RECLAMATION

Managing Water in the West

DRAFT ENVIRONMENTAL ASSESSMENT

Farmers Irrigation District,
Lower Distribution Pressurization Project,
Phase II – Tucker Road Project, Hood River, Oregon

U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Lower Columbia Area Office
Portland, Oregon

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List of Acronyms and Abbreviations

cfs	cubic feet per second
ESU	Evolutionary Significant Units
Reclamation	Bureau of Reclamation
Water 2025	Water 2025: Preventing Crisis and Conflict in the West program
FID	Farmers Irrigation District
ORS	Oregon Revised Statute
EA	Environmental Assessment
NEPA	National Environmental Policy Act
RM	river mile
USFWS	U.S. Fish and Wildlife Service
ODFW	Oregon Department of Fish and Wildlife
SHPO	State Historic Preservation Office
ESA	Endangered Species Act
BA	Biological Assessment
USGS	U.S. Geological Survey
TMDL	Total Maximum Daily Load
DEQ	Department of Environmental Quality
DSL	Oregon Department of State Lands
COE	U.S. Army Corps of Engineers
DBH	diameter at breast height
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
BIA	Bureau of Indian Affairs
ITA	Indian Trust Assets
EO	Executive Order
NHPA	National Historic Preservation Act

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CHAPTER 1 - PURPOSE AND NEED FOR ACTION

The Bureau of Reclamation (Reclamation) through the Water 2025: Preventing Crisis and Conflict in the West program (Water 2025) is proposing to contribute funding to Farmers Irrigation District (FID) to upgrade portions of their conveyance system to conserve water. The FID, located in northern Hood River County (Figure 1), is organized to provide water to orchards and residential users under State of Oregon Oregon Revised Statute (ORS) 545. The present FID is a merger of the original Farmers Irrigation Company and the Hood River Irrigation Company that occurred in 1978. The original Farmers Irrigation Company has water rights from 1906, and the original Hood River Irrigation Company has water rights from 1874. Presently, there about 1,600 water users and 80 percent of the District land is dedicated to orchards operated by 15 percent of the District's customers. Approximately 5,800 acres are irrigated. The primary orchard production consists of apples, pears, and cherries.

The FID is in the process of converting its canals and pipelines into an entirely pressurized pipeline system to improve water conservation and irrigation efficiency. This task was divided into three phases (Figures 1 and 2) as follows:

- Phase I - Belmont-Avalon Roads
- Phase II - Tucker Road
- Phase III - Orchard Road

Phase I and III are complete. The FID has applied for Water 2025 funds to implement Phase II. This Environmental Assessment (EA) has been prepared to evaluate the potential environmental and social impacts of the proposed project and to inform the public, regulatory agencies, and other interested parties. The EA findings and public comments will form the basis for a decision regarding the proposed action. This document has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and the Council on Environmental Quality (40 CFR Part 1500).

1.1 Purpose and Need for Action

The FID has been undergoing a long-term program to incrementally improve the irrigation system consisting of diversions, canals, and pipelines that were constructed in the late 1800s and early 1900s. The system of canals is inefficient for conveyance of water because old and deteriorated canals leak as water flows through the system. The purpose of the project is to conserve water and reduce maintenance costs.

Phase II represents the final pipeline replacement phase of FID's Water Conservation and Management Plan. Phase I was completed in 2003. Phase III was completed during 2004. Phase II (the subject of this Environmental Assessment) is tentatively scheduled to be completed in 2005. FID proposes to install approximately 7 miles of pressurized pipeline and improve a pumping plant if funding is available. The new pressurized pipelines would replace sections of unlined canal and existing pipelines or place pipelines

in new alignments where neither canal nor pipeline is currently located. Water conserved by Phase II would be returned to the lower 4 miles of the Hood River for improved instream flows during the summer irrigation season.

Reclamation is proposing to contribute funding to implement Phase II of the project, utilizing authority and funding from the Energy and Water Development Appropriations Act, 2004, section 212, Public Law Number 108-137, 117 Stat. 1827 (December 1, 2003). Reclamation administers these funds through a competitive challenge cost share program known as the Water 2025: Preventing Crises and Conflict in the West (Water 2025). The District successfully competed for Water 2025 cost-share funds for completion of Phase II of their pressurization project. Before Federal funds can be made available to the District, Reclamation must comply with the National Environmental Policy Act (NEPA). This EA will address the social, economic, and environmental consequences of the proposed Phase II water conservation project.

1.2 General Location of the Affected Area

The District is located in the Hood River watershed which is tributary to the Columbia River above Bonneville Dam. Phase II is located in and around the city of Hood River in Hood River County, Oregon (Figures 1 and 2). The nearly 7 miles of pipeline being considered in this EA would be located in existing or newly acquired easements on private property and in public rights-of-way (i.e., public road easements).

1.3 Description of Current Facilities

The FID's primary diversion is located on the Hood River (RM11). The District also operates 11 other diversions in the Hood River basin for irrigation water supply and to generate power in FID's two off-stream hydroelectric power plants. The power plants, Plant 2 and Plant 3, have a combined capacity of 3.8 megawatts. The Lowline Canal and the Farmer's Canal provide water to Plant 3. From there, water is discharged back to the canals, then conveyed to Plant 2, and finally discharged into the Hood River (near RM 4.5 upstream of Powerdale Dam). The District operates the hydroelectric plants year round, which requires year round water diversions (Figure 2).

The FID distributes irrigation water during the irrigation season, which starts April 15 and ends September 30. The conveyance system consists of approximately 25 miles of primary supply canals, and 85 miles of laterals.

1.4 Other Related Actions or Activities

FID has implemented a number of measures that benefit water users as well as the watershed of the Hood River system. FID has:

- consolidated 34 unscreened hydroelectric and irrigation water diversions to 12 fully screened diversions
- returned 2,535 supplemental and 115 primary water rights acres to in-stream flow (approximately 30 cfs)

- eliminated the FID supplemental pump station on Farmers Canal for 600 water right acres (approximately 7.5 cfs)
- placed 80,000 board-feet of large woody debris at 12 sites on Green Point Creek to restore habitat, regain floodplains, increase complexity, enhance stream sinuosity, and increase natural instream storage
- developed and implemented a comprehensive stream flow and system efficiency data collection and reporting program
- converted 35 percent of residential users to micro-sprinkler technology with meters or gauges to conserve water and reduce District costs by as much as 300 percent.

The FID also implemented projects to convert open canals to pressurized pipe to provide more efficient delivery and to promote water conservation. Phase II of this project is one of three phases for the conversion of canal to pressurized pipelines in the delivery area. Previously, FID upgraded outdated fish screen facilities, including those at the FID main diversion on the Hood River (Farmers Canal) to state-of-the-art fish protection systems approved by NOAA Fisheries, U. S. Fish and Wildlife Service (USFWS), and Oregon Department of Fish and Wildlife (ODFW).

The District adopted its first Water Conservation and Management Plan in 1994. The plan was approved by the Oregon Water Resources Department in March 1995. It has undergone several revisions over the years and is now in the form of the district's Sustainability Plan, which was adopted in 2002. Both the conservation and sustainability plans require that the district complete pipe projects, among many other things, in order to conserve water for increased in-stream flow and efficient on-farm irrigation. Annual plan reviews and assessments are required.

1.5 Water 2025: Preventing Crisis and Conflict in the West

Water 2025 is intended to focus attention on the reality that explosive population growth in western urban areas, the emerging need for water for environmental uses, and the national importance of domestic production of food and fiber from western farms and ranches is driving major conflicts between these competing uses of water. This program recognizes that states, tribes, and local governments should have a leading role in meeting these challenges, and that the Department of the Interior should focus its attention and resources on areas where scarce federal dollars can provide the greatest benefits to the west and the rest of the nation. Water 2025 provides the basis for a public discussion in advance of water crises and sets forth a framework to focus on meeting water supply challenges in the future.

1.6 Summary of Public Involvement

On October 19, 2004, Reclamation sent a letter to more than 100 individuals, organizations, local media, and local, State, and Federal governmental agencies requesting that issues or concerns about the proposal to contribute Water 2025 funds to Phase II be identified to Reclamation. In addition, FID notified its water users of

impending modifications to the project through meetings and news releases. Reclamation received two letters responding to this request by adjacent property owners who will be affected by the installation of pipelines (See Chapter 4, Consultation and Coordination).

1.7 Coordination with Indian Tribes

Reclamation has determined there is little likelihood the action will affect archeological sites or traditional cultural properties. No sites were found during the archeological survey. On January 5, 2005, Reclamation initiated consultation with the Oregon State Historic Preservation Office (SHPO), requesting that they concur that the investigations completed were sufficient to meet the requirements of law. In a letter dated February 12, 2005, SHPO concurred that the project will have no effect on historic properties and no further archeological investigations are needed.

On August 23, 2004, Reclamation notified the Warm Springs Tribes of the proposed project and asked that they notify the agency if there were traditional cultural properties in or near the area. No response has been received from the Warm Springs Tribes as of this time.

