Executive Summary

The Dyer Partnership, Engineers and Planners was authorized by the City of Coos Bay to provide a comprehensive Storm Water Master Plan for the downtown/central portion of the City. This master plan will provide the City with a reference that can be used to systematically upgrade its storm water system. The master plan identifies deficiencies within the system, as well as potential deficiencies created by development.

The existing storm water system, serving the 2,300-acre study area, includes approximately 30 miles of piping. Most of the piping was concrete, with corrugated metal piping used for large culverts and outfalls. The majority of the concrete piping was in fair to good condition; the CMP piping was in poor condition.

A significant portion of the study area is below the higher high tide level and is protected by dikes. A tidegate and outfall inventory for the system is located in Section 3. Over 30 tidegates were identified, with many needing repair or replacement due to the poor performance of the tidegates. Many active outfalls without tidegates were identified, but not found on City records or maps.

Record drawings, electronic data, and field investigations were used to model and analyze the existing storm water system. The existing system was divided into 30 watershed basins, and each basin was modeled under current development conditions, as well as 20-yr build out. Each basin was modeled under a 25-yr and 50-yr rainfall event. In basins affected by tidal activity, the basins were modeled with an average high tide of 8 feet, coinciding with peak rainfall runoff. Sections 5 and 6 include the Hydraulic Analysis and Storm Drain Model.

The modeling data was used to identify deficiencies within the City of Coos Bay's storm water system. The problem areas were identified, and project costs for the repairs were generated in Section 7. Each project was assigned a priority number, with Priority 1 Projects having the highest priority, and Priority 3 Projects having a lower priority.

Many of the projects identified were for storm water outfall repairs and upsizing. Field investigations revealed old corrugated metal pipes, and failing tide gates. Due to the low elevations within the City, four new pump stations are recommended to prevent flooding during high tides and rainfall events. Storm water storage options (detention ponds) were explored as an alternative to pump stations, but adequate land within the City was not found.

Detailed cost estimates for each recommended project are located in Section 7. Projects totaling $11.25 million are recommended, of which $8.35 million are Priority 1. A combination of storm water utility fees, system development charges, and grants are

recommended to finance the projects.