City of Ferndale Water Quality and Drainage Improvement Project

Project Location

The City of Ferndale Water Quality and Drainage Improvement Project (Project) is located in and adjacent to the City of Ferndale in Humboldt County, California (**Figure 1**). More specifically, the Project is located along Arlington Ave, 5th Street, a small portion of Van Ness Ave, and an adjacent agricultural pasture to the north (see Project Area in **Figure 2**). The pasture is owned by the County and is seasonally grazed in the dry season. The Project Area is comprised of roadways, roadway shoulders, the agricultural pasture, and limited trees and shrubs. The area north of Van Ness Avenue is in the Coastal Zone, which is under the jurisdiction of Humboldt County through the Eel River Area Plan (**Figure 3**).

Project Description

The proposed Project involves replacement and new stormwater drainage infrastructure along Arlington Avenue, 5th Street, Van Ness Avenue, and in the agricultural pasture north of Van Ness Avenue (**Figure 2**). In general, the Project includes the replacement of existing storm drain inlets and piping along Arlington Avenue, new piping and swales along 5th Street, enlargement of the drainage swale in the pasture, and creation of a stormwater detention pond in the northern extent of the pasture. The remainder of the Project Description will discuss Project work to occur within the Coastal Zone, which includes areas north of Van Ness Avenue (**Figure 3**).

The existing culvert crossing at Van Ness Avenue (which flows into the pasture) would remain in place, and a second, parallel culvert installed. Five to eight trees and energy dissipating rock would be added to the culvert outlets to reduce potential scouring and erosion. The existing drainage swale through the pasture and proposed stormwater detention basin would be graded and revegetated with native grasses. The swale within the pasture north of Van Ness Avenue would contain a minimum bottom width of three feet and side slopes of 3:1 and daylight to existing grade. The new swale would have an approximate 0.3 to 0.5% slope and maximum excavation depth of three feet. The swale would then transition to a 0.5-acre stormwater detention basin on the County-owned parcel. The detention basin would have 3:1 slide slopes and daylight to existing grade and contain a maximum excavation depth of two feet.

Following Project implementation, the pasture would remain seasonally grazeable which is consistent with current management.

Project Impacts

The agricultural pasture is considered an agricultural wetland. The Project includes planting five to eight trees (alder and/or willow species), and the addition of energy dissipating rock at the outlets of the culverts to reduce potential scouring and erosion. Rock already exists in this location and would be augmented under the Project. The area of rock placement is approximately 80 square feet, and tree planting would be spaced ten feet apart and occur within the outskirts of the rock placement and immediately adjacent to the rock (see **Figure 4**). The placement of rock in the agricultural wetland is considered insignificant because rock is already present at the outlet of the existing culvert, and because the planting of trees and placement of rock would reduce potential erosion and scouring and therefore result in beneficial environmental conditions. Following Project

implementation, the drainage swale and detention basin would be seeded with a CA native pasture grass seed mix, and would remain wetlands (see **Figure 4**).