1.8 Endangered Species Act

On July 19, 2004, Reclamation requested a list of species that are threatened, endangered, or proposed for listing under the Endangered Species Act (ESA) from the USFWS. Based on the USFWS's response on September 8, 2004, a Biological Assessment (BA) was prepared to evaluate impacts of the project on species listed or proposed for listing under ESA. Chinook salmon, steelhead, bull trout, and bald eagle, all Threatened species were addressed. In addition, coho salmon, a Proposed Threatened species also was addressed. The project "may affect, not likely to adversely affect" Chinook, steelhead, bull trout, and coho salmon. The project will have a beneficial impact on these species. Critical Habitat will not be adversely affected. The project will have "no effect" on bald eagle.

COLUMBIA RIVER

COLUMBIA RIVER HWY I-84

COLUMBIA RIVER

MAY STREET

DRIVE

POST CANYON

PHASE I

FRANKTON ROAD

FAIRVIEW ROAD

BELMONT DRIVE

MULTNOMAH ROAD

METHODIST ROAD

COUNTRY CLUB ROAD

INDIAN CREEK ROAD

PHASE II

TUCKER ROAD

BARRETT DRIVE

TUCKER ROAD

PHASE III

ORCHARD ROAD

HAYS DRIVE

TUCKER ROAD

HOOD RIVER

HYDRO PLANT 3
(LOCATION OF TUCKER
ROAD PUMP STATION)

WATER FROM
LOWLINE CANAL

ORCHARD ROAD

PORTLAND DRIVE

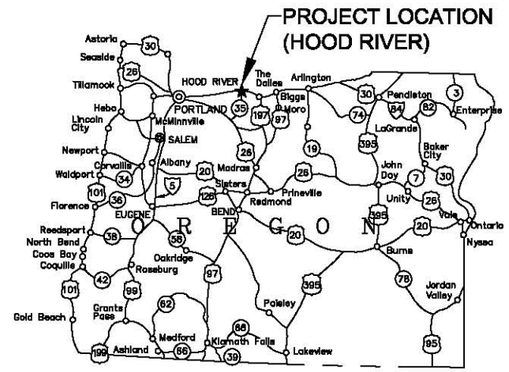
WATER FROM FARMERS
CANAL INTAKE ON THE
HOOD RIVER (6 MILES)

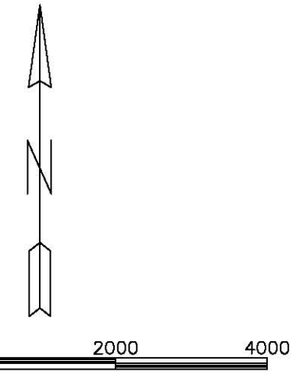
POWERDALE
HYDROELECTRIC
PROJECT CANAL

POWERDALE DAM

HYDRO PLANT 2

POWERDALE
HYDROELECTRIC
PROJECT POWERHOUSE





LEGEND

- PHASE ONE AREA
- PHASE TWO AREA
- PHASE THREE AREA
- DISTRICT BOUNDARY
- COLUMBIA RIVER GORGE NATIONAL SCENIC AREA

FARMERS IRRIGATION DISTRICT

LOWER DISTRIBUTION PRESSURIZATION PROJECT
PHASES I, II AND III IRRIGATION IMPROVEMENTS
PROJECT VICINITY

FIGURE 1

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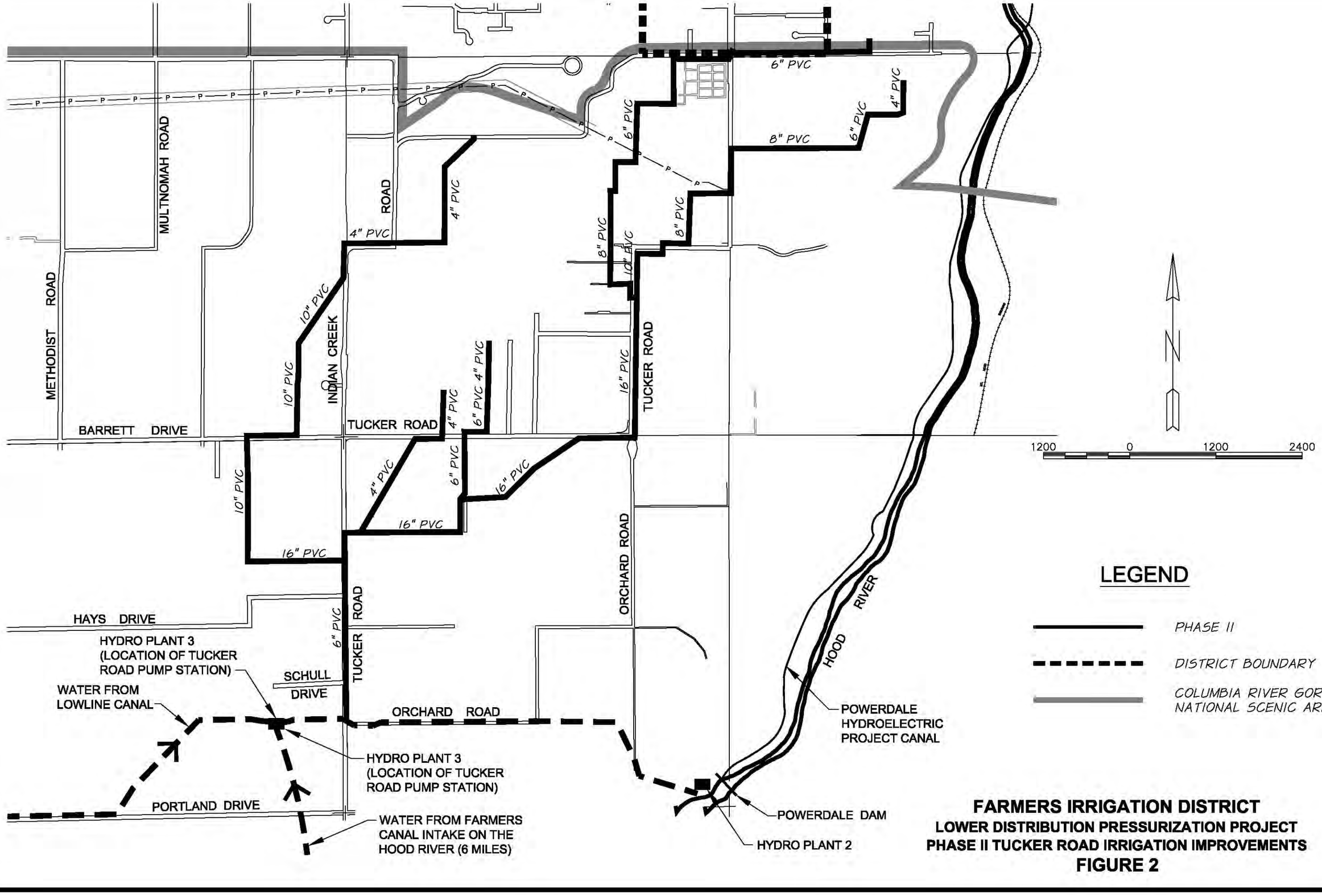


FARMERS IRRIGATION DISTRICT
LOWER DISTRIBUTION PRESSURIZATION PROJECT
PHASE II TUCKER ROAD IRRIGATION IMPROVEMENTS
FIGURE 2

CHAPTER 2 - ALTERNATIVES

This chapter describes the alternatives being considered and evaluated in this EA. It includes the preferred alternative and the no action alternative. NEPA requires Federal agencies to analyze the no action alternative (40 CFR Sec. 1502.14) to clearly contrast and define the consequences of the proposed project to the human environment. The action alternatives must include a range of reasonable alternatives. Due to the nature of the proposed project the range of action alternatives is limited to the project proposed by FID in their request for Water 2025 funds. This EA will address Reclamation's preferred alternative of contributing funding to FID's Phase II pipeline.

2.1 No Action Alternative

The No Action alternative is to withhold Water 2025 Federal grant funds. If the No Action alternative is chosen, Reclamation would not cost share with FID for installation of the Phase II pipelines. The FID would continue to use the existing canals and pipelines. No system modifications would be made unless the District obtains other sources of funds, and efficiencies in water delivery and conservation of water would not occur in the foreseeable future. The aging canals and pipelines would continue to deteriorate and require frequent and costly maintenance. The no action alternative does not meet the standards set by the FID Board of Directors to improve efficiency and promote conservation of water through improved irrigation practices.

2.2 Preferred Alternative

Under the Preferred Alternative, Reclamation would provide partial funding of up to $300,000 in support of Phase II of the FID pipeline project to install pressurized pipeline to improve 35,005 feet of existing canals and pipelines and to provide new pipelines and construction of a new pumping plant (Figure 2). There would be no changes in the operation of the irrigation district.

The project elements for the proposed action are:

2.2.1 Facilities

Pipeline Replacement and New Pipeline and Related Structures:

- Replacement of existing irrigation canal with pressurized pipe - 5,356 feet
- Replacement of existing pipeline with pressurized pipe - 24,153 feet
- Installation of new pressurized pipe in a new alignment - 5,496 feet
- Installation of valving vaults and individual customer service vaults - 517

Pipeline to Remain in Place and Abandoned:

- 31,625 feet of existing pipe will be abandoned in place.

