

APPENDIX D

EIGHT-STEP DECISION MAKING PROCESS

LOS OSOS WASTEWATER PROJECT
**Executive Order 11988 – Floodplain Management
Eight-Step Decision Making Process**

Executive Order 11988 (Floodplain Management) requires federal agencies “to avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of the floodplain and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.” FEMA’s implementing regulations are at 24 CFR Part 9, which includes an eight step decision making process for compliance with this part.

This eight step process is applied to the proposed LOWWP. Portions of the existing Project area are within the 100-year floodplain of Los Osos Creek and the 100- and 500-year floodplain of Morro Bay. The steps in the decision making process are as follows:

Step 1 Determine if the proposed action is located in the Base Floodplain.

The LOWWP involves the construction and operation of wastewater collection, treatment and recycled water reuse facilities. The majority of LOWWP facilities, including the treatment plant, pocket pump stations, recycled water leach fields and most pump stations, will be located outside of the 100- and 500-year floodplains.

A portion of the LOWWP is within the 100-year floodplain (“Base Floodplain”) of Los Osos Creek and partially within the 100-year and 500-year floodplain associated with Morro Bay (according to Flood Insurance Rate Maps #06079C1028F and #06079C1029F dated August 28, 2008). The floodplains in relation to the community and the LOWWP are depicted on Exhibit 3.2-1 of the Environmental Report. The LOWWP will not place any subsurface pump stations within the 100-year floodplain. Four subsurface pump stations (Baywood, West Paso, Lupine and Solano) will be within the 500-year floodplain. The stand-by power station structures for the Lupine and Solano pump stations within the 500-year floodplain will be on-site. The other two floodplain pump stations (Baywood and West Paso) will share a remote stand-by power station structure located outside floodplains. As large pump stations, these four facilities are classified as “critical actions.” However, these four pump stations do not serve critical emergency facilities such as hospitals, police or fire stations, or care homes.

The Los Osos Creek drainage defines a portion of, and lies within, the 100-year flood hazard area. The conveyance pipelines running parallel to LOVR would span an approximately 230 foot wide cross sectional region of Los Osos Creek that is within this 100-year flood hazard area.

Step 2 Early public notice (Preliminary Notice)

A public notice concerning the LOWWP will be published in the San Luis Obispo Tribune newspaper together with the Notice of Availability of the draft NEPA document. The Tribune is the local and regional newspaper for the San Luis Obispo County area, including the floodplain area of Los Osos Creek and Morro Bay.

An Environmental Impact Report for the LOWWP was prepared and certified to comply with the California Environmental Quality Act. A noticed public hearing was held for the proposed project on September 29, 2009. In addition, periodic updates and opportunities for public comment were provided at multiple County Board of Supervisors and Planning Commission meetings.

Step 3 Identify and evaluate alternatives to locating in the base floodplain.

A portion of the existing community to be served by the LOWWP is within 100- and 500-year floodplains. The collection lines and pump stations must serve existing development, including residences and businesses within the 100- and 500-year floodplains. In order to serve existing development located within floodplains, pipelines and pump stations in a gravity collection system must also be located within the floodplains. The LOWWP service area has homes and businesses lower in elevation than the main conveyance line to the treatment plant. The wastewater generated by these homes and businesses must be collected at low points and pumped uphill to flow to the treatment plant. The collection lines will be buried underground, and will therefore have no adverse impacts. The four pump stations within floodplains will also be buried underground, with two above ground stand-by power stations located within the 500-year floodplain.

Relocating the stand-by power station structures for the Lupine and Solano pump stations outside of the 500-year floodplain was considered, but rejected. The small structures will be located within neighborhoods among existing residential structures. Therefore, they will not be detrimental to floodplain functions and values. The power stations are not critical to returning the pump stations to service after flooding because the pump stations themselves would require a longer period of maintenance than mobilizing a portable power supply to run the pump station. The portable power supply would be used until the permanent stand-by power station could be repaired or replaced.

Alternatives to the proposed gravity collection system were evaluated and determined to be infeasible. Collection system alternatives to the gravity system would not have a lower impact on floodplains. Alternative systems consisting of "septic tank effluent pump" (STEP) collection, low pressure collection, or vacuum systems would place pumps, valve pits, and/or STEP tanks serving approximately three hundred homes within the five hundred year floodplain.

