## 1.2 Background

The primary concern for the District according to prior Wastewater Facilities Plans is wastewater pollution. Crescent, Oregon, does not currently operate a city-wide wastewater facility, leaving all businesses and residents reliant on individual septic systems. Aged and failing septic systems, coupled with the high permeability of the soils, is resulting in pollution of the local groundwater and the Wild and Scenic Little Deschutes River with high levels of nitrates. The downtown core area of Crescent that includes both commercial and residential zoned land is the critical area for onsite wastewater disposal. The area has a shallow groundwater table that can come at or near (within 24 inches) of the ground surface. Soils in the area are rapidly draining and nitrogen loading to the groundwater is a concern. To make matters worse, the area is platted into small lot sizes. New septic systems cannot be allowed due to high groundwater conditions and hydraulic wastewater loading requirements, leading ODEQ and Klamath County to deny applications. Unfortunately, this means that Crescent can no longer bring in new businesses and/or residents.

In addition to preventing new businesses, the limitations associated with onsite wastewater treatment have forced several businesses to close their doors. The Starlight Café and the Apache Tears Restaurant are examples of businesses that were forced to close due to the onsite wastewater issues. Other businesses, such as the service station located on the corner of Highway 97 and Crescent Cut-off Road, have not been able to expand or repair inadequate systems.

Concerns about pollution and health hazards resulting from wastewater disposal practices through on site systems initiated the formation of the Crescent Sanitary District. In September 1979, a Wastewater Management Plan was developed for the District. The recommended option developed in the management plan included a gravity wastewater collection system with lagoon treatment and land disposal. A more detailed evaluation was conducted in the "Wastewater Treatment Facility Plan," completed in 1983. The selected alternative consisted of gravity collection, stabilization lagoon treatment, and rapid infiltration land application.

Adequate funds were not available at that time for construction of the proposed public wastewater facilities and wastewater disposal is still a major concern in Crescent. The community has an estimated residential population of 535 people within the present service boundary. Crescent is an unincorporated community and population estimates and historical population figures for the community are not included in census information. The District currently provides no wastewater collection and conveyance to the residents within the District's boundary.

High groundwater levels in the area increase the likelihood of groundwater contamination from septic systems. Since well water is the principal source of domestic water supply in the vicinity of Crescent, protecting the quality of the groundwater resource is of high importance. Similar conditions existed in La Pine (located approximately 16 miles north of Crescent), where it was found that private on site systems were polluting the groundwater in that area. Since then, the La Pine Sanitary District has installed a public wastewater system.

Increasing nitrate levels in the ground-water aquifer underlying the Central Oregon City of La Pine and the surrounding area, (which includes Crescent and the Gilchrist area) from contamination of residential septic systems has large public health implications. Health implications result because groundwater is the sole source of drinking water for area residents. A task force steering committee report entitled 'S. Deschutes/N. Klamath Groundwater Protection Project' states:

"DEQ, the US Geological Survey and Deschutes County have determined that the safety of the groundwater in southern Deschutes and northern Klamath counties is threatened by nitrate contamination from traditional on-site septic wastewater treatment systems."