Pump Station

The pump station at the end of Peters Road, the location for the FID Hydro Plant No. 3, will be updated within the station. The pump station will include an upstream screen intake facility, a triplex pumping system, and a downstream automatic pressure filter system. The existing horizontal flat plate screen at Hydro Plant No. 3 will be used to filter debris and sediment from the irrigation water.

The Tucker Road pump station will be located inside Hydro Plant No. 3. The building was designed with the intention of having a pump station eventually built in it. Two pumps with a total of 120 horsepower will be installed inside the northeastern corner of the building.

2.2.2 Construction Methods

Pipeline Installation

The pipeline and vaulting will occur in the existing canal and pipeline alignment except for certain areas. Installation will occur by excavation in the canal to remove surface vegetation and prepare the base of the canal for placement of fill material for structural support for the pipeline. FID will minimize the removal of trees and shrubs to the extent feasible. Excavated materials will be replaced over the top of the pipeline for protective cover. After the pipeline is covered, native grasses will be planted (as appropriate) to restore the vegetative covering. The width of the work area will be approximately 4 to 10 feet to construct a trench approximately 3 to 5 feet wide to accommodate the 4- to 21-inch diameter of the pipeline. In the areas of new alignment, a trench and fill will occur to install the pipeline and vaults.

If the preferred alternative is implemented, FID personnel and/or its contractors will install the pipeline during spring and summer 2005. Installation will be phased and sequenced so that irrigation deliveries are not interrupted.

Pump Station

The wall of Hydro Plant No.3 will have to be breached so a 21-inch gravity-fed pipe and a 12-inch pressurized pipe can be connected to existing pipe outside the plant. No other construction is necessary.

2.3 Other Alternatives Considered but Eliminated from Further Consideration

Other alternatives to improve conveyance of water and conservation of water are limited to either partial installation of pressure pipeline or conservation within the FID. Partial installation of pipelines has, in effect, been an ongoing program by the FID (Phases I and III). Phase II is the last area that will require pipeline installation to improve conveyance of flow and conservation of water in that area of the FID service area.

CHAPTER 3 - AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the natural and social resources that could be affected by a decision to implement either the No Action Alternative or the Preferred Alternative, as described in Chapter 2 of this EA. These resources are economics, hydrology, water quality, floodplains, wetlands, vegetation, fisheries, wildlife, ESA listed species, visual resources, recreation, land use, historic properties, Indian sacred sites, Indian trust assets, and environmental justice. Reclamation also considered, but eliminated from detailed analysis, the following resources because there are no potential impacts: climate, air quality, soils, geology, floodplains, mineral resources, noise, topography, energy, and hazardous wastes.

3.1 Hydrology

3.1.1 Affected Environment

The Hood River Basin drains the northern and eastern slopes of Mt. Hood. Water sources for FID irrigation and hydroelectric production include diversions on Green Point Creek, Dead Point Creek, and Gate Creek, along with a single diversion on Hood River. The water sources for the proposed project will not change, and no additional diversion of water is necessary for implementation of the proposed project. Presently, water that is diverted is used for irrigation and/or hydroelectric production, depending on the time of year. Hydroelectric production occurs throughout the year, while irrigation only occurs from March 1 through October 31. Water that is used for hydroelectric production passes through two powerhouses (Hydro Plants No. 2 and 3) and returns to the Hood River via the outfall of powerhouse of Hydro Plant No. 2 near Hood River river mile 4.5 (Figure 2).

PacifiCorp operates the Powerdale Hydroelectric Project that consists of the diversion at Powerdale Dam, the approximately 3-mile-long conveyance system, and the powerhouse at river mile 1.5 of the Hood River. The project is expected to be decommissioned in 2010.

Average monthly flows in the Hood River at Tucker Bridge (river mile 6.1), the outflow of the FID Hydro Plant No. 2 at Powerdale Dam, and the minimum flows below Powerdale Dam (river mile 4.5) are shown in Table 1. Tucker Bridge is approximately 2 miles upstream of Powerdale Dam, and there are two tributaries (Odell Creek and Neal Creek) between Tucker Bridge and Powerdale Dam. There are two irrigation diversions between Tucker Bridge and Powerdale Dam that divert a total of 0.073 cfs. No diversions of water occur below Powerdale Dam.

Table 1. Mean Monthly Flows (cfs) of the Hood River at Tucker Bridge; Estimated Mean Outflow from FID Hydro Plant No. 2; and Minimum Flows Below Powerdale Dam.

	Jan	*Feb*	*Mar*	*Apr*	*May*	*June*	*July*	*Aug*	*Sept*	*Oct*	*Nov*	*Dec*
Hood River at Tucker Bridge (USGS 14120000) Year 2002	1,892	1,012	1,081	1,498	1,193	1,103	599	319	278	329	358	511
Mean Flow of Hood River at Tucker Bridge for Period of Record	1,554	1,567	1,350	1,313	1,207	925	581	294	367	470	1,008	1,405
Source: USGS												
Estimated mean outflow of FID Hydro Plant No. 2 to Hood River at River Mile 4.5	86	80	81	94	47	23	19	10	16	69	80	86
Source: Jerry Bryan, Farmer Irrigation District, March 7, 2005.												
Minimum flow below Powerdale Dam	140	220	220	220*	I.F.**	I.F.**	250	250	250	250	220	140
Source: Rod French, District Fish Biologist, ODFW, March 7, 2005												

* April 1-14; April 15-30 minimum flow is I.F.
** I.F. = Minimum flow is inflow at Tucker Bridge minus 25 cfs.

Mean monthly flows are shown for year 2002 and for the period of record for the USGS gage at Tucker Bridge (Table 1). Flows from Odell Creek and Neal Creek (not shown) downstream of Tucker Bridge would slightly increase the monthly flows that reach Powerdale Dam. Monthly flows in year 2002 demonstrate high flows in winter and spring and low flows in summer and fall when snowmelt and precipitation have decreased and irrigation demands have increased. There are several reservoirs in the system, including Laurence Lake (approximately 3,500 acre-feet of storage) in the upper basin and two Kingsley reservoirs (approximately 1,000 acre-feet of storage), however they minimally influence flows in the lower Hood River. Numerous irrigation diversions that affect the amount of flow that reaches Powerdale Dam.

Flows below Powerdale Dam are influenced by the diversion of water by PacifiCorp and the return of water from the FID Hydro Plant No. 2 (Table 1). Flows returned to the Hood River by Hydro Plant No. 2 vary from approximately 10 cfs in August to 94 cfs in April. The variation of flow throughout the year (high in fall, spring, and winter and lower in summer) is due to the use of the water for both irrigation and hydropower production. In the summer, the lower flows are the remaining flows in the system that are not used for irrigation.

The minimum instream flows to protect water quality, fish, and recreation are shown in Table 1. Minimum flows vary depending on the month. Generally, the minimum flows are 140 to 250 cfs, except during May and June. During these months the minimum flow is the flow measured at the Tucker Bridge gage minus 25 cfs to keep the river flows at high levels for upstream and downstream migrating anadromous fish.

Presently, the flows below Powerdale Dam are heavily influenced by the Powerdale Hydroelectric Project, however after 2010, the dam and diversion facilities will be decommissioned and the diversion flows will be left in the river. Prior to 2010, the conserved flows achieved by the FID Preferred Alternative could partially be diverted by PacifiCorp for the Powerdale Hydroelectric Project, however the relatively high minimum flows (Table 1) will partially ensure that the return of conserved flows will remain in the river and help to achieve the minimum. The Powerdale hydroelectric Project will be decommissioned in 2010. At that time, no conserved flows will be diverted.

3.1.2 Environmental Consequences

Preferred Alternative

The proposed project will not have adverse impacts on flow in the Hood River and tributary stream systems. No additional flows will be necessary for the project, and no new diversions are proposed. The proposed project will improve flows in the lower 4.5 miles of the Hood River by allowing some water conserved by the project to pass through the system prior to 2010 when the Powerdale Hydroelectric Project will be decommissioned. After 2010, conserved flows will not be diverted. During the critical summer months (June, July, August, September, and October) when irrigation demands

exist and water conservation is most needed, there will be approximately 5 to 10 cfs returned to the lower 4.5miles of the Hood River, depending on the weather and growing conditions. This additional flow is approximately 2 to 4% of the minimum flow requirement for these months.

No Action Alternative

A decision to implement to No Action alternative will not cause any changes to the hydrology of the Hood River basin because FID would not change the methods or practices used to operate the water delivery system or the hydroelectric facilities.

3.1.3 Mitigation

No significant adverse impacts have been identified, therefore, no mitigation is proposed.

3.2 Water Quality

3.2.1 Affected Environment

Water quality in the Hood River watershed is affected by landslides in the upper basin that add sediments to the basin and increase the turbidity in the Hood River system. Various tributaries and the main stem have water quality parameters exceeding DEQ determined maximum levels. Table 2 lists the water quality parameters for the lower Hood River that impair the quality of the water. Various water quality parameters do not meet standards primarily during summer's low flows; however a water temperature Total Maximum Daily Load (TMDL) was established for water temperature in the lower Hood River where water will return to the Hood River after passing through the project.