STEP tanks would become inoperable if subjected to floodwaters; damage to electrical connections from flooding could render the tanks inoperable after flood waters recede, leading to a long recovery time. Low pressure collection systems would require similar recovery periods, with repairs to several hundred pumps and electrical connections necessary. Vacuum systems would likely suffer damage to the vacuum stations, as well as to individual valve pits at residences.

Step 4 Identify impacts of proposed action associated with occupancy or modification of the floodplain.

Impact on natural function of the floodplain

The LOWWP would not affect the functions and values of the 100-year floodplain. The LOWWP would not place within 100- or 500-year floodplains structures which would impede or redirect flood flows. Collection lines and pump stations will be placed underground, resulting in no fill added to floodplains. The small stand-by power structures for the Lupine and Solano pump stations will be located within neighborhoods among existing residential and recreational structures. Therefore, they will have no measurable effect on floodplain functions and values. The collection system will not impede or redirect flood flows. Other than the four pump stations and two stand-by power structures, all other above ground facilities would be located outside of the 100- and 500-year floodplains.

Although the LOWWP could facilitate an increase in population and housing within the service area, any increase must comply with the planned growth identified in the Local Coastal Plan. The LOWWP would not facilitate development in the 100-year floodplain at all, and will not facilitate development in the 500-year floodplain to any greater degree than in non-floodplain areas of the community. No development of critical facilities (hospitals, emergency services, fire stations, etc.) within the 500-year floodplain served by the project is anticipated by existing land regulations and community plans. Any new development within floodplains would be required to comply with applicable ordinances and building codes.

Impact of the flood water on the proposed facilities

The collection lines, being underground, would not be affected by flood water. The four pump stations in floodplains, if inundated, may not be able to keep up with flood waters infiltrating through other flooded structures, may have their electrical components damaged by salt water, may become clogged by sand or other debris, or they may be shut down to reduce the amount of damage. Inundation and/or cessation of pumping could result in wastewater surfacing at the affected pump stations within the first hour of flooding. Depending on the extent of maintenance required after water levels recede, portable pumps and power supplies could be used until maintenance crews could bring the units back into service. In a catastrophic flood, sand and other debris could clog collection lines and pump station vaults such that more extensive maintenance would be required before wastewater service could resume.

If the four pump stations were out of service due to flooding, critical emergency facilities would not be affected because none of these facilities are served by the floodplain pump stations. However, public exposure to wastewater could occur.

Step 5 Design or modify the proposed action to minimize threats to life and property and preserve its natural and beneficial floodplain values.

The LOWWP is designed to minimize floodplain impacts. Where facilities are required to serve existing development located within floodplains, facilities are buried to the extent feasible. No above ground structures are located within the 100-year floodplain. Pump stations located within the 500-year floodplain are also buried. Two stand-by power structures are co-located with the Lupine and Solano pump stations within the 500-year floodplain. Because the stand-by power structures are located on vacant parcels within developed residential and recreational neighborhoods, they will have no effect on the natural and beneficial values of the 500-year floodplain.

Step 6 Re-evaluate the proposed action.

The project will not expose any segment of the population to flood hazards because it does not include a housing component, and will not facilitate development in the floodplains to any greater degree than non-floodplain areas of the community. The project will not aggravate the current flood hazard because the facilities would not impede or redirect flood flows. The project will not disrupt floodplain values because it will not change water levels in the floodplain, and will not reduce habitat in the floodplain. Therefore, it is still practicable to construct the proposed project within the floodplain.

Alternatives consisting of locating the project outside the floodplain or taking “no action” are not practicable.

Step 7 Findings and Public Explanation (Final Notification)

After evaluating alternatives, including impacts and mitigation opportunities the County determined that the proposed project is the most practical alternative. The County Board of Supervisors adopted the LOWWP Final EIR and Mitigation Monitoring Program on September 29, 2009 and a Notice of Determination was filed with the County Recorder’s Office and the State Clearinghouse on September 30, 2009.

It is our determination that there is no practicable alternative to locating a portion of the project in the 100- and 500-year floodplains of Los Osos Creek and Morro Bay because:

1. A portion of the community exists within the floodplains, and wastewater collection lines must be installed to collect the wastewater generated at these

homes and businesses.

2. The four pump stations within the 500 year floodplain must be located within the floodplain because there is no practical alternative that would allow wastewater from the parts of the community served by these pump stations to be transmitted to the treatment plant.

1. A “no action” plan would not resolve or improve the existing wastewater problem in the community of Los Osos.

Step 8 Implement the action

The proposed LOWWP will be constructed in accordance with applicable floodplain development requirements.