

Chapter 1 – Purposes of and Need for Action

This Programmatic Final Environmental Assessment (EA) provides coverage for implementing general provisions (for which site-specific layout and design have not yet taken place) to upgrade access to the wasteway and stabilize localized areas of the wasteway channel. Because the EA must be prepared considerably in advance of development activities considered in general terms under each alternative, the level of detail and analysis is relatively broad in scope. Site-specific environmental compliance would be accomplished prior to stabilization or major surface disturbing activities. When specific actions are considered at a later stage, additional environmental evaluations would incorporate, by reference, the general discussion in this EA and concentrate solely on the issues specific to that site. This approach is known as “tiering.” All necessary environmental clearances and permits would be obtained prior to construction activities.

This chapter provides background information and describes the purposes of and need for Bureau of Reclamation (Reclamation) action regarding Tyler Creek wasteway (wasteway), a component of Reclamation’s Talent Division of Rogue River Basin Project (project) in Jackson County, Oregon (see the frontispiece). It identifies the proposed action, the work area, designs examined prior to building the wasteway, past construction activities, permit requirements, access, and the decision process Reclamation will follow. It also summarizes public issues and concerns gathered relative to the wasteway. (The name “Tyler Creek wasteway” is a misnomer in that the wasteway is located on Schoolhouse Creek, a tributary of Tyler Creek.)

Purposes of and Need for Action

The need for action is to stabilize localized areas of the wasteway channel for continued wasteway use.

The purposes of action are to:

- **correct existing localized streambank damage in the wasteway**
- **minimize or prevent future streambank erosion and degradation in the wasteway**
- **provide for future maintenance of the wasteway.**

Reclamation’s responsibilities include maintaining its facilities, meeting water delivery obligations, and evaluating environmental effects in accordance with National Environmental Policy Act (NEPA). Routine powerplant maintenance, which may require the shut down of Green Springs Powerplant’s single turbine, is typically conducted outside the irrigation season. When unforeseen powerplant equipment malfunctions occur during irrigation season, Reclamation has one alternate means of transferring water from Keene Creek Reservoir to

Ashland Lateral and Emigrant Lake to meet water delivery obligations – that is to bypass the powerplant by diverting flows through Tyler Creek wasteway. Because malfunctions happen randomly, Reclamation typically is unable to plan the timing or duration of wasteway use. Reclamation has occasionally diverted water through the wasteway (about five times) since constructing the powerplant in 1960.

The duration of wasteway use is dependent upon how long it takes to repair the powerplant and get it back on line. Wasteway use is normally restricted to short durations. However in 1993, a powerplant generator maintenance procedure started prior to irrigation season became problematic. Reclamation notified interested parties that the powerplant would be out of service for extensive repairs and maintenance and that the wasteway would convey irrigation deliveries throughout the entire 1993 irrigation season. This led to the longest continual use of the wasteway. The water volume diverted through the wasteway was limited to meeting downstream water delivery obligations. Even so, the extended use of the wasteway eroded the channel, exceeded its capacity in some locations, and damaged property outside of Reclamation’s rights-of-way. One particular area of bank sloughing with loss of trees and vegetation is referred to throughout this EA as the “area of considerable erosion” and is shown in figures 1-1, 1-2, and 1-4. Released water no longer flows through the area of considerable erosion, and it is beginning to stabilize naturally with recovery of native vegetation. Several wasteway areas within and outside of Reclamation’s rights-of-way require attention to minimize or prevent further bank degradation.



Figure 1-1. A portion of the area of considerable erosion (June 1997)

This EA incorporates by reference the document “*Rogue River Basin Project Talent Division – Oregon, Facilities and Operations*” (Vinsonhaler 2002), a separate report describing the facilities and operation of the entire Rogue River Basin Project. Since this EA is about stabilizing the wasteway rather than about changing operations of individual facilities within the Rogue River Basin Project, operations of Tyler Creek wasteway and Green Springs Powerplant are not addressed in this EA.

