settlement of channel wall and building slabs, along with corrosion. This increases the risk of reduced function for the Facility, especially under seismic loadings. Major rehabilitation work is currently on hold until funding is identified.

In January 2014, City Council designated \$500,000 in one-time General Fund monies towards short term repairs.

### **Project Description:**

The Laguna Pump Station Facility Repair and Maintenance Project (Project) involves short term repairs to the deteriorating Facility and surrounding infrastructure. The Project is proposed in four phases:

Phase 1: Short Term Repairs and Maintenance within the City's Appealable Jurisdiction of the Coastal Zone. The following work will occur in the fall of 2015 prior to any major rain events:

1. Maintain existing channel by removing approximately 100 cubic yards (3,140 square feet) of accumulated sediment and associated vegetation in the concrete-lined portion and by trimming the vegetation in the natural bottom section for flood control purposes. Please note of the 3,140

Letter to the Planning Commission  
Laguna Pump Station Facility Repair and Maintenance Project, 236 East Cabrillo  
Boulevard  
August 10, 2015

square feet of vegetation removal, 1,100 square feet is located within the Original Permit Jurisdiction of the Coastal Zone.

2. Repair channel wall and stabilize walls compromised by burrowing ground squirrels.
3. Construct and install an additional in-channel debris rack to improve efficiency of existing debris rack.
4. Repair wet well inlet debris screen and install improved lighting and cameras to monitor conditions

Phase 2: Maintenance work within the Original Permit Jurisdiction of the Coastal Zone. The following work will occur within 2015-2016 during low channel flow conditions:

1. Repair internal mechanics of existing Tide Gate #3.
2. Replace out flow cover of a storm drain outlet. The storm drain is maintained by County of Santa Barbara Flood Control.

Phase 3: Restoration within the Original Permit Jurisdiction of the Coastal Zone.

1. Restore 9,420 square feet of wetland vegetation (3:1 ratio) in project vicinity along Mission Lagoon concurrently with Cabrillo Bridge Replacement and Lower Mission Creek Flood Control Lagoon Restoration projects. All restoration projects are estimated to commence in 2016.

Phase 4: On-going Maintenance (5 Years):

1. Remove excess sediment ahead of anticipated large storm events.
2. Plant establishment period of restoration area.

### **Permits Required**

The Laguna Pump Station Facility is located in the coastal zone along the Laguna Channel. Jurisdictional boundaries are shown on Sheets 2 and 3 of the Project plans. South of the City's beachway is the California Coastal Commission (CCC) Permit Jurisdiction. The Project will require a Coastal Development Permit from the CCC for a portion proposed sediment removal and vegetation clearing (approx. 1,100 square feet), repair of the internal mechanics of existing Tide Gate #3, and replacement of the out flow cover of a storm drain outlet. From the City's beachway north is the City's Coastal Zone, Appealable Jurisdiction. Work proposed in the City's Coastal Zone requires a City Coastal Development Permit.

The Project also requires a Streambed Alteration Agreement from the California Department of Fish and Wildlife, a 401 permit from the Regional Water Quality Control Board, and a 404 permit for the U.S. Army Corps of Engineers. The Public Works Department has applied for these agreements/permits.

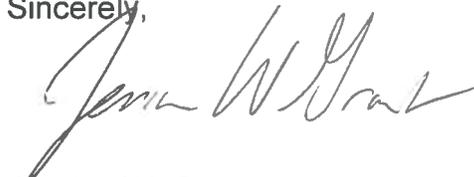
Letter to the Planning Commission  
Laguna Pump Station Facility Repair and Maintenance Project, 236 East Cabrillo  
Boulevard  
August 10, 2015

**Anticipated Emergency Work**

If any large storm events are anticipated during the fall of 2015, Public Works will need to take immediate action and remove 100 cubic yards of sediment and vegetation in the Channel for flood control purposes. A biological survey report was prepared from CardnoENTRIX and the report's recommendations have been incorporated in the Project's plans on Sheet 4, as well as other standard construction best management practices.

Thank you for your review and consideration of this Project. This Project is very important to the continued function of the Laguna Pump Station Facility and to minimize flooding of the low lying neighborhoods between Laguna and Milpas Streets.

