



County of Ventura Watershed Protection District Proposition 1E Grant Application South Oxnard Stormwater Flood Management Project Attachment 9: Program Preferences

The Project is eligible for SWFM funding, is not receiving State funding for flood control or flood prevention projects pursuant to PRC §5096.824 or §75034, and will provide multiple benefits:

The South Oxnard Stormwater Flood Management Project (Project) is not receiving funding as a part of the State Plan of Flood Control. Ventura County is located outside the boundaries of the Central Valley.

The Project does offer multiple benefits including:

- The most immediate and significant benefit is the stormwater flood management benefit. The primary goal is to improve stormwater flood management in South Oxnard by increasing capacity in the J Street Drain from a 10 year capacity to a 100 year or 1% annual chance capacity. The existing channel, built in 1956 and concrete-lined in 1961, has a 10 year capacity. This channel must be improved to at least a 100 year capacity to protect the residents, businesses, and public facilities in danger of flooding at the current channel capacity.
- Of equal importance is the benefit of protection to the Oxnard Waste Water Treatment Plant (OWWTP) located adjacent to Phase 1 of this Project. This plant serves 225,000 residents and is located close to the Ormond Beach Lagoon, a sensitive habitat draining to the ocean. In a minor storm in 2010, this plant was flooded and at risk of releasing untreated sewage effluent into the Lagoon, drainages, residential properties, and roads due to electrical failure of inundated equipment. It is vital to the health of the community, the health of the lagoon, and to the ocean that this plant be protected.
- J Street Drain is currently cleaned out annually in the dry season. A trash boom installed near the upstream end of Phase 1 is expected to capture at least 9 tons of trash annually, in addition to the current Phase 2 cleanout tonnage, and prevent its conveyance to the ecologically sensitive Ormond Lagoon and ultimately the “Eastern Pacific garbage patch” in the Pacific Ocean.
- Phase 1 implementation includes a Beach Elevation Management Plan (BEMP). The Ormond Lagoon inlet normally remains in a closed condition due to sand accretion on Ormond Beach, but during most winters it breaches naturally to allow free outflow during storms and some high tides. On January 18, 2010, the inlet remained closed during a minor storm event and caused upstream flooding. To avoid recurrence of such flooding, the WPD developed the BEMP, which identifies a set of threshold environmental conditions that together activate the need for reducing the height of the sand berm (“beach grooming”) surrounding the lagoon to eliminate backwater. Once these threshold conditions are observed, a predetermined list of actions would be implemented to ensure the opening of the lagoon outlet if the water level exceeds a target safe elevation, thereby preventing flooding of developed properties, particularly the OWWTP.



- The Project provides protection of public health and safety. Flooding will continue to occur on J Street if the Project is not implemented. There are avoided costs due to street flooding, and protection of buried utilities from erosion. The new channel will offer protection from erosion damage. A 33” sewer trunk line owned by the City of Oxnard is located +/- 2ft from the channel wall and runs parallel the length of the Project.
- Reduction of pollutants conveyed via the J Street Drain to the Ormond Lagoon and Pacific Ocean improves an increasingly rare coastal habitat that supports threatened and endangered species and is an important component of the Pacific Flyway.
- The Ormond Lagoon is a coastal estuary that supports endangered tidewater goby, endangered California least tern, and threatened western snowy plover. The gobies breed in the lagoon, and the terns forage there during the nesting season. During periods of high storm runoff, the lagoon may breach and discharge to the ocean, permitting relocation of gobies from Ormond Lagoon to other estuaries such as those at the mouths of the Ventura and Santa Clara Rivers. This improves genetic diversity of the regional goby populations. Reducing trash to the lagoon improves the habitat of these species.
- Reduction of trash conveyed to the Ormond Lagoon may improve endangered tidewater goby breeding success. Gobies create burrows in the lagoon substrate. Trash depositing on the lagoon bottom could obstruct new burrow creation, or could smother existing burrows. Furthermore, some birds may collect small bits of trash and mistakenly feed them to their young; collecting trash at the boom, thereby preventing its conveyance to the lagoon, may reduce the occurrence of this.

