

### Project Consistency with the Upper Pit IRWMP

The ***Ash Valley Ranch Irrigation Infrastructure Efficiency project*** is consistent with the Upper Pit Watershed Integrated Regional Water Management (IRWM) Plan and is listed as a Tier 1 Project. Tier 1 projects have been through the formal approval process of the Project Review Committee and are endorsed by the Project Review Committee and the Regional Water Management Group. Tier 1 projects have been reviewed with respect to 12 criteria and are ready to proceed.

The project was identified as important to the region due to the amount of water running through this particular landowner's canal. The leakage is significant and stakeholders agree that this project would represent significant groundwater savings after implementation. In addition, the replacement of diesel with electric pumps will considerably reduce the GHG emissions from the current diesel-run pumps. These issues are both IRWM-level issues and are addressed in large part by this project.

The following list summarizes the project's contributions to the Upper Pit River Watershed IRWM Plan objectives

- Consistent with objective 1-D: Conduct a feasibility analysis of alternative methods of irrigation water delivery (e.g., piping or canals) that benefits both agricultural users and riparian/aquatic health.
  - project implements an alternative method of water delivery to an open canal by piping that canal, minimizing animal intrusion, eutrophication, and unnecessary pumping
- Consistent with objective 2-F: Implement piping and/or lining to replace at least five miles of open ditch systems to reduce water losses by at least 50 percent.
  - This is a canal piping project
- Consistent with objective 5-A: Conduct at least two water supply infrastructure projects that could include leak detection and repair; distributions system pipeline replacement; water tank storage repair/replacement, and meter calibration, repair, and replacement that help improve the integrity of local water supply.
  - This project addresses water supply infrastructure and will minimize leaks by piping a currently open, unlined canal
- Consistent with objective 9-A: Help reduce energy use and improve economic stability through irrigation efficiency measures.
  - This project reduces energy use through a conversion of diesel to electric pumps, and increases the efficiency of an irrigation system by piping a ditch.

The project is related to the plan's Resource Management Strategies (RMS) as follows:

- Consistent with RMS Agricultural Water Use Efficiency
  - Strategy B: Re-work irrigation systems via ditch lining and piping, diversion repair, field leveling, and water monitoring
  - Strategy D: Facilitate the financing of capital improvements for on-farm irrigation systems
  - Strategy J: Provide assistance for best management practices (BMPs) for agricultural water efficiency
- Consistent with RMS Conveyance – Regional/Local
  - Strategy A: Improve ditch efficiency by lining and converting to piping

*Please Note:* This project, Ash Valley Ranch Irrigation Infrastructure Efficiency project is listed in the IRWM plan as Ash Valley Ranch Irrigation Improvement.

The ***Restoring Hydrologic Function in South Ash Valley*** project is consistent with the Upper Pit Watershed Integrated Regional Water Management (IRWM) Plan and is listed as a Tier 1 Project. Tier 1 projects have been through the formal approval process of the Project Review Committee and are endorsed by the Project Review Committee and the Regional Water Management Group. Tier 1 projects have been reviewed with respect to 12 criteria and are ready to proceed.

The multiple benefits provided by this project make it an excellent candidate for IRWM funding. The project integrates environmental, community education, and local economy components to fully realize the potential of IRWM in the Upper Pit watershed. Stakeholders have consistently cited fire protection as a major watershed issue for the region; this project implements that theme and at the same time provides valuable hydrologic benefits.

The following list summarizes the project's contributions to the Upper Pit River Watershed IRWM Plan objectives

- Consistent with objective 3-D: Reduce the potential for large uncontrolled fires, and thus subsequent erosion and runoff and property loss by conducting forest health and small fuels reduction projects on at least 20,000 acres.
  - This project addresses the issue of catastrophic fire through the restoration of 1,000 acres of watershed.
- Consistent with objective 3-E: Implement the Sage Steppe Ecosystem Restoration Strategy
  - The project coordinates with the regional program and implements with shared project partners.
- Consistent with objective 7-A: Support two restoration/enhancement projects that benefit the local economy.
  - The implementation of this project will help to sustain regional forestry jobs, as well as temporary employment of an administrative professional, biologist, and conservation expert.
- Consistent with objective 7-C: Encourage projects conducted under this Plan to hire a local workforce.
  - The project proponent has already committed to hiring/making use of at least three local experts; the thinning work will also be done by the local workforce

The project is related to the plan's Resource Management Strategies (RMS) as follows:

- Consistent with RMS Economic Incentives
  - Strategy B: Create conservation and traditional environmental stewardship jobs for Pit River region disadvantaged communities

*Please Note:* This project Restoring Hydrological Function on Ash Valley Ranch is listed in the IRWM plan as South Ash Valley Water Restoration Project.

The **South Fork Irrigation District Irrigation District Infrastructure Upgrade** is consistent with the Upper Pit Watershed Integrated Regional Water Management (IRWM) Plan and is listed in the Plan as a Tier 1A Project. Tier 1A projects are those projects that are ready to proceed, high-priority projects which must first secure funding for the non-match portion of the budget before the lead agency will commit to supplying a match. In other words, upon commitment of funding for the project by DWR, the Natural Resources Conservation Service (NRCS) will commit to funding the match.

Tier 1A projects have been through the formal approval process of the Project Review Committee and are endorsed by both the Project Review Committee and the Regional Water Management Group. The South Fork Irrigation District Infrastructure Upgrade project was reviewed at the April 17, 2014 RWMG meeting. At that meeting it was determined that the project met the qualifications for the 2014 IRWM Drought funding and was deemed a high priority project. The RWMG approved this project to be included in the Drought Funding application at the April meeting.

The irrigators in the South Fork District agree the water loss from the diversion ditch bank overflow is significant, especially during this period of extreme drought. This irrigation system has been in use since the early 1930's and early 1940's. The system has developed bank overflow problems a key point in the diversion ditch and the main ditch flume has numerous leaks in the pipe.

This project is consistent with the following goals and objectives and the management strategies of the IRWM Plan.

Goal 2 – Maintain and improve the quality and availability of water for irrigation demands. In developing the goal, the plan recognizes in a number of cases the inefficient transport of irrigation water has compounded the problem of de-watering of shallow aquifers and wet meadow systems.

- One of the objectives of this project is to improve irrigation efficiency to provide for agricultural production needs as well as the shallow ponds and wet meadow systems.

Objective 5-A Conduct at least two water supply infrastructure projects that could include leak detection and repair, distributions system pipeline replacement etc.

- This project upgrades infrastructure water supply by repairing frequent bank overflow problems and replacement of a leaky flume pipeline.

This project is consistent with the plan's Resource Management Strategies as follows:

- Improve agricultural water use efficiency by
  - Strategy B – Re-work irrigation systems via ditch lining and piping, diversion repair, field leveling, and water monitoring
  - Strategy D – Facilitate the financing of capital improvements for on-farm irrigation systems.
- Consistent with RMS Conveyance – Regional/Local
  - Strategy A – Improve ditch efficiency by lining and converting to piping.

**Please Note:** The South Fork Irrigation Infrastructure Upgrade is a combination of two projects in the IRWM plan, 1) The South Fork Pit River Master Ditch Flume; 2) West Valley Diversion Ditch.