Sincerely,



Jessica W. Grant  
Project Planner



Brian D'Amour  
Principal Civil Engineer

JWG/kts

- Enclosures
1. Project Plans
  2. Coastal Development Permit Application
  3. Biological Resources Survey prepared by CardnoENTRIX

cc: Pat Kelly, Assistant Public Works Director/City Engineer  
Browning Allen, Transportation Manager

# Technical Memorandum

**Date** 7 August 2015

**To:** Jessica Grant, Brian D'Amour  
City of Santa Barbara

**From:** Rosie Thompson

**RE:** **Biological Resources Survey for Laguna Channel**

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## 1.0 Introduction

### Background

The Laguna Channel watershed has been extensively modified as a result of urban development. Its drainage discharged into El Estero de Santa Barbara. The Estero outlet to the ocean was at Mission Creek. In the late 1800s and early 1900s, the Estero was drained and filled to allow growth of the Santa Barbara community (ESA PWA 2013). Much of the resulting land area was below mean sea level and still is today. Runoff from the developed area is captured in storm drains that empty into the current Laguna Channel, located east of Mission Creek, which discharges onto East Beach at an elevation below mean sea level. Because this area and the storm drains are below mean sea level, storm runoff into the drainage system can collect and back up, causing flooding of low-lying areas in the City of Santa Barbara. The potential for flooding was especially high during the winter (typically December through February) when very high tides can coincide with large storm events.

### Pump Station Facilities

To alleviate flooding, the Laguna Pump Station Facility was constructed on the ocean side of Cabrillo Boulevard in 1939 and expanded in the 1960s. This facility includes three tide gates at the downstream end of the channel, a pump station to remove water and discharge it onto the beach, and concrete lining of the channel from just south of Cabrillo Boulevard to the tide gates. Under dry season and low runoff events, the facility is operated by pumping water that accumulates in the channel when it reaches a set level. During high runoff events, the tide gates can be opened if the water/sand level on the beach side is low enough (i.e., low tide and low sand berm) and then closed when the water/sand level on the ocean side is too high. Under the current City Sediment Management Plan, the Mission Creek and Laguna Channel lagoons are usually joined so that water levels are too high for tide gate operation unless the lagoon has breached from natural water flows.

The gradient in Laguna Channel is very low, such that sediment from the watershed accumulates in Laguna Channel downstream of Cabrillo Boulevard and is colonized by emergent vegetation unless regular maintenance removes the sediment. Sediment removal was part of regular maintenance of the channel until the early 2000s, when it was suspended for budget reasons. This vegetation, particularly when near the tide gates, has the potential to break loose under high flows and get caught in the tide gates when opened, thereby preventing their closure.

Due to the low channel elevations, not closing the tide gates could result in sea water entering Laguna Channel at high tide, flowing upstream, and flooding low-lying parts of the City. To avoid this risk, the tide gates are not opened, and flooding occurs in the low parts of Santa Barbara when the pump station cannot keep up with the storm inflow.

This City facility is essential in minimizing the impact of flooding in the low lying neighborhoods between Laguna and Milpas streets. Although the facility is in need of a major rehabilitation, the City currently only has funding for short-term repairs and maintenance, including sediment and vegetation removal that have not occurred for a number of years. The City is proposing repair and maintenance in three phases:

### **Phase 1: Short-Term Repairs and Maintenance**

1. Maintain existing channel by removing approximately 100 cubic yards (cy) of accumulated sediment and associated vegetation in the concrete-lined portion and by cutting or mowing the vegetation in the natural bottom section for flood control.
2. Repair channel wall and stabilize walls compromised by burrowing ground squirrels.
3. Construct and install an additional in-channel debris rack to improve efficiency of existing debris rack.
4. Repair wet well inlet debris screen and install improved lighting and cameras to monitor conditions.
5. Remove and replace pump station roof.

### **Phase 2: Repair Tide Gate #3, and replace out-flow cover for storm drain outlet.**

### **Phase 3: Ongoing Maintenance**

Remove excess sediment ahead of anticipated large storm events.