The Oregon Department of Environmental Quality (DEQ) Water Quality Laboratory monitored the Hood River in the City of Hood River at the HWY 30 Bridge and at the footbridge north of Interstate 84. The monitoring studies indicate that water quality is occasionally affected by high levels of total phosphates, biochemical oxygen demand, and fecal coliform during heavy precipitation and high flows. This indicates the introduction of inorganic and organic materials to the water by erosion and runoff from fields, ditches, and storm drains. Moderately high water temperatures and high levels of total phosphates, biochemical oxygen demand, and total solids during summer low flow periods have been noted. These concentrations increase as less water is available for dilution. DEQ reports that, on average, water quality in the Hood River is good in the summer and fair during the fall, winter, and spring (DEQ http://www.deq.state.or.us/lab/wqm/wqimain.htm)

3.2.2 Environmental Consequences

Preferred Alternative

Implementing the Preferred Alternative would not degrade water quality in the Hood River basin. Water discharged into the Hood River is water that was diverted from the basin, flowed through the pipelines and powerplant facilities, and was not used for irrigation. The water is not heated in subsurface pipes as happens in open canals. No enrichment of the diversion water occurs as a result of irrigation and/or hydroelectric uses. There is no irrigation runoff or drainage that returns water to the closed water conveyance system. Therefore, no impacts on water quality have been identified.

No Action Alternative

No changes to water quality in the Hood River basin would result from the No Action alternative.

3.2.3 Mitigation

No significant adverse impacts have been identified, therefore no mitigation is proposed. However, FID would implement the following environmental commitments for water quality resources:

- FID will return conserved water to the Hood River near river mile 4.
- FID will apply erosion control measures during any construction, maintenance, or improvement to avoid or minimize loss of soil to the canal. These measures would include erosion-control silt curtains and hay or straw bales, as appropriate to avoid or minimize impacts to water quality.

Table 2. Water Quality Parameters on the Oregon Department of Environmental Quality 303(d) list, and Water Quality Parameters that have TMDLs Established.

	Waterbody Name	Sub-Basin	River Mile	Parameter	Season	List Date	Listing Status
1225	Hood River	MIDDLE COLUMBIA-HOOD	0 to 14.6	Fecal Coliform	Summer	1998	Attaining Criteria/Uses
1229	Hood River	MIDDLE COLUMBIA-HOOD	0 to 14.6	Dissolved Oxygen		1998	Attaining Criteria/Uses
1230	Hood River	MIDDLE COLUMBIA-HOOD	0 to 14.6	Chlorophyll a	Summer	1998	Attaining Criteria/Uses
1265	Hood River	MIDDLE COLUMBIA-HOOD	0 to 14.6	pH	Summer	1998	Attaining Criteria/Uses
1274	Hood River	MIDDLE COLUMBIA-HOOD	0 to 14.6	Sedimentation		1998	Insufficient/No Data
1296	Hood River	MIDDLE COLUMBIA-HOOD	0 to 14.6	Pesticides		1998	Insufficient/No Data
1310	Hood River	MIDDLE COLUMBIA-HOOD	0 to 14.6	Fecal Coliform	Winter/Spring/ Fall	1998	Attaining Criteria/Uses
1311	Hood River	MIDDLE COLUMBIA-HOOD	0 to 14.6	pH	Winter/Spring/ Fall	1998	Attaining Criteria/Uses
1312	Hood River	MIDDLE COLUMBIA-HOOD	0 to 14.6	Dissolved Oxygen	Summer	1998	Attaining Criteria/Uses
1321	Hood River	MIDDLE COLUMBIA-HOOD	4.6 to 14.6	pH	Summer	1998	Attaining Criteria/Uses
1244	Hood River	MIDDLE COLUMBIA-HOOD	0 to 14.6	Flow Modification		2002	Water Quality Limited Not Needing a TMDL
1320	Hood River	MIDDLE COLUMBIA-HOOD	1.5 to 4.6	pH	Summer	2002	Attaining Criteria/Uses
1316	Hood River	MIDDLE COLUMBIA-HOOD	1.5 to 4.6	Temperature	Summer	2002	TMDL Approved
1317	Hood River	MIDDLE COLUMBIA-HOOD	4.6 to 14.6	Temperature	Summer	2002	TMDL Approved

Source: Oregon Department of Environmental Quality 2002 303(d) list of impaired waters in Oregon.

3.3 Wetlands

3.3.1 Affected Environment

The locations where canals and/or pipelines would be replaced were investigated for wetlands within the areas of proposed improvement construction. The majority of the project area investigated consists of existing pipelines or corridors where improvements would occur. Theses areas are road right-of-way, commercial land, industrial land, rural residences, and orchards. There was no indication of wetland conditions within these areas.

Discussions (July 23, 2004) and a field meeting (August 3, 2004) occurred with Steve Morrow of the Oregon Department of State Lands (DSL) to discuss the project (Morrow, 2004). Based on that meeting, he determined that the project likely is not a jurisdictional project because the irrigation canals operate only during irrigation season, there are no fish in the irrigation canals because of state-of-the-art fish protection, and there is no direct connection (other than the screened intake and the power plant outfall) to the Hood River. In addition, Mr. Morrow requested a permit application and wetland delineation to demonstrate the nature of the soils, vegetation, and hydrology. Subsequently, a wetland delineation report (Craven Consulting Group, 2005) and Joint Permit Application were submitted to DSL and the Army Corps of Engineers (COE). DSL responded on February 18, 2005, that a state removal-fill permit is not required (Appendix A). The COE responded on March 21, 2005 that a permit is not required (Appendix A).

3.3.2 Environmental Consequences

Preferred Alternative

There are no wetlands affected by Phase II.

No Action Alternative

The implementation of the No Action Alternative will not cause a loss of wetland functions as compared to implementation of the Preferred Alternative because no adverse or beneficial impacts to wetlands were identified for either alternative.

3.3.3 Mitigation

No adverse impacts have been identified, therefore no mitigation is proposed.

3.4 Vegetation

3.4.1 Affected Environment

A majority of the existing pipelines and proposed irrigation distribution improvements occur within road right-of-way or on commercial land, industrial land, rural residential land or in orchards. The following describes conditions found throughout all of the project area.

Roadways (approximately 25.6% of the pipeline length)

All existing pipeline improvements and proposed new pipelines along roadways will be constructed between the paved surface of the road and adjacent roadside ditches. These areas are surfaced with gravel and are void of vegetation. No work is proposed within the ditches or adjacent lands. There are no indications of wetland between the road surfaces and ditches within the entire project area. Roadway areas in the study corridor include portions of the following streets: Tucker Road, Indian Creek Road, Brookside Drive, Barret Drive, Hayes Road, Schull Road, Martin Road, Jeanette Road, and Eliot Drive.

Commercial and Industrial (approximately 10.8% of the pipeline length)

The commercial and industrial area conditions consist primarily of paved or gravel surfaces and are mostly business frontages. Also present are a power transfer station and two cemeteries. The ground at the power station is composed of gravel surfaces and the cemeteries have vegetation, which consists of mowed lawns, arbrovitae, Oregon oak (*Quercus garryana*) and ornamental trees.

Rural Residential and Orchards (approximately 47.6% of the pipeline length)

The rural residences consist of variable land types. Mowed lawns and landscaped yards with primarily ornamental trees and shrubs are common. Some of the larger lots are kept as pasture land for livestock. The pasture communities consist of abandoned orchards, Oregon oak, snowberry (*Symphoricarpos albus*), Himalayan blackberry (*Rubus discolor*), timothy grass (*Phleum pratense*), ryegrass (*Lolium perenne*), clover (*Trifolium* sp.), thistle (*Cirsium arvense, C. vulgare*), soft rush (*Juncus effusus*), reed canary grass (*Phalaris arundinacea*), and orchard grass (*Dactylis glomerata*).

Orchards make up a moderate portion of the adjacent and proposed activity areas. Apple and pear trees are the common crop. Between the rows of trees the ground is maintained as mowed grass with barren ground at the base of the trees.

Canals (approximately 16% of the pipeline length)

Four areas of the canals were evaluated for vegetative types based on discussions with Oregon Department of State Lands (Craven Consulting Group, 2005). The areas selected

are shown on Figure 3. Vegetation at location SP-A consists of a mixed upland forest community Oregon oak, Ponderosa pine (*Pinus ponderosa*), and Douglas-fir (*Pseudotsuga menziesii*) as the canopy. Service berry (*Amelanchier alnifolia*), snowberry, poison oak (*Toxicodendron quercifolia*), and Oregon grape (*Berberis aquilifolium*) are in the understory.

Vegetation at SP-B is dominated by weedy upland grasses and shrubs. The community consists of a couple of small Douglas-fir and Ponderosa pine, with scotch broom (*Cytisus scoparius*), oatgrass (*Arrhenatherum elatius*), and thistle (*Machaeranthera canescens*) comprising most of the vegetation coverage. This is an upland vegetation community.

