



3.1 Introduction to Biological Data and Other Information Used in Developing Mitigation and Conservation Strategies

In preparing this HCP, the City consulted pertinent literature and other agencies for information relevant to developing the community-based and species mitigation and conservation strategies. Some of this information is summarized in the following sections of this chapter, but some is also discussed in Chapter 4 under the rationale for the different mitigation and conservation strategies. In addition, over the past 12 years, the City, with consultants and in cooperation with other agencies, has conducted and completed a large number of studies, analyses, workshops, and related efforts that provided information used in developing the conservation and mitigation strategies.

Section 3.2 summarizes information on fish and wildlife habitats. To provide context for much of the discussion in this HCP, basic information is given on the life cycle of fishes in the family Salmonidae (the salmon, trout, char, and whitefish). Terrestrial and aquatic habitats in the municipal watershed are described, studies of fish distribution in the municipal watershed are summarized, and aquatic habitats in the Cedar River below Landsburg are described.

Section 3.3 describes a series of studies, analyses, and workshops conducted by the City or its consultants to develop the HCP. Comprehensive, cooperative instream flow studies and analyses were completed to provide a basis for an instream flow regime designed to provide protection for anadromous salmonids. An intensive watershed assessment is described that was conducted to develop guidelines for watershed protection and to identify needs and opportunities for habitat restoration. A series of workshops are described that the City hosted on watershed forest management, bull trout, and anadromous fish mitigation. Also described are a drinking water quality risk assessment performed to evaluate passage of fish above the Landsburg water intake; a comprehensive forest inventory, computer modeling effort, and Geographical Information System (GIS) analysis that is the basis for forest habitat and timber revenue projections; and an aquatic habitat monitoring pilot study conducted to develop a long-term stream monitoring program.

Sections 3.4 through 3.6 provide information on the status, distribution, and biology of species addressed by the HCP. Detailed information is given for 14 species of greatest

concern in the region, including all that are currently listed under the Endangered Species Act. Information is also given for all other species of concern that are addressed by this HCP.