The schedule for these activities is to complete Phase 1 in the winter of 2014-2015 prior to major rain events. Phase 2 would be in 2015 during low channel flow conditions, and Phase 3 would occur as needed over a 5-year period.

To support these activities, a biological resources survey was conducted in Laguna Channel to document species and habitats present that would be affected. The federally listed as endangered tidewater goby (*Eucyclogobius newberryi*) is known to occur in the lagoon on the beach adjacent to the south side of the tide gates, and southwestern pond turtles (*Emys marmorata pallida*), a state species of special concern, are known from upstream in the watershed and in the lagoon downstream of the tide gates. Tidewater gobies have a potential to enter the channel through the leaking Tide Gate #3.

## **2.0 Methods**

A field reconnaissance survey was conducted on 17 November 2014 to identify plant species and communities present, verify that the tidewater goby or other special-status species are not present, document aquatic species present, and map vegetation in the channel to update a map completed in 2012. The area surveyed is located from Cabrillo Boulevard (34.414551, -119.685632) to the tide gates (34.413579, -119.685540). Dr. Rosemary Thompson and Ms. Megan Olesen conducted visual checks where water clarity allowed observation of the entire water column and captured fish and other aquatic species by dip net wherever open water was present. Many dip net sweeps were made in the open water areas. The extent (length and width) of emergent vegetation was recorded using a tape measure. The length of the channel was walked by Ms. Tamara Klug to identify plant species and communities present. No nesting bird survey was conducted because the survey timing was outside the nesting

season. On January 13, the City determined the northward extent of the concrete channel bottom under the accumulated sediment using a probe.

Water quality (temperature, conductivity, pH, and dissolved oxygen [DO]) was recorded immediately upstream of the tide gates at the surface and bottom using a handheld Quanta Hydrolab meter.

Water had accumulated in the channel from groundwater seepage, urban runoff, and leakage through the tide gates. It had not been pumped out yet because the floats on the scavenger pump are not currently working properly so the pump is manually operated. The City turned on the scavenger pump for a few minutes to lower the water level, particularly in the wet well adjacent to the pump house. Water level changes were observed by Cardno ENTRIX staff, and the pump was shut off before the downstream portion of the channel drained out very much.

### 3.0 Results

Water in the channel adjacent to the tide gates appeared milky cloudy when observed from the walkway over the water. Many small fish were observed at the water's surface in this area. Water quality sampling showed DO to be very low and the water to be brackish with essentially no stratification (Table 1). Bottom substrate in this area was soft, black sediment that decreased in depth from the upstream end of the gate bays to the gates. The bottom was concrete under the sediment. Water depth was approximately two feet.

Parameter	Surface	Bottom
Dissolved Oxygen (mg/l)	0.57	0.32
Conductivity (µS/cm)	22.8	22.8
Temperature (°C)	18.80	18.86
pH	7.99	8.15

Dip netting showed the fish observed near the tide gates to be mosquitofish (*Gambusia affinis*), a non-native species. The fish were abundant and ranged in size from about 1 to 4 cm in length. A few mosquitofish were captured upstream in the open water areas along with four red swamp crayfish (*Procambarus clarkii*), another non-native species, ranging in size from large to small. No tidewater gobies or other native fish were found, and no southwestern pond turtles or native amphibians were observed.

California ground squirrels (*Otospermophilus beecheyi*) have burrows under the grouted side slopes of the channel and use openings in the channel walls. A great blue heron (*Ardea herodias*) was observed stalking and capturing crayfish in the channel on 13 October 2014 by R. Thompson. American crows (*Corvus brachyrhynchos*) were common in the channel area and were foraging in the shallow water areas. Several species of gulls as well as black phoebe (*Sayornis nigricans*) are expected to use the channel area at times.

