

**OCEANO DRAINAGE PROJECT**  
At Highway 1 and 13th Street  
**San Luis Obispo County Public Works Department**

**300465/ED11-173**

**HABITAT MITIGATION AND MONITORING PLAN**

---



**San Luis Obispo County**  
**Department of Public Works**

**November 2012**

## **SUMMARY**

This Habitat Mitigation and Monitoring Plan (HMMP) for the Oceano Drainage Project provides a comprehensive approach for the restoration, enhancement, and replacement of wildlife habitat temporarily lost as a result of proposed storm drain improvement activities.

The project would alleviate existing drainage issues and will result in the disturbance of approximately 14.4 acres and 12,500 cubic yards of cut and fill. The proposed project includes improvements within County Right of Way and on private property. The Oceano Drainage Project (Project) is located alongside the State Highway 1 in Oceano, beginning at the intersection of Paso Robles Street and Highway 1 and terminating approximately 1,250 feet to the southwest at Arroyo Grande Creek, in the San Luis Bay Coastal and Inland planning areas. The project will treat storm water runoff with LID solutions and improve water quality.

This HMMP includes creek protection measures, best management practices, and a revegetation plan. This plan identifies 14.4 acres for restoration of disturbed habitat, and includes measures for restoration and revegetation of all temporarily disturbed areas, protection measures, standards for revegetation, a monitoring program to ensure proper implementation and maintenance of restored areas, and performance criteria to determine success. This plan will be implemented prior to and during construction activities.

The Project will improve water quality by allowing additional settling time for sediments in the newly constructed sediment basin, so cleaner storm water flows to Arroyo Grande Creek. The Project will also improve water quality by moving storm water off of existing roads, which contain oil and other road-associated contaminants, & directing water to an underground pipeline, a sediment basin, and natural basin where the water can pass through existing bio filters and into Arroyo Grand Creek. Currently, this same storm water picks up road contaminants and contributes to flooding of local residents before finally reaching Arroyo Grande Creek.

## **PROJECT DESCRIPTION**

The proposed improvements include new drainage inlets and conveyance of drainage by an underground pipe, south, to a new concrete sedimentation basin located within the RV storage lot. Runoff will discharge into Arroyo Grande Creek through an existing flap gate in the willow riparian woodland area adjacent to the RV storage lot (situated on Oceano Airport property) and a new box culvert. Additionally, roadside infiltrators will be installed and utilized for the Project to capture and treat first flush storm water runoff. The drainage inlets will connect into a new underground storm drain system.

The Project includes regular maintenance of both basins (existing willow woodland and new concrete sediment basin) to remove trash and sediment. Additionally, the Project includes occasional willow trimming/topping within the existing willow woodland to meet FAA and the Caltrans Division of Aeronautics requirements since it is within the Runway Protection Zone (RPZ). Trash removal would occur by hand and sediment removal would be conducted using hand tools and the limited use of an excavator and haul truck. The volume of sediment removal would vary from year-to-year, and in some years sediment removal may not be required at all.

The anticipated area of disturbance for construction of the Project is 14.4 acres (629,000 square feet). Overall, the construction duration is anticipated to be five (5) months.

Clearing debris and sediment from the new concrete basin would allow it to continue to function as a settling pond and prevent vegetation from growing within the newly-constructed basin. Since this concrete basin provides flood control functions, preventing vegetation establishment within the basin will discourage wildlife from using it as habitat which minimizes and avoids impacts to sensitive species. Access to the concrete basin will be via an access ramp off of Delta Street and will not impact the willow riparian basin or wildlife habitat.

### **EXISTING CONDITIONS**

Based on the search of the CNDDDB inventory and visual observations of the Project site, there is no potential for federally listed plant species to occur within the Project site. Appendix B of the Mitigated Negative Declaration prepared for the Project includes the species considered and evaluated. This evaluation is based on presence of suitable habitat for certain sensitive plant species. No impacts to Federally-listed plants are expected due to this Project. As such, no minimization measures for special status plants are recommended.

There are no seasonal wetlands that will be affected by project construction. Permanent disturbance to areas within the ordinary high water mark of Arroyo Grande Creek will occur within the upper portion of the channel which is typically dry outside of storm events. Four plant community types occur within the Project Area including willow riparian woodland, coyote brush scrub, ruderal (weedy) grassland, and a lone stand of eucalyptus trees.

### **PROJECT IMPACTS**

Storm water will continue to filter through basins into Arroyo Grande Creek. Although this project will create one additional outlet into Arroyo Grande Creek, storm water is anticipated to be cleaner than current conditions with the addition of the new sediment basin.

Most of the 14.4 acres of disturbance will occur as a result of raising of the RV storage lot and PCV property to increase storage capacity of the new sediment basin. This area will continue to function as an RV storage lot once project construction is complete; therefore, the area will be compacted but no hydroseed will be applied.

The Project will result in 0.014 acre of permanent disturbance to coyote brush scrub and nonnative grassland as a result of the new culvert through the existing levee. The Arroyo Grande Creek low water channel, which contains constant flowing water as a result of releases from Lopez Dam, will not be disturbed. The culvert would be located approximately 0.65- to 0.76-mile upstream from Arroyo Grande Creek's outlet to the ocean. To offset permanent disturbance, the disturbed area surrounding the new culvert will be hydroseeded with a native seed mix (Table 2).