Vegetation in the area of SP-C consists of Himalayan blackberry, scotch broom, thistle, sweet vernal grass (*Anthoxanthum odoratum*), and reed canary grass. This community is dominated by upland vegetation.

Vegetation at SP-D consists primarily of reed canary grass.

3.4.2 Environmental Consequences

Preferred Alternative

Impacts on vegetation from installation of the pipeline corridor will be minimal to non-existent in roadways, rural residential land and orchards, and commercial and industrial areas. Vegetation in these areas consists of lawn grasses or roadside vegetation that is maintained by property owners or the County. Impacts on vegetation in canals that consist of approximately 20.3% of the pipeline will be minimal and confined to the existing canal right-of-way. Diameter-breast-height (DBH) of trees that are expected to be removed is less than 3 inches. Vegetation adjacent to the canals and leaking pipelines may have received moisture that facilitates growth. The impact on vegetation in these areas has not been estimated, but is anticipated to be minimal.

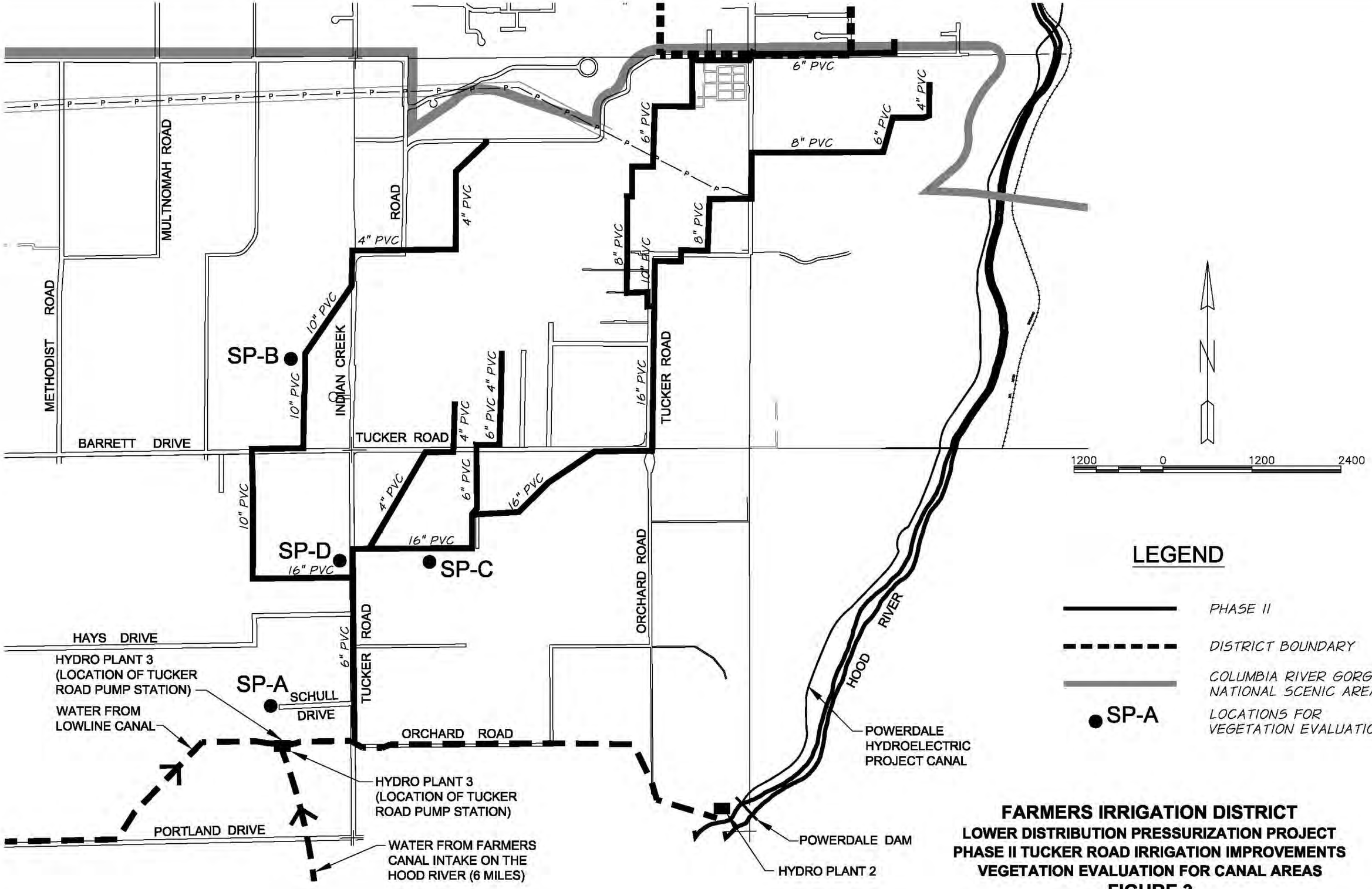
No Action Alternative

If Phase II is not implemented there will be no change to the vegetation communities within the project area.

3.4.3 Mitigation

FID will implement the following mitigation measures:

- For vegetation removal in or along the canal corridor, minimize removal by designing construction around mature vegetation as possible and feasible,
- Reseed the pipeline alignment and work areas with native grasses where vegetation was removed or disturbed.



FARMERS IRRIGATION DISTRICT
LOWER DISTRIBUTION PRESSURIZATION PROJECT
PHASE II TUCKER ROAD IRRIGATION IMPROVEMENTS
VEGETATION EVALUATION FOR CANAL AREAS
FIGURE 3

Q:\FID\Avalon\dwg\FIG-1-BW.dwg, PHASE 3, 4/11/2005 10:13:34 AM, qprice

3.5 Fish and Wildlife

3.5.1 Affected Environment

Fish are present in the Hood River at and below Powerdale Dam where the conserved flows will be returned. Fish species present include spring and fall Chinook salmon (On*corhynchus tshawytscha*), summer and winter steelhead (*Oncorhynchus mykiss),* sea-run cutthroat (*Oncorhynchus clarki clarki*), Pacific lamprey (*Lampetra tridentata*), coho (*Oncorhynchus kisutch*), bull trout (*Salvelinus confluentus),* mountain whitefish (*Prosopium williamsoni*), sculpin (*Cottus* sp.), rainbow trout (*Oncorhynchus mykiss),* northern pikeminnow (*Ptychocheilus oregonensis*), and dace (*Rhinichthys* sp.). Other species that inhabit the Columbia River near the mouth of the Hood River also likely are present in the lower Hood River system (Vaivoda, 2005).

The FID diversions from rivers and creeks in the Hood River basin are all screened to prevent fish from entering and becoming stranded in the water conveyance system (see Section 3.6 Threatened and Endangered Species). There are no fish present in the system.

Wildlife in the developed project area is relatively limited (See: Section 3.6 Threatened and Endangered Species). Urbanization of the area with residences, commercial businesses, industrial facilities, and transportation corridors has resulted in disturbed areas that do not provide good habitat for wildlife. Nevertheless, wildlife species do either inhabit the remaining areas of vegetative covering or pass through the area. Opossum (*Didelphis virginiana*), skunk (*Mephitis mephitis*), raccoons (*Procyon lotor*), coyote (*Canis latrans*), black-tailed deer (*Odocoileus hemionus*) and other species, such as song birds, raptors, amphibians and reptiles are reported in the area (Bryan, 2005).

3.5.2 Environmental Consequences

Preferred Alternative

Fisheries resources in the pipeline corridor would not be adversely affected as a result of the proposed action because fish are not present; however the proposed project would benefit fish in the lower 4 miles of the Hood River (See: Section 3.1 Hydrology). The conservation of water as a result of the proposed project will allow additional water to pass through the pipeline system to reach the lower 4.5 miles of the Hood River after passing through FID Hydro Plant No. 2.

Impacts on wildlife are expected to be minimal in the highly urbanized areas and transportation corridors. Some vegetation will be removed for installation of the pipeline in the existing canals; however because the pipeline can be installed in the existing canal system, vegetation removal will either be minimized or avoided. The proposed action would not adversely affect wildlife habitat and resources in the area because of the

minimal amount of vegetation removal and the confinement of the pipeline to existing rights-of-way. According to ODFW (2004b) only minimal impacts on wildlife would be anticipated by implementation of the proposed project.

No Action Alternative

The implementation of the No Action Alternative will not affect fish and wildlife species or their habitat in the pipeline corridor.

3.5.3 Mitigative Measures Proposed by the Farmers Irrigation System

Mitigative measures proposed by the FID are:

- Minimize the removal of vegetation from the existing canal system during construction to install the pipeline.
- FID would continue the current practice of ensuring that water diversions are screened to prevent accidental diversion of fish into irrigation systems.

3.6 Threatened and Endangered Species

3.6.1 Affected Environment

On July 19, 2004 Reclamation requested a list of species that are threatened, endangered, or proposed for listing under the ESA from the USFWS. The USFWS provided a response on September 8, 2004. Five ESA species potentially occur in the project area: Chinook salmon, steelhead, Coho salmon, bull trout, and bald eagle (Table 3).