Proposed Action and Scope of Work

Reclamation is **proposing to upgrade access to the wasteway and stabilize localized areas of the wasteway channel.** The wasteway is defined as the natural channel used to convey water between the wasteway's pipe outlet and where Tyler Creek enters Emigrant Creek. **The proposed work area includes the wasteway from the pipe outlet downstream to where Tyler Creek enters Emigrant Creek and the access road right-of-way between Tyler Creek Road and the wasteway (T39S, R3E, Section 32; T40S, R3E, Sections 5 and 6; and T40S, R2E, Section 1); but is limited to those areas where wasteway access is needed and where Reclamation's use of the wasteway has caused or could cause channel erosion.** Emigrant Creek is excluded from the stabilization efforts because wasteway use has not caused bank erosion of Emigrant Creek.

The range of public comments suggests a desire to expand the scope of the stabilization efforts beyond the proposed work area. The wasteway channel carries intermittent flow during periods of snowpack runoff and precipitation. Once the flow enters Tyler Creek, other factors beyond Reclamation's control affect natural resources which occur in or use the creek channel. Therefore, watershed or basin-wide areas, issues, and studies outside the proposed work area are beyond the scope of this EA. These areas, with the exception of the access road right-of-way, comprise locations north, east, south, and west of the wasteway's natural channel, including those reaches upstream from the pipe outlet and downstream from where Tyler Creek enters Emigrant Creek. Likewise, issues that extend beyond the purposes of and need for action are considered watershed issues not specific to stabilizing the wasteway.

