STORMWATER MONITORING FOR COMPLIANCE WITH MS4 PERMIT (SWRP PROJECT G)

General Project Information

This project includes continuing the storm water monitoring activities as needed to meet the requirements of the City's Municipal Separate Storm Sewer System (MS4) permit.

Current monitoring plan: The City's MS4 Permit requires some monitoring of water quality. The City is currently monitoring three low impact development (LID) demonstration projects for efficacy in reducing pollutants, and measures water quality parameters such as sediment, dissolved oxygen, temperature, bacteria, and nutrients. The monitoring project also includes assessments of physical habitat characteristics and aquatic life bioassessments. The three LID demonstration projects include the City's Municipal Parking Lot 5, where approximately 4,800 square feet of pervious pavers were installed along with two rain gardens, three bioswales, downspout disconnects, and three vegetated strips. Lost Park where 400 square feet of pervious surfaces were installed along with a rain garden and approximately 600 square feet of riparian restoration, and the Crister Bioswale where a natural swale was improved and two vegetated trenches were installed. The monitoring program includes three stationary sampling points within the City, one upstream of all the LID demonstration projects, one between the Crister Bioswale and the Lost Park and Municipal Parking Lot 5 projects, and the third downstream of all three projects. Additionally, the monitoring program includes the analysis of all data collected and comparisons to pre-project data, as well as reporting to the City's website. The City currently spends approximately $32,000/year on monitoring water quality.

Benefits Resulting from this Project

Storm water monitoring activities required by the City's MS4 permit are anticipated to provide the following benefits:

- **Water Quality:** Water quality is expected to be improved because the implementation of water quality monitoring identifies a project's efficacy. The monitoring program will identify potential storm water issues, reduce storm water and dry weather runoff, and increase water quality.
- **Water Supply:** Water supply is not expected to change due to monitoring requirements.
- **Flood Management:** Flood management is not expected to change due to monitoring requirements.
- **Environmental:** The environment is expected to be improved because implementing this project will help reduce pollutants and urban runoff entering area waterways and receiving waters by drawing attention to projects that effectively reduce pollutants.
- **Community:** The community is expected to be improved due to the monitoring data. The data can be used in outreach and education for the community on the benefits of reducing pollutants in receiving water.
- **Estimated Plan Preparation Cost:** The project is currently funded and costs approximately $32,000 per year.

Project Photographs

Photograph 1: City of Chico LID at Lost Park

Photograph 2: City of Chico LID at Municipal Parking Lot 5