Three fish species protected under the federal ESA are known to be present in the Hood River system and its tributaries (Table 3). All three species are listed as "Threatened" and may use various reaches of the Hood River system for migration from the Columbia River to spawning and rearing areas. An additional species, Coho salmon, although not listed is proposed for listing as Threatened. None of these species is expected to be present in the existing canal system. Fish are prevented from entering the canal system at the various diversions by the present fish protection systems that are in place. Critical Habitat is proposed for Chinook and steelhead and designated for bull trout.

Table 3. Federally Listed or Proposed Fish and Wildlife Species, Evolutionary Significant Units (ESUs), Critical Habitat Designation, and Essential Fish Habitat for Species Potentially Present at the Project Site.

Common Name	Scientific Name	ESU	Federal Status	Critical Habitat Designated	Essential Fish Habitat
Chinook Salmon	*Oncorhynchus tshawytscha*	Lower Columbia River	Threatened (3/1999)	Proposed 12/14/2004	Yes
Steelhead	*Oncorhynchus mykiss*	Lower Columbia River	Threatened (3/1998)	Proposed 12/14/2004	No
Coho Salmon	*Oncorhynchus kisutch*	Lower Columbia River	Proposed Threatened (6/2004)	N/A	Yes
Bull trout	*Salvelinus confluentus*	Columbia River Population	Threatened (6/10/1998)	Designated 11/5/2004	N/A
Bald eagle	*Haliaeetus leucocephalus*	N/A	Threatened (7/12/1995)	Not Designated	N/A

N/A = Not applicable

The largest diversion, the Farmers Canal on the Hood River, was screened with a state-of-the art fish screen developed and patented by Farmers Irrigation District. The fish screen received the approval of the ODFW, USFWS, and NOAA Fisheries for installation and underwent additional biological testing. A Biological Assessment was prepared for Endangered Species Act Section 7 Consultation and Magnuson-Stevens Act Essential Fish Habitat Consultation. NOAA Fisheries prepared a Biological Opinion (August 17, 2001) for approval of the fish screen on the Farmers Canal. USFWS prepared a Biological Opinion and Conference Report (September 4, 2001) for bull trout and coastal cutthroat trout.

The USFWS identified bald eagle as a federally listed Threatened species, potentially occurring in the vicinity of the project; however, no eagle nest sites occur in the project area (Issacs and Anthony, 2004). Based on the location of the project activities, the nearest nest is several miles from identified nest locations.

3.6.2 Environmental Consequences

Preferred Alternative

No adverse impacts are expected from installation of the pressurized pipeline system. There are no fish species present in the canal system that is dewatered each year after irrigation season. Oregon Department of Fish and Wildlife (ODFW) concurred that since

the canal system is screened at the point of diversion no impacts on fish species will occur (ODFW, 2004a).

The proposed project is expected to have a beneficial impact on species that use the lower 4.5 miles of the Hood River. Water that is conserved by installation of pipelines will flow back to the Hood River and provide approximately 5 to 10 cfs of flow during irrigation season when flows in the lower Hood River are normally low. The water temperature and water quality of the return flows are predicted to be similar to that at the point of diversion and the lower Hood River. The irrigation water is not chemically enriched or artificially heated. No measurable increases in water temperature or changes in water quality are anticipated as the water flows through the system. ODFW (2004a) also concurred that as long as the water quality of the returned flow has not been altered (i.e., warmed, chemically enriched), that no adverse impacts would be expected. The conserved flows will not be diverted for other uses downstream of Powerdale Dam. There are no diversions below the dam, and the Hood River Basin is closed for additional appropriation of water from Oregon Water Resources Department. ODFW also stated that once Powerdale Dam at river mile 4.5 is removed in 2010, the conserved flows will be fully available to benefit downstream uses, and likely will have a beneficial effect on species of fish listed under the ESA. Prior to 2010, water diverted at Powerdale Dam by PacifiCorp will be reduced during spring and part of the summer to protect fish resources.

A Biological Assessment (BA) was prepared to evaluate the impacts of the return of conserved flows to the lower 4.5 miles of the Hood River on Threatened and Endangered species of Chinook salmon, steelhead, and bull trout, and a Proposed Threatened species, coho salmon (Craven Consulting Group, 2005). The BA concluded that the project "may affect, but is not likely to adversely affect" any of the species, or their proposed or designated Critical Habitat. The return of the conserved water will provide a beneficial impact on fish resources.

No impacts on the bald eagle are expected since there are no known bald eagle nests or roosts in the project area (ODFW, 2004b). Construction timing (late spring and summer months) would further minimize impacts on wintering or breeding eagles that could be in the area.

No Action Alternative

The No Action Alternative would not result in an improved water conveyance system and water conservation. The existing system would continue to be inefficient and deterioration would continue to increase water loss. No additional flows would be directed to the Hood River for the benefit of species protected under the ESA. The benefits of increased flows for Threatened steelhead, Chinook, and bull trout, and Proposed Threatened coho would not be realized. Slight improvements to water quality that could benefit these species would not occur.

3.6.3 Mitigation

No mitigation has been proposed because there will be no adverse impacts on Threatened, Endangered, or proposed ESA species as a result of Phase II.

3.7 Economics

3.7.1 Affected Environment

The Hood River area's economy is primarily driven by agricultural practices for the timber and orchard industry as well as tourism relating to the Columbia River. The climate is mild year-round and the normal annual precipitation is 30 inches. Average temperature in January is 33.6° F and 72° F in July. The principal industries of Hood River include agriculture, timber, hydroelectric production, and recreation. The fertile Hood River Valley has an ideal climate for the production of apples, cherries, peaches, and pears. Fruit grown in the fertile valley is of such exceptional quality the county leads the world in Anjou pear production. There are more than 14,000 acres of commercial orchards growing pears, apples, cherries and peaches. The area also offers recreational activities such as snow skiing, boating, and fishing which bring both people and capital to compensate for the decline in logging and hydroelectric production. The Columbia River near Hood River is a premier windsurfing area and attracts windsurfers from throughout the United States and around the world. Hood River County also has two ports and two boat basins, with one serving local barge traffic, a steel boat manufacturing firm, and Mid-Columbia yachting interests (Oregon Blue Book.state.or.us).

The District's antiquated, open canal irrigation system is highly economically inefficient. Water loss from leaks, high permeability, and evaporation can be as high as 80 to 90 percent in some areas, averaging 20 to 40 percent depending on the specific area. Canal failures are expensive and wasteful, causing ecosystem damage, over diversion of water, loss of hydroelectric revenue, and wear and tear on people and equipment. Overtime expenses associated with open canal systems are high, and district staff must work late into the night to balance flows at the ends of the lines. Water delivery is unreliable, and temporary crews must be hired several times each year to cut down or remove vegetation, which results in additional expenses and interrupted irrigation water delivery. In-stream flow in the Hood River is greatly reduced due to open canals, and there also is the added liability of children playing near the open systems.

3.7.2 Environmental Consequences

Preferred Alternative

Economic benefits to the community resulting from the preferred alternative include minimization of adverse impacts on orchard production and other water users by maximizing the available water for a beneficial use as well as greater power production because of water conservation. The preferred alternative would reduce the maintenance required for FID and allow labor efforts to be directed to other FID activities. Replacing canals with pressure pipe greatly reduces or eliminates evaporative losses, overtime

payroll costs and extra crew expenses, ecosystem degradation, wasteful and inefficient water delivery, hydroelectric production losses, and liability problems. The District will realize a savings of approximately $20,000 annually in avoided operation and maintenance costs after factoring in the additional pumping costs required to pressurize the new system. FID potentially could realize at least $125,000 in revenues per year from increased power production (approximately 1.25 million kilowatts) from conserved water (Bryan, 2005).

According to FID (Bryan, 2005), implementation of the preferred alternative to improve reliability and conveyance beneficially would affect agricultural water users. Water users would have a more reliable supply that would enhance profits, increase viability of the orchard industry, and stabilize the work force. In the event of a water-short year, the proposed project would result in maximum use of available water, thereby reducing the potential for crop loss and economic losses to water users and the local community during dry years. Gross personal income is not expected to change appreciably because of the proposed action. Only minimal increases in employment opportunities would occur. FID would utilize its own personnel and some additional labor force for a few months during construction of the pipeline.

No Action Alternative

The No Action Alternative would maintain the existing canal and pipeline system. The conserved water would not be realized, and additional revenues to FID from increased hydroelectric production would not occur in the foreseeable future. Benefits to water users, such as reliability of the water distribution system, maintaining current levels of agricultural production because of less water lost to leaking canals and pipes, and stability of the work force would not occur. In addition, FID would continue to incur operation and maintenance costs attributable to the inefficient water conveyance system.

3.7.3 Mitigation

There are no specific mitigative measures proposed by the FID because no significant adverse impacts have been identified.

3.8 Visual Resources

3.8.1 Affected Environment

FID is located near areas of recognized scenic value. Views of Mt. Hood and the Columbia River are visible from many locations throughout the project area. The Columbia River Gorge National Scenic area is north of the Phase II project area. No portion of the Phase II pipeline alignment is located within the designated Columbia River Gorge Scenic Area boundary.