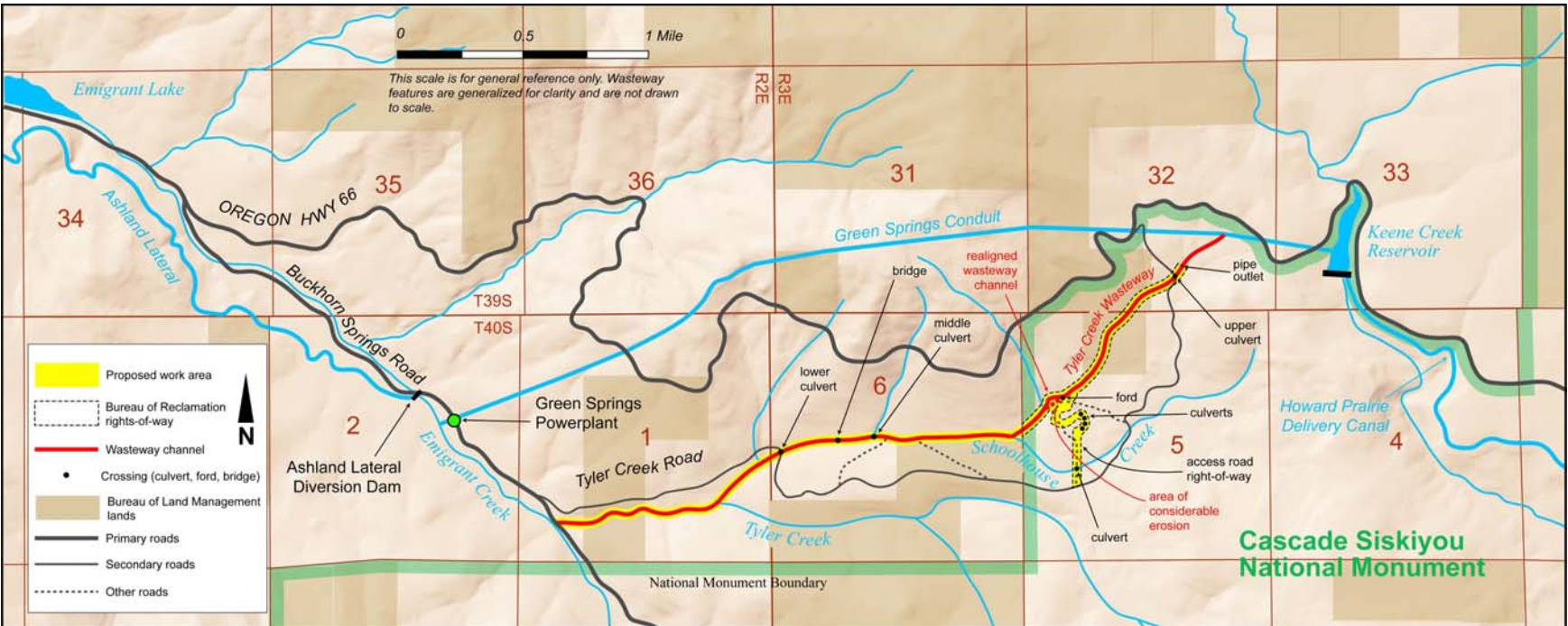


Figure 1-2. Proposed work area

Background

Authority

Reclamation rehabilitated existing Medford and Rogue River Valley Irrigation District facilities under the Rehabilitation and Betterment Act of October 7, 1949, (63 Stat. 724), as amended (68 Stat. 752). The Act of August 20, 1954, (Ch. 775, 68 Stat. 752) authorized Reclamation to construct, operate, and maintain the Talent Division of the Rogue River Basin Project according to Reclamation laws.

Rogue River Basin Project Description

Rogue River Basin Project's Talent Division collects, stores, conveys, and distributes water from high elevation reservoirs to three water districts in the Rogue River valley. The project is also authorized to provide downstream flood control. Talent Irrigation District (TID) diverts storage from Hyatt Reservoir and Howard Prairie Lake to Keene Creek Reservoir, which reregulates stored water for Green Springs Powerplant. The powerplant discharges water into Emigrant Creek for diversion into Ashland Lateral or for storage in Emigrant Lake until TID releases it for irrigation. To bypass the powerplant, a bypass valve on the power conduit diverts water released from Keene Creek Reservoir into a piped section of the wasteway that empties into an open natural channel and flows into Schoolhouse Creek, Tyler Creek, and Emigrant Creek. Using the wasteway provides no benefit for power production.

Water users hold contracts with Reclamation for rights to delivery of water via the wasteway during times when Green Springs Powerplant is out of service for maintenance or repairs.

Early Powerplant/Wasteway Designs

Reclamation examined various powerplant and wasteway design options prior to the 1959-1960 construction and in more recent years. All options, except those for the existing powerplant and wasteway, were eliminated from further consideration because they were either technically or economically unacceptable. The eliminated designs include:

- a power conduit layout with an open power canal and a traditional wasteway structure at the location where the canal would enter the penstock; this design included an alternate natural drainage channel, such as Sampson Creek
- a two unit powerhouse that could bypass one unit during maintenance and discharge water through the other unit into Emigrant Creek
- a bypass valve and pipe at Green Springs Powerplant that would discharge into Emigrant Creek
- a buried pipeline along the entire length of the existing wasteway alignment

After much analysis on design options, Reclamation found the existing Tyler Creek wasteway to be the most technically and economically acceptable option.

Regardless of whether or not any of the above options may some day prove to be technically, economically, and environmentally viable, Reclamation would still upgrade access to the wasteway and stabilize localized areas of the wasteway channel.

Wasteway Construction and Modification

Reclamation constructed the piped section of Tyler Creek wasteway in 1959, modified the channel at the pipe outlet during construction of the powerplant in 1960, and made additional modifications in winter 1992 and spring 1993 to stabilize the upper-most section of the wasteway and the pipe outlet discharge pool. At the landowner's request to avoid further property damage, Reclamation constructed a berm in 1993 along a section of the wasteway directing flow away from the area of considerable erosion and into another natural channel (figure 1-3).

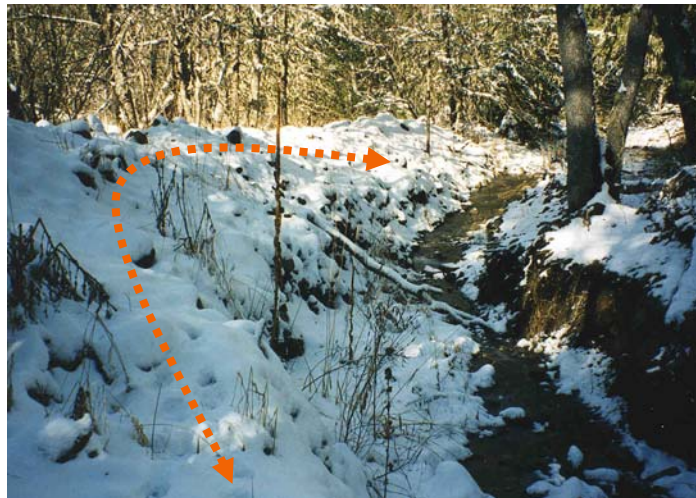


Figure 1-3. Berm prevents wasteway flow from entering the area of considerable erosion and directs it into another natural channel.