Expand environmental stewardship:

The project will improve and expand the environmental stewardship required to enhance the Ormond Beach Lagoon, an ecologically sensitive habitat, by taking steps to avoid discharge of untreated sewage. It will also prevent a minimum of 9 tons of trash deposited annually into this sensitive habitat, thus reducing the pollution deposited into the lagoon and, ultimately, the ocean.

Practice integrated flood management:

The Project allows for better emergency preparedness and response. First, and possibly most important, the Project includes the BEMP which identifies the threshold environmental conditions that activate the need for reducing the height of the sand berm surrounding the lagoon to eliminate backwater and associated flooding of residences, streets, and the OWWTP.

Second, the project will virtually eliminate the flooding of J Street within the project area. Without the project, traffic will have to be diverted on to unflooded streets in the vicinity requiring the cities to expend funds to manage the diversion and the resulting traffic problems on already heavily traveled streets. Flooding of J Street also imperils the response of emergency vehicles to residents within the J Street area. During a flood, as was recently demonstrated during Hurricane Sandy, inability of emergency vehicles to respond during an emergency can have tragic consequences.



The Project will eliminate the flood threat within the Project area up to the 100 year event. This will remove 58 residences, 13 multi-family dwellings, and 5 commercial buildings from the floodplain and provide substantial protection to the OWWTP.

The channel improvements are designed to meet today's standards utilizing current technological advances in materials design. The Project replaces the current channel, which is 57 years old and near the end of its useful life. While it is impossible to precisely predict future climatic changes, the Project is designed to take into consideration predicted climatic changes including rising sea levels. For these reasons, the Project is more sustainable and provides a better stormwater flood management system than currently exists.

As discussed above, the Project provides for an enhanced floodplain ecosystem, particularly for the Ormond Beach Lagoon and the ocean by protecting the sensitive habitat in the lagoon.

When the cover to Phase 2 is completed in Phase 2B, bioswales will be added on either side of the completed box which will utilize LID techniques to help store and infiltrate runoff while protecting the groundwater.

Protect surface water and groundwater quality:

As discussed above, the surface water will be protected through the removal of trash that would otherwise wash into the Ormond Beach lagoon. Currently, some trash is collected once annually in the dry season. With the trash boom in place and with quarterly maintenance to remove collected trash, it is expected that significant improvement of surface water quality in the lagoon and in the open channel downstream of the trash boom would occur.

Groundwater quality will be protected by the use of bioswales in Phase 2B to store and infiltrate runoff. Because of the nearby street, runoff tends to be polluted by substances such as grease and oil from adjacent traffic. After the City of Oxnard completes the linear park feature and plants the bioswales, much of this pollution will filter through vegetation prior to reaching groundwater.

Ensure equitable distribution of benefits:

South Oxnard is a low income, largely minority, community within the City of Oxnard. As such, it is an environmental justice community embedded in the larger, mixed neighborhood City. While they currently are not included in the FEMA-defined floodplain, clearly, without this Project, they will be in any future map revisions. Families tend to struggle to meet the basic needs of the household and would find it difficult to pay the flood insurance which would be required by inclusion in a revised FEMA floodplain map. Although they would benefit by having flood insurance because of the dangers of flooding, most would not consider this coverage unless they were required to do so. This means that, in case of flood damage to their homes, help in repairing the damage would be severely limited and, for most, would cause major hardship. By removing their homes and businesses from flood danger, the residents are relieved from the threat of additional expenses that many cannot afford.



Once Phase 2B is completed, the J Street neighborhood will also be protected from the effects of the pollution which currently collects within the open channel that runs through the middle of their community. The presence of the trash boom at the upstream end of Phase 1, with its quarterly cleaning, will remove trash from the neighborhood in a timelier manner, not allowing it to remain in place for long periods of time while it attracts pests and vermin.

Currently, pedestrians must utilize the sidewalks on either side of J Street, a heavily traveled thoroughfare. With the completion of Phase 2B, pedestrians will be provided with a median that will allow them to walk or ride bicycles farther removed from traffic.

Most importantly, when Phase 2B is completed, the Project will remove an open channel with a fence that now divides the community. Access from one side of J Street to the other is limited to three surface level crossings. The Project will help to unify the community by removing physical and visual barriers that currently exist. While the safest access will remain the three street crossings, the feeling of a single unified community will enhance the social interactions necessary to build a strong community spirit.