Emergent vegetation has colonized sediment deposits in much of the channel (Figure 1). The dominant species is California bulrush (*Schoenoplectus californicus*) with a few alkali bulrush (*Schoenoplectus maritimus*). The total area of emergent bulrush marsh vegetation is approximately 3,140 square feet (0.072 acre), with approximately 690 square feet (0.016 acre) of this on natural stream bottom and the remainder over concrete. One patch (14 square feet, 0.001 acre) of non-native herb of grace (*Bacopa monnieri*) is present along the east side of the channel. This location is a range extension for herb of grace, which was formerly only known from coastal locations from Orange County southward. This vegetation meets state and federal wetlands criteria. Disturbed areas shown in Figure 1 include the pump station, tide gates, grouted channel walls, landscape vegetation along the west side of

the channel, the bikeway, sidewalks, parking areas, and barren rock riprap. Sparse vegetation has established in cracks in the channel walls and includes horseweed (*Conyza canadensis*).

## 4.0 Conclusions and Recommendations

Although dense emergent vegetation in portions of the channel limited the use of dip nets, no fish were observed in the shallow water between the plants. The most likely species to be present within the vegetation are red swamp crayfish and other small aquatic invertebrates. Pond turtles are known to be present further upstream and downstream in this drainage and have a low potential to occur in the project area. The proposed maintenance activities would not adversely affect aquatic species because no native fish, amphibians, or reptiles were found or expected to occur in the channel.

Bird use of the area would be disrupted temporarily during the work but could continue after that. Removal of the emergent vegetation with the sediment in the concrete lined areas would alter the habitat present and remove cover that may be used by some common birds. The value of this habitat for birds is limited due to the narrow, linear plant distribution, lack of adjacent cover, and adjacent disturbances (noise and visual) from human activities. Removal of this sediment and vegetation would not adversely affect their populations in the area due to the small size of the project area and presence of abundant cover habitat nearby. Much greater extent and quality of emergent vegetation habitat and well as open water is present at the Andre Clark Bird Refuge 1.3 to 1.7 miles to the east. Other similar habitat is also present on the downstream side of the tide gates and along the lagoon shore near Mission Creek.

The wetland vegetation that has colonized the accumulated sediment is present due to lack of regular maintenance in the channel. The channel bottom is concrete lined from about 40 feet south of Cabrillo Boulevard to the tide gates, so no natural stream bed is present. Regulatory agencies (e.g., U.S. Army Corps of Engineers, California Coastal Commission) may or may not consider the channel to have jurisdictional wetlands over the concrete. Removal of vegetation over the natural bottom by cutting/mowing would result in a temporary loss of habitat over the winter until the plants grew up again in the spring from the root stocks left in the sediment. Removal of vegetation in the concrete channel and continued maintenance to keep the channel clear would result in a permanent loss of this marginal quality habitat.