Construction Permits

Oregon Department of Environmental Quality (ODEQ), Oregon Division of State Lands (ODSL), and U.S. Army Corps of Engineers (Corps) have specific and different regulatory roles designed to protect waters within Oregon. Regulations are designed to protect navigable waters, ensure wise and beneficial water use, maintain and enhance water quality, protect fish and wildlife habitat and recreation resources, and protect the public interest. The goals of these regulatory roles are to protect the biological, chemical, and physical integrity of Oregon's waters. Wetlands are given special regulatory emphasis because of their ecological value.

Regulated activities in Oregon's waters that may require a permit include, but are not limited to:

- excavating and dredging
- changing, realigning, or relocating channels
- placing fill, riprap, or similar material
- stabilizing banks or shores including jetties and revetments
- installing culverts, bridges, or roadways.

To accomplish the purposes of action, Reclamation would obtain Clean Water Act (CWA) and appropriate State permits prior to construction activities as required by ODEQ (Section 402 permit and Section 401 certification), ODSL (removal/fill permit), and the Corps (Section 404 permit).

Rights-of-Way/Flowage Easements and Wasteway Access

Reclamation can run water through natural waterways without obtaining rights-of-way if the flow is within the carrying capacity of the channel. However, rights-of-way are needed where flow may exceed the natural channel and cause property damage. In the early 1960s during the planning and construction phases of Tyler Creek wasteway, drainage areas of existing creeks and their ability to handle released flows provided the basis for determining the location and extent of these flowage easements.

Reclamation acquired rights-of-way/flowage easements for those portions of the wasteway in Sections 32 and 5 (from the pipe outlet to the west boundary of the Garfas property). See figure 1-4. Reclamation also has reserved rights-of-way across portions of Sections 6 and 1 that are based on the 1890 Canal Act right. Initially, the creek channel in Sections 6 and 1 (downstream from the Garfas property to the confluence of Tyler Creek with Emigrant Creek) was assumed to be sufficient to carry released flows; therefore, flowage easements for this reach were not obtained. However, use of the wasteway during the 1993 irrigation season revealed that portions of the channel were not capable of carrying long-term flows without eroding the channel banks.

Reclamation and TID employees, in the past, could only legally access the wasteway by staying within the 100-foot-wide flowage easement from the pipe outlet to the west boundary of the Garfas property. This made it difficult to get equipment into the wasteway for maintenance. Hence, Reclamation and TID needed additional access to the wasteway near the area of considerable erosion. Reclamation negotiated with the private landowner and arrived at an acceptable location for a 60-foot-wide access easement approximately 1,700-feet long (figure 1-4).

Reclamation has no authority to stabilize areas outside its acquired rights-of-way, and therefore, must acquire additional rights-of-way/flowage easements before stabilization work on private land can proceed. Reclamation would involve individual landowners where wasteway flow has exceeded the natural channel and caused or could cause property damage or where additional access to the wasteway is needed. In some areas, Reclamation has the option of exercising the Canal Act reserved rights-of-way on private lands. The Canal Act of August 30, 1890, (26 Stat. 391) authorizes Reclamation to acquire lands with compensation, take possession, and exercise certain rights-of-way reserved to the United States for irrigation works and reclamation of arid lands. The 1890 Act applies to land patents issued after August 30, 1890, west of the 100th meridian¹. Similar reservations for such purposes may also apply to privately owned lands

¹ The 100th meridian is a longitudinal line representing the boundary between the non-irrigated, moist east and the arid, irrigation-dependent west. This line runs through North and South Dakota, Nebraska, Kansas, Oklahoma, and Texas.

