

Section 1.0 – Introduction

1.1 Purpose of Document

Riparian areas are transitional zones between the aquatic and the upland zones. It is this key location that makes them critical to watershed health. Restoration and protection of riparian corridors benefit the watershed by improving water quality (e.g, decreased water temperatures from shading and sedimentation), displacing invasive plant species, providing a native seed source, stabilizing stream banks, providing aquatic and terrestrial habitat, reducing fire risk, and promoting watershed health education and awareness (EPA, 1995). In addition, restoration and protection of riparian corridors assist local communities in meeting Clean Water Act (TMDL) goals.



Figure 1-1: Bear Creek in Phoenix.

Bear Creek and Rogue River Basin Riparian Planting Program

The Rogue Valley Council of Governments (RVCOG) initiated a planting program in the Bear Creek watershed in the fall of 2003. The primary goals of the program was to re-establish and protect native species along Bear Creek and its tributaries. The plan was created to guide the step by step implementation of program and also assist other entities in the region complete planting projects. The plan was developed with assistance from local experts including the USFS J. Herbert Stone Nursery, BLM, and OSU Extension. In addition, procedures and techniques were compiled from successful planting programs located in the Pacific Northwest and across the United States.

The Guide was updated and expanded in 2009 to include new planting sites and the Rogue Basin. New TMDL requirements for temperature in Bear Creek (2007) and the Rogue Basin (2008) were adopted. Achieving the TMDLs for temperature is based on

reaching percent shade goals for Bear Creek, the Rogue River, and all tributary streams. As a result, riparian planting and protection are critical for meeting the TMDL requirements and reducing summer stream temperatures.

Planting and protecting native species, including conifers, in the riparian corridor will increase shade, resulting in lower water temperatures. In addition, the planting will provide large woody debris to the stream channel and create stream diversity and quality habitat for fish populations (especially the threatened Coho salmon), which spawn and rear in the basins. The establishment of a mature plant community will also aid in keystone species return and control of the spread of exotic species (e.g., blackberries, poison hemlock). Additionally, restoration efforts will benefit a wide-range of species and local communities by not only improving aquatic and riparian habitat for native species but also improving public understanding of a healthy watershed's needs.

This Bear Creek and Rogue River Basin Riparian Planting Program Guide is intended to serve as a general guide and resource for selection and implementation of riparian planting projects in the basins.

1.2 Planting Goals and Objectives

The objectives of the Planting Program are to:

1. *Improve water quality over time by:*
 - a. Lowering water temperatures by providing shade to waterways. The lower temperatures resulting from by the increasing shade will help to meet the TMDL goals over time.
 - b. Increasing bank stability through multi-species root development.
 - c. Reducing and capturing sediments.
 - d. Reducing the amount of algal growth and bacteriological inputs.
 - e. Improving channel development and stability to encourage a desirable channel width to depth ratio.
 - f. Reducing urban heat island effect in urbanizing areas of the watershed.
2. *Improve aquatic and riparian habitat for aquatic and wildlife species over time by:*
 - a. Providing for future large woody debris to the channel and surrounding area, increasing habitat complexity and pool to riffle ratio.
 - b. Increasing the structural and species diversity found with mature native riparian vegetation.
 - c. Increasing detritus input.
 - d. Providing nutrients for aquatic species.
 - e. Increasing riparian vegetation width and connectivity to adjacent corridors and upland habitats.
 - f. Restoring the structural and species diversity and integrity necessary for riparian dependent obligate fauna.
3. *Improve public understanding of the importance of healthy riparian areas by:*

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- a. Providing public and private landowners with the information about the importance of riparian areas and how they can improve the ecological health of their lands.
- b. Developing a riparian planting and maintenance guide for landowners.
- c. Providing opportunities for community groups and volunteers to assist with planting projects.
- d. Providing the public with a place to explore riparian areas.
- e. Providing educational programs for local schools.
- f. Creating partnerships with agencies, watershed groups, and local municipalities to integrate planting objectives with existing programs and future planning.

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