3.8.2 Environmental Consequences

Preferred Alternative

If the Preferred Alternative is implemented there will be no impacts on visual resources. The buried pipeline will not be visible. The pump plant is located adjacent to an existing structure and does not degrade the quality of visual resources.

No Action Alternative

There would be no impacts on visual resources if the Phase II project is not implemented.

3.8.3 Mitigation

There are no specific mitigative measures proposed because no impacts have been identified.

3.9 Recreation

3.9.1 Affected Environment

Recreational activities along the existing and proposed easements essentially do not exist. All easements for the canals and pipelines are in public rights-of-way, across private property in a highly developed area. The existing canal systems do not provide recreational opportunities, however recreational opportunities do exist in the lower Hood River when conserved water will be returned. Recreational activities in the lower Hood River consist of fishing, hunting, hiking, site-seeing, and rafting.

3.9.2 Environmental Consequences

Preferred Alternative

No adverse impacts have been identified on recreation resources. No construction activities will occur within the lower Hood River. The expected increase in flow (5 to 10 cfs) from the conserved water will only minimally increase water surface elevation and is not likely to appreciably improve recreational opportunities in the lower 4.5 miles of the Hood River. Minimal beneficial impacts on recreational pursuits can be expected to occur.

No Action Alternative

Recreational activities will not be affected by the No Action alternative.

3.9.3 Mitigation

There are no specific mitigative measures proposed because no adverse impacts have been identified.

3.10 Land Use

3.10.1 Affected Environment

Land use in the project area is residential, commercial, industrial, transportation corridors, and orchards. The existing canals and pipeline have legal easements through private property and public rights-of-way and are allowed land uses.

3.10.2 Environmental Consequences

Preferred Alternative

Land use designations would not change as a result of the proposed project. The proposed action would not change the present land use or conflict with existing land use regulations. No lands would be taken out of production or prevented from use by the landowner. No impact to undeveloped land within the FID service area would occur as the result of the proposed action.

No Action Alternative

The implementation of the No Action Alternative would not result in changes to local land use patterns.

3.10.3 Mitigation

There are no specific mitigative measures proposed because no significant adverse impacts have been identified

3.11 Historic Properties (Cultural Resources)

3.11.1 Existing Conditions

Historic Overview

At the time of Euro-American entry into the Pacific Northwest, the Columbia Gorge corridor from The Dalles downstream to the Washougal River was home to a variety of Chinookan peoples, including the Wishram, Wasco, White Salmon, and Cascades groups. Most accounts identify the Hood River Valley as the ancestral home of the Hood River Band, sometimes called the Dog River Band. The land in which these people lived was rich in natural resources. The river corridor and associated upland areas provided edible roots, berries, acorns, other plant foods, fish, and a variety of game. Anadromous fish

were of particular dietary and economic importance. This bounty allowed the Indian peoples to live a semi-sedentary existence, typically focused around large permanent villages.

The Columbia River was then, as is now, a major regional transportation corridor. As a result, tribes along the river were the first to encounter European and American explorers into the interior Northwest. A result of contact was transmission of infectious diseases to which the native people had no natural immunity. Between the first and second European exploratory trips up the lower reaches of the Columbia, a massive epidemic swept through the villages, killing a large proportion of the residents on the lower river and affecting populations further upstream. Subsequent epidemics and the associated social disruption made it difficult for survivors to maintain their lifeways and retain claim to lands in the face of non-Indian settlement. Assimilation, inter-marriage, and dispersal so reduced the native populations that, by 1930, only 233 members of the various Chinookan peoples remained. Many survivors relocated to the Warm Springs Reservation, established under the Treaty of June 25, 1855.

Euro-American settlement along the Columbia began in 1812, with establishment of Fort Astoria. By 1823 the Hudson's Bay Company had established trading posts along the Columbia and its major tributaries, operated from headquarters at Fort Vancouver. Intensive settlement began in 1846, after the Pacific Northwest became United States territory. Settlement in the Hood River vicinity began in 1852, and a post office was established there in 1858. The Town of Hood River was incorporated in 1894. By that date, the area already supported a thriving commercial orchard industry.

FID is linked to early entrepreneurial agricultural development of the Hood River area. Briefly, local history attributes establishment of the Farmers Irrigation Company to J. Frank Davenport, who settled with his family in the Hood River vicinity in 1890. Davenport was involved in logging and lumber milling, and expanded his interests into irrigation development in the 1890s. He recognized that a larger and more reliable water supply was needed to maximize orchard production. Between 1895 and 1897, Davenport constructed an irrigation canal that is certainly the FID's Farmers Ditch. Davenport encountered financial difficulties when building the ditch and it appears that the irrigation company was never sufficiently profitable to allow him to recoup his initial investment. It is not clear when the Farmers Irrigation Company became the Farmers Irrigation District, but it likely happened sometime after 1918, when Davenport is reported to have sold his company to a group of fruit growers.

Little information is available describing the physical characteristics of Davenport's original system, other than that it consisted of a canal reported to be 11 miles in length with the capacity to serve 10,000 acres. That capacity estimate is almost certainly very optimistic, given that the present system, augmented with other water sources, serves only slightly more than half that acreage. The canal was a combination of open ditch and elevated flume. A 1929 report indicates the Farmers Ditch was 8 miles long and 9 feet in width, and that there were 18.75 miles of laterals associated with the ditch. The laterals were indicated to be open ditches with sections in pipe, using wood, concrete, and steel

piping materials. Many modifications to the system occurred in 1929: Farmers Ditch was modified, new delivery canals were added, and most open laterals were replaced with buried pipe. Most of the Tucker Road subsystem pipe was installed in the 1960s-1970s.

Project Investigations and Historic Properties

Section 106 of the National Historic Preservation Act requires that Federal agencies determine if a Federal action has the potential to affect historic properties. Reclamation's provision of partial funding to FID constitutes a Federal action. To comply with Section 106, Reclamation completed tribal notifications, background research into previously documented resources, and archeological investigations of the potential impact areas.

Briefly, in August 2004, the Warm Springs Tribes were notified of the proposed action and asked to inform Reclamation if they are aware of archeological sites or traditionally important resources in the area. They were contacted again in association with National Environmental Policy Act public outreach efforts. No response has been received from the Warm Springs Tribes as of this time. A Reclamation contractor completed background research in site files at the State Historic Preservation Office (SHPO), the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) cultural resources office, and the U.S. Forest Service office and other locations in the Hood River vicinity. They researched the history and past modifications to the FID irrigation system, and results of past archeological investigations in the general area. Research efforts demonstrated that no archeological or historical sites or traditional cultural properties had been previously recorded or reported in or near the potential project impact area, and provided the historical information about FID's development that is summarized above. The contractor then completed an archeological reconnaissance of the potential impact area. They found most of the construction corridors had been extensively disturbed by earlier ditch construction or pipe placement, or by road or other construction activities. The remaining areas were disturbed by agricultural use or landscaping. They then completed a pedestrian survey of the entire alignment, except for two short stretches where existing pipe will be used without modification. No archeological sites were recorded during the survey. The only isolated materials found were recent trash.

Application of Oregon State Law

State law (358.905, *Archaeological Objects and Sites*; 97.750, *Indian Graves and Protected Objects, Permitted acts; notice*; OR 390.235, *Permits and conditions for excavation or removal of archaeological or historical material*.) defines requirements for investigations on non-Federal lands in the State of Oregon. All of the proposed actions will occur on non-Federal lands. These laws would pertain if human remains of Indian origin or archeological materials were found during the course of project implementation. ORS 97.740 defines requirements if human remains are encountered during an action other than archeological investigation. Any such discoveries must be reported to the State police, the SHPO, appropriate Indian tribes, and the Commission on Indian Services. ORS 97.750 requires issuance of a State permit by the Oregon SHPO before

implementing archeological investigations that affect human remains. ORS 358.940 requires reinternment of Indian remains and associated funerary objects recovered as part of archeological investigations. ORS 390.235 requires that any archeological investigation that may alter a site can occur only following issuance of a State permit by the Oregon SHPO. Although State law pertaining to permits will apply, consultative and investigative procedures defined in Federal law (Section 106 of NHPA) still apply.

3.11.2 Impacts on Resource

Reclamation has determined that the Tucker Road laterals are not eligible to the National Register of Historic Places. This determination is primarily based upon lack of physical integrity of design and materials both within the Tucker Road element and throughout the Farmers Ditch unit of the FID. Although construction and initial operation of the Farmers Ditch unit is associated with a person who appears to have been important in historical development of the Hood River area, Reclamation does not find this sufficient to negate the poor physical integrity. On January 4, 2005, Reclamation initiated consultation with the Oregon SHPO, and in a letter dated February 28 the SHPO concurred with that determination.

Reclamation has determined that there is little likelihood that the action will affect archeological sites or traditional cultural properties. No sites were found during the archeological survey, and damage caused by construction activities likely would have destroyed any cultural deposits that might once have been present. Although there is a chance that relatively intact archeological deposits might be present beyond the survey corridor and outside the damaged zone, the new construction activities will not extend to impact those more intact areas. On January 5, 2005, Reclamation initiated consultation with the Oregon SHPO, requesting that they concur that the investigations completed were sufficient to meet the requirements of law. In a letter dated February 12, the Oregon SHPO concurred that the project will have no effect on historic properties and no further archeological investigations are needed.