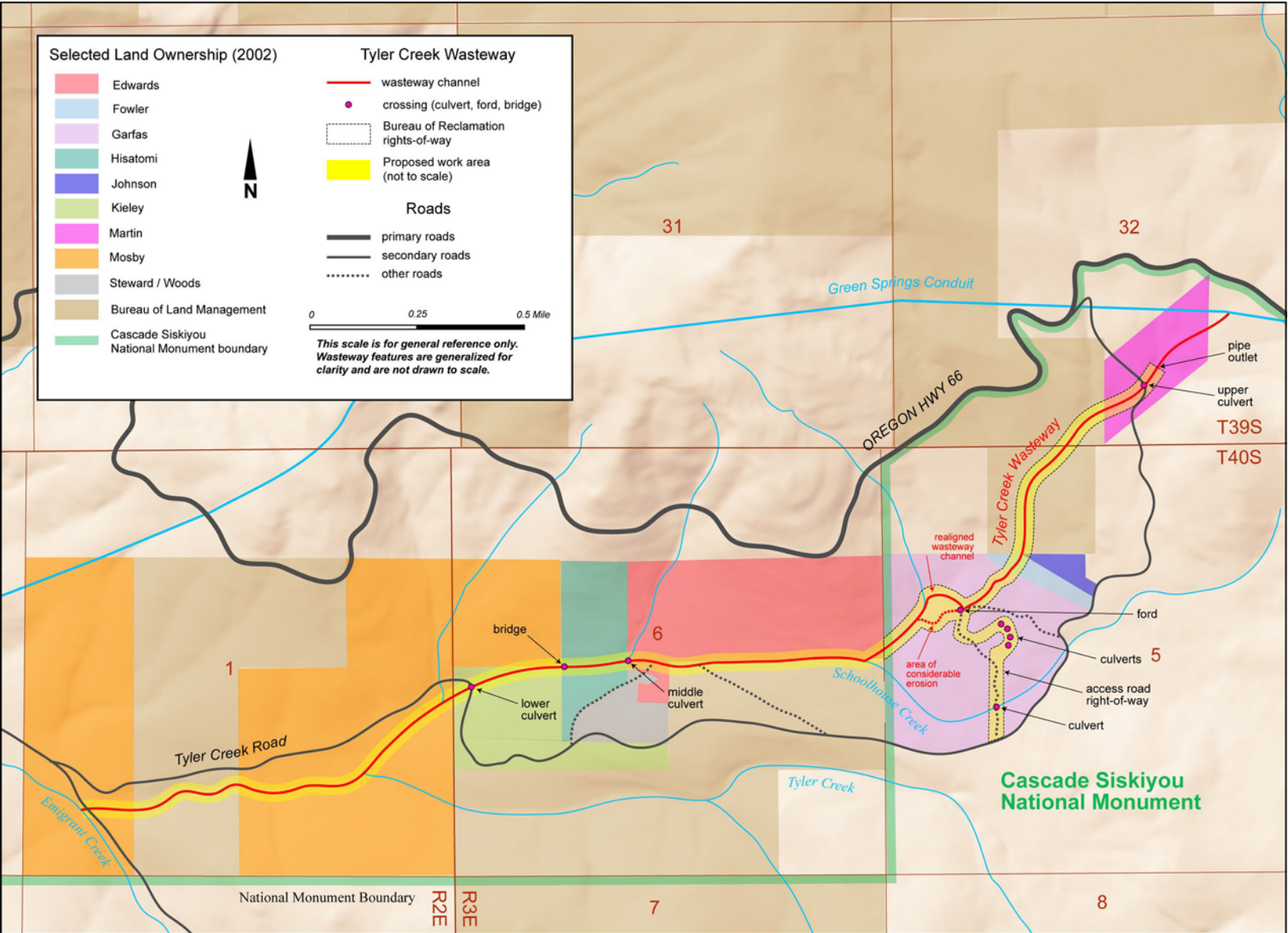


Figure 1-4. Approximate 2002 land ownership and Reclamation rights-of-way

through water-right applications, water users' association stock subscription contracts, State legislation, and the Federal Power Act of June 10, 1920, (41 Stat. 1063).

A Decision to Make

As part of the NEPA process, Reclamation considers public comments prior to **deciding which alternative to implement**. Reclamation will complete this EA on Tyler Creek wasteway stabilization and then determine whether a Finding of No Significant Impact (FONSI) is appropriate. If a FONSI is appropriate, Reclamation will make a decision on whether to implement the preferred alternative along with the environmental commitments outlined in the FONSI/Final EA.