### Recommendations

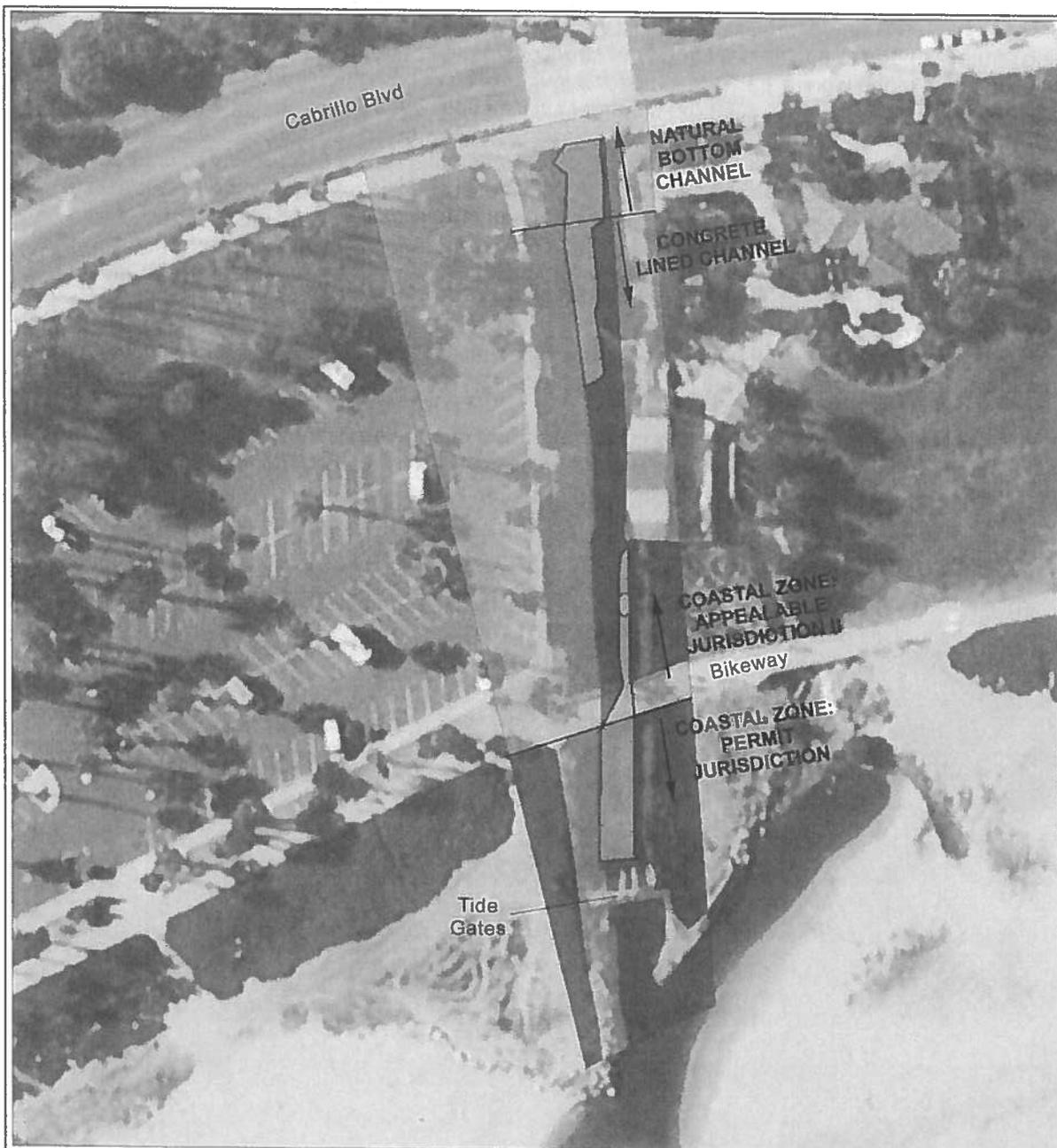
The following measures are recommended to avoid impacts on biological resources:

1. A qualified biologist will provide environmental training for all workers. This includes a description of special-status species that could be present and what to do if any are observed.
2. A qualified biologist will check the channel immediately prior to sediment removal to verify that no southwestern pond turtles are present.
3. Water should be pumped out of the channel using the existing pumps to discharge to the lagoon prior to sediment removal to minimize turbidity. If continued pumping is required during sediment removal, it will be discharged to a settling basin/tank. After the sediment is removed, any visible turbidity will be allowed to settle prior to pumping out the remaining water to the lagoon, or pump it to a settling basin. Turbidity will be monitored at the discharge point when water is first pumped out after channel clearing.
4. During repair of the channel walls, if wet concrete comes in contact with surface water, the pH of that water will be tested. If the pH is greater than 8.5, the water will be pumped into a vacuum truck and disposed off site.

5. For repair of Tide Gate #3, qualified biologists will sweep the area adjacent (ocean side) to the gates with a seine (if feasible due to boulders and other obstructions on the bottom) to herd as many tidewater gobies as possible out of the work area. The seine (or a longer one) will then be used as a block net to prevent fish from reentering the work area. After the cofferdam is installed, water between it and the gates will be pumped down to no more than one foot deep using a screened pump (mesh 1/8-inch or less) to allow biologists to capture and relocate any tidewater gobies and other native fish present prior to opening the tide gate. Once the gate is repaired and storm drain outlet cover replaced, water will be allowed to rise within the cofferdam to the same level as in the lagoon prior to removal of the cofferdam.
6. The non-native herb of grace will be completely removed from the site (including roots), bagged, and disposed in a landfill to prevent spread to other areas.
7. Emergent vegetation on natural bottom sediments adjacent to Cabrillo Boulevard should be cut/mowed to ground/water surface level in the fall prior to runoff events.
8. Sediment removal from the concrete lined channel as part of ongoing channel maintenance should occur in the fall prior to runoff events and at the end of the rainy season (as needed, depending on amount of deposition) to minimize sediment available for colonization by vegetation.

