

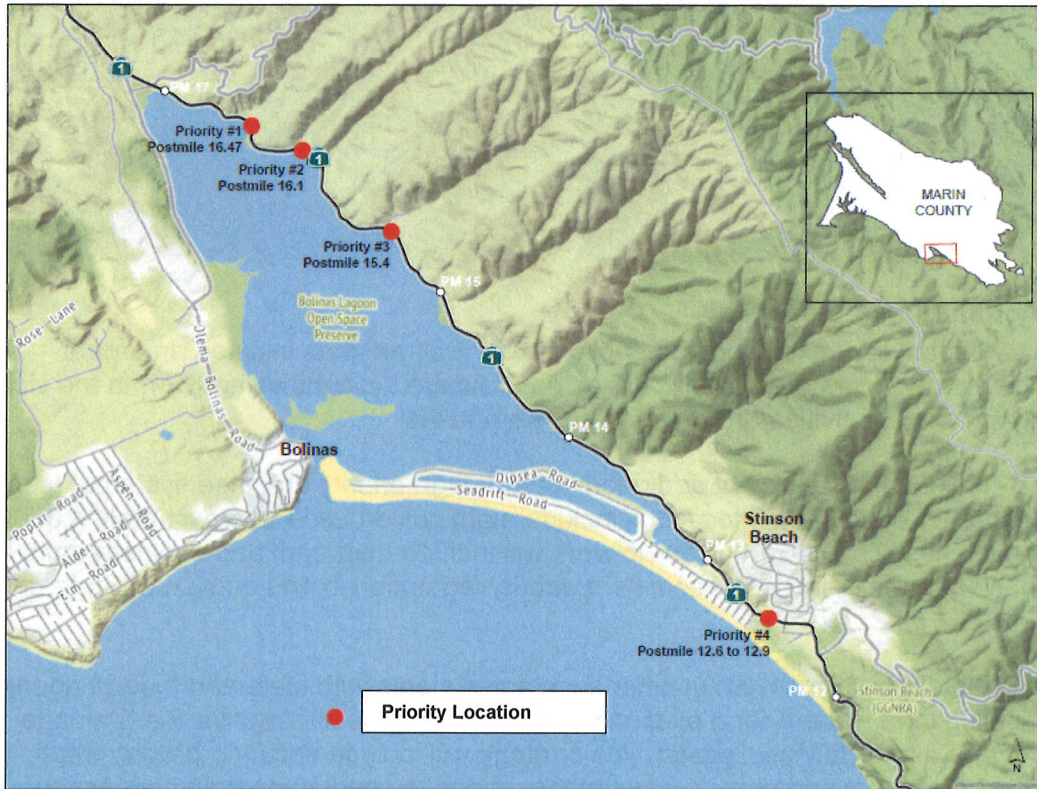
DRAFT

## Bolinas Lagoon Roadside Drainage Maintenance

Marin County State Route 1 — PM 12.56/17.01

### Location

At several locations on State Route 1 (SR1) near Bolinas Lagoon, from north of Stinson Beach to Fairfax-Bolinas Road in Marin County



### Summary:

Four drainage systems, including culverts and ditches, have become clogged with sediment, forcing stream flow to sheet across SR1. Recent winter storms in 2016 and 2017, with higher than average precipitation levels, have resulted in excessive sediment transport from upstream properties outside of the State right-of-way, completely burying culverts and roadside ditches. Storm flows have resulted in 18 to 24" flood flows, thus resulting in closures of SR1. With the culverts blocked, sediment from the streams is transported onto and across the roadway, leaving behind large quantities of material. This material must be cleared before the SR1 can be opened, thus increasing roadway closure times. These conditions have severely impacted public safety, caused unreasonable traffic delays to all users (drivers, bicyclists, and pedestrians), and compromised essential public services.



### **Caltrans Action Plan**

To ensure safe roadway conditions and public safety, Caltrans has initiated an urgent maintenance activity to restore critically impacted drainage systems along SR1, in the vicinity of Bolinas Lagoon. The activities are divided into two phases:

**Phase 1-** Removal of sediment and debris at four high priority drainage systems. (see location map). These priority locations include eight culverts and approximately 4,050 feet of drainage ditches. The culvert clean-up work will include upstream and downstream clearing of drainage channels/ditches of sediment/debris/vegetation in and outside of State right-of-way.

**Phase 2-** Obtain programmatic maintenance agreements with state and federal agencies and adjoining land owners for a mid/long-term maintenance strategy for the drainage infrastructure along Bolinas Lagoon. The strategy will include securing programmatic (10 years) environmental and right-of-way authorizations to conduct on-going necessary maintenance and upkeep of drainages systems, including regulatory permits and permits to enter and construct. This effort will ensure that the Department can remove excess sediment and maintain the drainage system on an as-needed basis.

### **Benefits**

Restoration of the drainage systems will address the urgent need for appropriate drainage conveyance, preservation of the health, safety and welfare of all users, protection of property, and maintaining and enhancing species habitat and ecosystem functions.

### **Partners and stakeholders**

Caltrans will be working collaboratively with a number of agencies and stakeholders having jurisdiction and interest in this program, including, but not limited to, the following agencies:

- US Fish and Wildlife Service
- National Marine Fisheries
- US Army Corps of Engineers
- National Park Service
- California Department of Fish and Wildlife
- California Department of Parks and Recreation

- Regional Quality Control Water Board
- California Coastal Commission
- Gulf of Farallones National Marine Sanctuary
- County of Marin
- Bolinas Lagoon Advisory Council
- Audubon Canyon Ranch

### **Right-of-Way**

Work will require Permits to Enter and Construct from several property owners (Phase 1 information only):

- Location 1: Audubon Canyon Ranch Inc., (east of R/W) & County of Marin (west of R/W)
- Location 2: Audubon Canyon Ranch Inc., (east of R/W) & County of Marin (west of R/W)
- Location 3: All in State R/W
- Location 4: Aronson Trust, and Higgins, Stinson Beach (west of R/W)

### **Proposed Schedule (Phase 1)**

- Interagency meeting: 7/27/18 (T):
- Project Approval/Environmental Document (PA&ED):8/13/18 (T)
- Permit Applications submittal: 8/3/18-- 8/10/18
- Resource agency concurrence to begin work: 8/31/18 (T)
- Right-of-way Certification: TBD
- Restoration work: 9/4/2018 – 10/31/18

### **Budget**

Funding source: State only funding

Capital cost: TBD.

### **Equipment Needs**

Equipment for this work will include but not limited to; excavators, dump trucks, grader, loader, tunnel mucker, Vactors, chainsaws, chippers, and haul trucks.