If the proposed action results in significant environmental effects, a FONSI would be inappropriate. Reclamation would then prepare an Environmental Impact Statement (EIS) followed by a Record of Decision on whether or not to implement one of the identified alternatives.

Scoping Process and Issues Identified

As required by NEPA, Reclamation developed a preliminary range of alternatives to stabilize the wasteway taking into consideration the existing wasteway channel degradation, the steep terrain, and the goal of maintaining the environmental integrity of the channel. An ongoing and open public and agency scoping process identified the issues to be addressed in this EA. Reclamation gathered information through public outreach efforts, talking with stakeholders, and ongoing contacts with local, State, and Federal agencies. An initial scoping letter, in April 2001, requested public assistance in identifying environmental impacts and concerns or suggestions on the alternatives. The public submitted eight response letters. These alternatives were discussed at a May 21, 2001, tour of the wasteway channel attended by Bureau of Land Management (BLM), landowners, Friends of the Greensprings (FOG), and two private consultants. The participants agreed that a natural stream should be maintained rather than constructing a canal. They also agreed that bioengineering techniques using native vegetation would offer the best solution.

These preliminary alternatives were then presented at a public workshop on December 6, 2001, in Ashland. Reclamation received three letters and comment forms before and eight letters following the meeting attended by fourteen stakeholders. The workshop offered another forum for public input on the alternatives. Those comments that fell within the scope of stabilizing the wasteway and that were not already incorporated into the alternatives were given consideration. Public comments and preferences identified throughout the scoping process helped to refine the alternatives described and evaluated in this EA. They also led to the extension of the work area from the wasteway outlet pipe downstream to the confluence of Tyler Creek at Emigrant Creek.

Public and agency comments generated from the review of the Draft EA that fall within the scope were also given consideration prior to selecting an alternative.

The issues and concerns raised throughout the scoping process are categorized and summarized as follows:

Land Ownership and Access

The landowners are concerned about damage to their property caused by Reclamation's use of the wasteway. They want the damage to stop and expect Reclamation to repair their land. They want Reclamation to obtain easements through their property; some prefer permanent easements. They want to be involved in how their land would be repaired. They want to know how Reclamation would involve them to decide which sites need stabilized; where stabilization would occur, and how the work would be done. They want a more thorough understanding of the total impact of the stabilization efforts and state that Reclamation has yet to assess all the private property. They are concerned about losing their right to privacy.

Geologic Features

The public is concerned with the unstable soils present in the wasteway, the loss of those soils, long-term degradation of the landscape, and the effect erosion has on downstream resources. There is concern that using the wasteway could reactivate an ancient landslide. Reclamation acknowledges that during 1993, the channel wasn't capable of handling the flow. They want to know the soil/geology impacts from accessing sites where standard engineering techniques would be used. They want to know the geology impacts of alternative 4 from more access roads into the wasteway.

The public is concerned with the volume of water and the duration of the flow. They suggested a channel survey and design criteria that Reclamation incorporated into the preferred alternative. They offered suggestions on detailed studies and developing an alternate bypass, all of which are outside the purposes of and need for action.

Water

The public is concerned about how using the wasteway affects downstream water quality. They are concerned that Ashland Lateral flows are adding pollutants to the city of Ashland's drinking water. They want further information about water quality impacts caused by the alternatives. They took exception to three particular Draft EA statements about water quality.

Vegetation

The public wants the natural vegetated state of the channel returned and maintained with native plantings, increased riparian shade, and protection of wetlands. They want further information about vegetation removal and disposal of that vegetation.

Fish, Wildlife, and Aquatic Resources

The public is concerned about what sedimentation does to the downstream aquatic environment and species. They requested analysis of special status species. They want further information concerning the impacts created by the culverts. They provided the names of fish species present in Tyler Creek.

Social Aspects

Public concerns include quality of human life, health, and safety. Landowners are concerned that the erosion is destroying the value of their investments and causing an unsightly landscape. They are concerned about the possibility of reactivating a major landslide causing the loss of their property, homes, and human life. As a result, their peace of mind is impaired. They want to know how increased population and development in the Tyler Creek drainage have somewhat increased wasteway flow and how it impacts geologic resources.