## 5.0 References

ESA PWA. 2013. Mission Creek Lagoon – Laguna Channel Restoration Project, Existing Conditions Report, Final. Prepared for City of Santa Barbara. January 17.



**Vegetation Type**

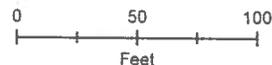
-  Disturbed/Developed
-  Open Water
-  *Schoenoplectus californicus* marsh
-  *Schoenoplectus californicus* and *Bacopa monnieri* marsh
-  Unvegetated



City of Santa Barbara

Figure 1

**Vegetation Map**



**RELATED LOCAL COASTAL PLAN POLICIES**  
**236 E. Cabrillo Blvd**  
**Laguna Pump Station**

**GENERAL POLICIES**

**Policy 1.1** The City adopts the policies of the Coastal Act (Public Resources Code Sections 30210 through 30263) as the guiding policies of the land use plan.

**Policy 1.2** Where policies within the land use plan overlap, the policy which is the most protective of the resources, i.e. water, air, etc. shall take precedence.

**Policy 1.3** Where there are conflicts between the policies set forth in the land use plan and those set forth in any other element of the City's existing General Plan or existing regulations, the policies of the land use plan take precedence.

**WATER AND MARINE ENVIRONMENTS POLICIES**

**General Biotic Resources**

**Policy 6.1** The city, through ordinance, resolutions, and development controls, shall protect, preserve, and, where feasible, restore the biotic communities designated in the City's Conservation Element of the General Plan and any future annexations to the City, consistent with PRC Section 30240.

**Policy 6.2** The City will support and encourage the enforcement of all laws enacted for the purposes of preserving and protecting marine resources, maintaining optimum populations of marine organisms and maintaining the quality of the marine environment for the protection of human health.

**Creek Environments**

**Policy 6.8** The riparian resources, biological productivity, and water quality of the City's coastal zone creeks shall be maintained, preserved, enhanced, and, where feasible, restored.

**Policy 6.9** The City shall support the programs, plans, and policies of all governmental agencies, including those of the Regional Water Quality Control Board with respect to best management practices for Santa Barbara's watersheds and urban areas.

**Policy 6.10** The City shall require a setback buffer for native vegetation between the top of the bank and any proposed project. This setback will vary depending upon the conditions of the site and the environmental impact of the proposed project.

## **OCEAN DEPENDENT ACTIVITIES POLICIES**

**Policy 7.5** Land area inland of the proposed easterly breakwater shall be designated to pennit and encourage ocean-oriented industrial uses.

## **VISUAL QUALITY POLICIES**

**Policy 9.1** The existing views to, from, and along the ocean and scenic coastal areas shall be protected, preserved, and enhanced. This may be accomplished by:

- (1) Acquisition of land for parks and open space;
- (2) Requiring view easements or corridors in new development;
- (3) Specific development restrictions such as additional height limits, building orientation, and setback requirements for new development;
- (4) Developing a system to evaluate view impairment of new development in the review process.

**Policy 9.3** All new development in the coastal zone shall provide underground utilities and the undergrounding of existing overhead utilities shall be considered high priority.

**Policy 9.5** All parking facilities shall be screened from public view in a method suggested in the City's Scenic Highways Element of the General Plan.

## **PUBLIC SERVICES POLICIES**

**Policy 11.5** All new development in the waterfront area, excepting Stearns Wharf, shall provide adequate off-street parking to fully meet their peak needs. Parking needs for individual developments shall be evaluated on a site-specific basis and at minimum be consistent with City Ordinance requirements.

## **LAND USE POLICIES**

**Policy 12.2** New developments within the City's Waterfront Area shall be evaluated as to a project's impact upon the area's:

- (1) Openness;
- (2) Lack of Congestion;
- (3) Naturalness; and
- (4) Rhythm.