Fitzgerald Pollution Reduction Program
Task 6.2.1 Written Plan identifying priorities for BMP Implementation

The San Mateo County Resource Conservation District (RCD) is responsible for implementing 10 to 20 targeted BMPs on private lands in the upland watershed of the James V. Fitzgerald Area of Special Biological Significance (ASBS). This watershed contains approximately 1,850 privately owned parcels, the majority of which are in medium to high density near the base of the watershed. The RCD identified and prioritized opportunities to implement best management practices (BMPs) on public and private lands in the watershed of the ASBS. Through implementation of these BMPs, the project seeks to incrementally reduce the delivery of pollutants such as nutrients, pathogens, pesticides, heavy metals, and sediment to the watershed. The implementation will involve 1) a small number of construction projects at selected sites intended to serve a demonstration purpose, 2) outreach efforts providing technical expertise to the broader community, and 3) community-based clean-up efforts.

Identification and prioritization of these BMPs was conducted through engagement with the Fitzgerald Pollution Reduction (FPR) Technical Advisory Committee (TAC), the San Mateo County grant manager, and the Site Selection Committee, as well as reviewing the Microbial Source Tracking Study (MSTS) prepared by the San Francisco Estuary Institute and the University of California, Davis. A draft list of BMPs was developed and circulated for feedback and refined. These BMPs were selected due to their potential to improve water quality through 1) addressing erosion and sediment delivery from rural roads and properties; 2) runoff of heavy metals and pesticides from gardens and landscaping; and 3) runoff of nutrients, pathogens, and sediment from properties with confined animals, including livestock, horses, and dogs. The RCD and Site Selection Committee also considered public visibility of implementation sites and opportunities for outreach to other community members when developing and refining the list of BMPs.

Opportunity: Dog waste
Fecal bacteria from dog waste was found to be a contributing factor in all waterways in the watershed through the MSTS. The best opportunities to effect change related to pick up of dog waste. The RCD proposes to conduct one or more of the following types of BMPs:

- outreach and education to dog-walking groups or other organized dog-related organizations to increase awareness of the impact of dog waste on water quality
- organize one or more community work days to pick up dog waste in community dog walking areas
- identify and install dog waste bags, trash bin installations, and "drains to ocean" type signage in frequented dog walking areas
- communicate with the general public through a variety of means to increase awareness of the impact of dog waste on water quality, including potentially through site visits to properties as part of landscaping assessments/ technical

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assistance and/or visits to the local elementary to educate the students and their families

Opportunity: Confined Animal Facilities
The MSTS detected horse markers in all sampling sites, with highest concentrations in Dean and San Vicente creeks; bovine-associated markers were found in Kanoff and San Vicente creeks. The RCD identified opportunities to demonstrate the efficacy of improvements to livestock facilities located on public and private lands within the watershed to address erosion, sedimentation, and reduction of nutrients, pathogens, and bacteria into the waterways. These BMPs are similar to those used by the RCD's Livestock and Land Program and are listed as follows with reference to the practice number used by the Natural Resources Conservation Service (NRCS):

313 – Waste Storage Facility (Manure Bunker) - including removing aged manures
317 – Manure Composting Facility
342 – Critical Area Planting
373 – Dust Control
382 – Cross and Exclusionary Fence
393 – Filter Strips
410 – Grade Stabilization Structure
412 – Vegetated Waterway
472 – Use Exclusion
512 – Pasture Planting/Rehabilitation
554 – Drainage Water Management
558 – Roof Runoff Structure (Gutters)
561 – Heavy Use Area Protection
575 – Animal Trails and Walkways
587 – Structure for Water Control
606 – Subsurface Drains
636 – Water Harvest Catchment
638   – Water and Sediment Control Basin

Opportunity: Rural Roads and Trails
This opportunity addresses sedimentation and heavy metals runoff from rural roads and trails in the watershed, and especially unpaved, non-County-maintained stretches of road adjacent to local waterways. BMPs include:
- Regrading and resurfacing
- Installing culverts
- Installing filter strips, vegetated swales, sediment basins alongside roadways

Opportunity: Private Gardens and Landscaping
Most of the watershed is made up of urban and suburban land uses and rural ranchette properties. These sites contribute sediment, nutrients and pesticides as well as dog waste into the waterways. The RCD identified opportunities to demonstrate the efficacy of various types of landscaping projects at improving runoff water quality. Priority BMPs to be implemented include:

- Providing backyard habitat/garden report cards to homeowners to help them better understand opportunities to improve water quality runoff issues from their yards, gardens, and landscaping
- Provide awareness and education to homeowners to encourage (more frequent) pick-up of dog waste in backyards
- Provide awareness and education to reduce use of pesticides in backyards
- Installing landscaping projects that incorporate various Low Impact Design (LID) features that improve water quality runoff: e.g. converting lawns to native plantings, installing rain gardens and/or bioswales to slow and filter water runoff on site before reaching nearby waterways, and rain catchment / harvesting projects that relate to improving water quality runoff, i.e., reduces mud in backyards, etc.
- Addressing runoff from residential and/or commercial parking areas/lots to convert to pervious surfaces, install appropriate drainage control structures, and add filtration or sediment basins to filter and slow the runoff