Alternatives and Study Types

The public wants thorough analysis of current conditions and the impacts using the best science available to develop a broad range of alternatives. They want the scope of work and impacts of that work determined before any action is taken. They state the Draft EA missed the very root of the problem (too much water volume and velocity) without scientific analysis of adverse effects. It also missed the basic concepts to stabilize, restore, and mitigate and that the proposed actions are shortsighted, based on convenience, and focused on least expense and greatest expediency. The analysis falls short of offering a broad range of alternatives and addresses only a short-term fix to a portion of the affected area. Standard engineering practices are vague and fail to adequately disclose the proposed actions on private property and what benefits or harms those practices would cause. The Draft EA fails to state that Sampson Creek and an unnamed tributary were historically used to transfer water from Hyatt Reservoir to Emigrant Lake prior to constructing Keene Creek Reservoir and Tyler Creek wasteway.

The public wants clarification of Reclamation's intended future use of the wasteway, its continuing impact on private land, the proposed work schedule, the locations of right-of-way acquisition and stabilization work, exactly where bioengineering structures would be used, and where the high velocity areas are that would need standard engineering techniques. They want to know whether the private bridge and middle culverts are the only locations being considered for standard engineering techniques. They want equal information and equal repairs for all land sections along the wasteway. They want to know what monitoring would be done, where, and who would do it. They want to know how equipment would move around in the work area. There are concerns that backfill and riprap may not adequately prevent further erosion. They question whether the wasteway would be engineered to handle increased flow or just repaired to be destroyed again.

Suggestions include small wasteway maintenance flows throughout summer to stabilize and maintain the channel, reexamine powerplant and wasteway designs previously eliminated, consider surfacing the entire access road or at least the stream approaches and crossings, extend the work area down to Tyler Creek and Tyler Creek Road, and restrict channel stabilization to

the dry season and during the Oregon Department of Fish and Wildlife (ODFW) instream work period.

Clarification was requested on the grade of the proposed access road, how the access road route was determined, the rationale for proposing a natural surface road rather than a rocked or paved running surface, the location of the abandoned logging road and proposed new sections of the access road, culvert sizes, the number of culverts, Reclamation's use of the road, and whether any already existing roads into the wasteway are on BLM land.

Quality of Analyses

One letter states that using the wasteway for 20-60 cfs was never an environmentally acceptable option. Others state the analysis fails to adequately address issues raised in scoping letters and at the public workshop, the assessment is incomplete and lacks substantive issues, it is not clear that Reclamation considered all the FOG environmental studies, and the public wants more analyses. They state the greatest flaw is lack of acknowledgement of adverse cumulative effects of sustained wasteway use.

Management and Infrastructure

Some of the public wants to see first-hand and discuss the wasteway damage; some offered assistance. Some want the Rogue Valley Technical Pool to review and comment on the proposed plan. Others lack trust in Reclamation's actions and analyses. One letter requested extension of the comment period.

Issues Outside the Purposes of and Need for Action

Several of the public comments and requests pertain to issues unrelated to stabilizing the wasteway. Reclamation acknowledges and has documented these issues, but considers them as being beyond the scope of this EA. Specific issues and concerns are:

- General engineering, geomorphic, geologic, and geotechnical studies not specific to stabilization
- Cost, benefits, and cumulative effects on whole river system
- Dependable irrigation water delivery
- Drinking water in the city of Rogue River
- Permanently abandon the wasteway
- Return the stabilized wasteway to a natural channel
- Observe other streams not affected by Reclamation releases
- Stream profiles and cross sections on tributaries
- Stabilize tributary channels and swales
- Extend the study area from the pipe outlet to Buckhorn Springs Road
- Alternate way to bypass powerplant
- Significant offsite impacts beyond the scope of the proposed action
- Long-term impact and cost analysis of wasteway versus an alternate bypass
- Revisit Sampson Creek as wasteway channel

- Cleaning sedimentation from sprinkler systems
- Deliver irrigation water without degraded water quality or social, economic, or environmental damage
- Gross oversight not to mention a wasteway operating plan
- Determine maximum flow including combined water deliveries and natural flow of weather events
- Impose a flow restriction that limits future releases to 20 cfs.