Willow trimming is proposed within the willow riparian woodland. This area is considered "Environmentally Sensitive Habitat Area" by the Coastal Commission. This area is highly disturbed as it is regularly used by trespassing transients as living quarters. By implementing a regular maintenance program, this area would be cleaned up and cleared of trash which could potentially attract wildlife predators of sensitive species. Thus, the basin habitat within the woodland would be improved by maintenance activities. The willow riparian woodland is bordered by the airport, the north levee, and an RV storage lot. No construction activities will

impact this habitat. Occasional willow trimming/topping would occur to meet FAA and the Caltrans Division of Aeronautics requirements within the RPZ.

With the exception of occasional trimming or topping, no additional disturbance will occur within the willow riparian woodland area. This area currently functions as a basin for storm water from the surrounding area. The new sediment basin will become the primary feed to this basin. Water will pool in this area and outlet to Arroyo Grande Creek, as it does now. Surveys would be conducted prior to trimming/topping activities if they occur within the nesting bird season to avoid disturbing nesting birds.

Up to 4 of the 30 eucalyptus trees will be removed to facilitate the construction of roadside ditches and inlets along Highway 1. The four trees are approximately 1 to 5 feet west of Highway 1 and are 80", 16", 60", and 24" dbh. If trees will be removed during nesting bird season, surveys will be conducted prior to any removal activities. With the implementation of this avoidance measures, and because these trees do not provide habitat for monarchs, no impacts to sensitive species are anticipated as a result of tree removal and construction of the above referenced project components. These trees will be replaced at a 2:1 mitigation ratio with tree species that are native to the area.

#### **SITE PREPARATION, PLANTING MATERIALS, AND ESTABLISHMENT**

To offset the 0.014 acre of permanent disturbance, a 0.042-acre area surrounding the new culvert will be hydroseeded with the native seed mix shown in Table 2.

The four eucalyptus trees will be replaced at a 2:1 mitigation ratio with tree species that are native to the area. Table 1 contains specific mitigation ratios per tree proposed for removal.

Onsite mitigation is not possible due to State ROW issues and FAA airspace issues. Therefore, replacement trees will be planted off site on the County Oceano Park property. This property is within the Coastal Zone and is a source of recreation. The trees will be planted around the lagoon. Exact locations will be determined in coordination with County Park staff to allow for the lagoon/high water table and to prevent future root rot and ensure the survival of the trees.

**Table 1: Mitigation Strategy**

Impact	Mitigation	# and species
0.014 permanent impacts to coyote scrub & non-native grassland	Enhance 0.042 acre area of habitat along levee (3:1 ratio)	Revegetate disturbed area along levee with native hydroseed mix (Table 2)
Loss of 1 80" eucalyptus	Replace at 2:1 ratio	2 western sycamores (1 gallon)
Loss of 1 16" eucalyptus	Replace at 2:1 ratio	2 coast live oaks (1 gallon)
Loss of 1 60" eucalyptus	Replace at 2:1 ratio	2 western sycamores (1 gallon)
Loss of 1 24" eucalyptus	Replace at 2:1 ratio	2 coast live oaks (1 gallon)

**Table 2: Native Hydroseed Mix**

Species name	Common name	lbs per acre
<i>Bromus hordeadeus</i>	Blando brome	40
<i>Trifolium hirtum hykon</i>	Hykon rose clover	40
<i>Vulpia myuros var. hirsute</i>	Zorro annual fescue	40

## SUCCESS CRITERIA

The planting site shall be maintained and monitored for three years or longer, depending on growth and survival. To determine whether this HMMP achieved success, replacement tree survival must total 6 trees (8 trees x 70%).

Permanent disturbance will affect a 0.014-acre area (609 square feet). To offset these impacts at a 2:1 ratio, a 0.042-acre (1,829 square feet) area will be revegetated via hydro-seeding with a native, County-approved seed mix once construction activities are completed.

We expect that some mortality will occur within the first year or two. If mortality is such that the goal of 70% survival is not attained, then replacement planting will take place. Planting shall occur in the fall and winter to maximize likelihood of success and shall be spaced in a natural, random manner to mimic distributions normally found near Arroyo Grande Creek.

## LONG-TERM MAINTENANCE

For the plant establishment period (at a minimum three years after planting), annual status reports shall be submitted to the Department of Fish and Game. These reports shall assess the condition of the trees (observations on health and growth), make recommendations, and include information regarding the previous year's maintenance schedule, observations, and survival counts.

If success criteria are not met, then an analysis of the failure will be provided along with recommended remedial action. If appropriate, additional work will be performed to correct the deficiency. The monitoring period will be extended for the appropriate length of time following any remedial action. Should enhancement planting establishment fail to meet designated performance criteria, an intensive planting program and/or contingency enhancement site will be developed as an alternate. Implementation, monitoring, and long-term maintenance procedures are the responsibility of San Luis Obispo County Public Works Department and will be completed under the direction of a qualified restoration specialist.