3.11.3 Mitigation

No mitigative measures are proposed because no adverse impacts have been identified. However, there is limited potential that buried archeological deposits or human remains could be present that were not visible during survey and were not destroyed by prior construction or land use. In consideration of this potentiality, FID will meet the following environmental commitments:

- If archeological materials are found during construction, FID will immediately halt construction activities in the vicinity of the discovery and notify Reclamation and the Oregon SHPO of the discovery. The find will be examined by a professional archeologist to confirm that it is archeological in nature. If it is, then Reclamation will notify the SHPO and proceed pursuant to ORS 390.235. No work will proceed in the vicinity of the discovery until all consultations required to comply with Section 106 of NHPA have been completed, the conditions of any

State permit issued under ORS 390.235 have been met, and Reclamation has provided a written notice-to-proceed to FID.

- If human remains are discovered during construction of the pipeline system, FID will immediately notify Reclamation. Verbal notification will occur the day of the discovery, followed by written notice within 2 days of discovery. They will immediately halt construction in the vicinity of the find, and work will not commence until a qualified person has examined the discovery and its location to assess if they are human and if they are Indian remains. If they are Indian remains, then FID will notify the SHPO and comply with all requirements pursuant to State Code ORS 97.740-750 and ORS 358.940. When FID provides Reclamation with certification that they have complied with these requirements, then Reclamation will provide a written notice-to-proceed; no disturbance can occur in the vicinity of the human remains until that notice is received.

3.12 Indian Sacred Sites

3.12.1 Affected Environment

Executive Order 13007 defines an Indian sacred site as "any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion." None of the lands affected by the proposed action are Federal fee lands or lands where Federal easements or other realty interests pertain. There is no corollary statute in State codes pertaining to Indian sacred sites on non-Federal lands.

Regardless, Reclamation is not aware of Indian religious sites or places sacred nature in or near FID lands. On August 23, 2004, Reclamation notified the Warm Springs Tribes of the proposed project and asked that they notify the agency if there were traditional cultural properties in or near the area. No response has been received from the Warm Springs Tribes as of this time. If sites were once present, they would not have been accessible for traditional religious use since the lands passed to private ownership. This likely occurred as much as 150 years ago. Also, the extent of past disturbance to lands affected by the proposed action likely destroyed the religious or sacred value of any such sites that might have once been present.

3.12.2 Environmental Consequences

Preferred Alternative

No impacts would occur under EO 13007 because that authority does not extend to non-Federal lands. Reclamation has not been informed that there are any sites that might be of a religious or sacred nature in or near the project area.

No Action Alternative

Implementation of the No Action Alternative would not result in adverse or beneficial impacts on Indian sacred sites.

3.12.3 Mitigative Measures Proposed by FID

No mitigative measures are proposed because no sites have been identified.

3.13 Indian Trust Assets

3.13.1 Affected Environment

The Bureau of Indian Affairs (BIA) was contacted regarding potential Indian Trust Assets (ITAs). ITAs are legal interests in property held in trust by the United States for Indian tribes or individuals, or property that the United States is otherwise charged by law to protect. Examples of resources that could be ITAs are lands, minerals, hunting and fishing rights, water rights, and instream flows.

FID lands are among those ceded to the United States by the Warm Springs Tribes under the Treaty of June 25, 1855; however the Tribes retained certain fishing, hunting, and gathering rights under the treaty.

3.13.2 Environmental Consequences

Preferred Alternative

No adverse impacts have been identified at this time. Implementation of the project will not adversely affect ITAs. By improving instream flows, this project will benefit fish and ITAs such as fish resources.

No Action Alternative

Implementation of the No Action Alternative would not result in negative or beneficial impacts on Indian Trust Assets.

3.13.3 Mitigation

There are no specific mitigative measures proposed by the FID because no significant adverse impacts have been identified.

3.14 Environmental Justice

3.14.1 Affected Environment

The February 11, 1994 Presidential Executive Order 12898 (EO) defines environmental justice as "disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations." The EO is intended to protect minority and low-income communities from discriminatory projects or practices that can result in a more hazardous or degraded human environment caused by a Federal action. Federal agencies are directed to analyze the effects of Federal actions on minority and low-income communities and to avoid those impacts to the extent that is practicable.

Population estimates, distribution of minority population, and income levels for year 2000 for Hood River County as compared to Oregon are shown below. Based on these statistics, Hood River County has a relatively high percentage of its population that consists of Hispanic or Latino origin, or a race other than white, African American, American Indian, or Alaska Native persons.

	Hood River County	**Oregon**
Population 2000	20,411	3,421,399
Persons under 18 years old	28.0%	20.4%
Persons over 65 years old	12.9%	12.8%
White Persons	78.9%	86.6%
Black or African American Persons	0.6%	1.6%
American Indian and Alaska Native Persons	1.1%	1.3%
Asian Persons	1.5%	3.0%
Persons of Hispanic or Latino Origin	25.0%	8.0%
Persons reporting some other race	15.4%	4.2%
Persons Reporting two or more races	2.5%	3.1%
Median Household Income	$38,326	$40,916

SOURCE: quickfacts.census.gov for Hood River County, Oregon.

3.14.2 Environmental Consequences

Preferred Alternative

The preferred alternative would not add, delete, or otherwise modify any housing units or land uses that could affect minority populations. Minimal employment opportunities would occur as a result of project construction, however no employment opportunities would be lost by implementation of the preferred alternative. Reclamation did not identify any minority and low-income populations as being adversely affected by this proposal.

No Action Alternative

Implementation of the No Action alternative would not result in negative or beneficial effects on Environmental Justice.

3.14.3 Mitigation

There are no specific mitigative measures proposed because no adverse impacts have been identified.

3.15 Cumulative Impacts

Cumulative impacts were evaluated by determining if there are other proposed or ongoing activities that could result in incremental impacts on various resources that could be affected by the proposed action. The potential for impacts has been considered by evaluating impacts of Phases I and III as well as attempting to identify other projects in the area.

No significant cumulative impacts have been identified because of the following:

- No other private projects have been identified that could, in combination with the proposed action, result in incremental impacts on any resources to cause a significant cumulative impact.
- The impact of Phases I and III will not measurably add to the impacts associated with implementation of Phase II of the project.

CHAPTER 4 - CONSULTATION AND COORDINATION

4.1 Agencies and Persons Consulted

4.1.1 Agencies

The following agencies were consulted in preparation of this environmental assessment:

Oregon Department of Fish and Wildlife
Confederated Tribes of the Warm Springs Reservation of Oregon
Hood River Soil and Water Conservation District
Port of Hood River
Oregon Department of Transportation
Hood River County, Board of Commissioner's Office
City of Hood River
Hood River County Public Works
State Historic Preservation Office, Oregon State Parks and Recreation Branch
NOAA Fisheries
U.S. Fish and Wildlife Service
Hood River City Hall
Oregon Department of Environmental Quality
Oregon Department of State Lands
Oregon Water Resources Department

4.1.2 Public Involvement

A project scoping letter and graphics showing the location of the proposed project dated October 19, 2004, was sent to recipients (Appendix B). Local, state, and federal agencies as well as land owners and interested parties were notified. The letter requested comments concerning the project. In addition, the FID notified their water users through newsletters to approximately 1,600 water users and the FID website of the preferred alternative. Only two public comments were received by mail (Appendix B). The comments are summarized below.

Commenter 1

- The commenter does not want the irrigation ditch buried after the pipe is installed. They want the 440 feet of ditch left open through their property.
- The reasons for the request because of the high water table in the area; the open ditch carries off extra winter water run-off and snow melt; and the property on the wet side of the open ditch has an underground spring that flows into the ditch; the open ditch helps keep the area around their house drier.

FID Response to Commenter 1

- FID will work with the landowner to minimize impacts by adjusting the pipeline alignment within the right-of-way easement to the extent feasible.

Commenter 2

- The commenter is opposed to any pipe installation on his property other than in a north-south easement. The property is zoned light industrial and the owner does not want the installation of the pipe in an east-west alignment that could affect his future development of the property.

FID Response to Commenter 2

- FID will work with the property owner to avoid or minimize impacts of the pipeline easement to the extent feasible by determining if a north-south alignment is feasible

4.2 Distribution List

The draft environmental assessment was mailed to the persons and agencies on the distribution list (Appendix B).

CHAPTER 5 - ENVIRONMENTAL COMMITMENTS

The EA preparation process has identified various opportunities to maintain or enhance the environment. The FID has considered the opportunities and includes the following as environmental commitments that will be implemented with the project. These commitments will be included as part of the Federal decision making process and, if the project is approved, would become conditions for the funding support by the Reclamation. The FID would be responsible for carrying out and overseeing all environmental commitments as described below:

5.1 Hydrology

FID will monitor the additional flows that reach the Hood River to determine the effectiveness of the pipeline project. The FID has at least five years of baseline data for irrigation flows that are measured at the irrigation canal diversion (at Hydro Plant no. 3). The FID also routinely measures discharge to the river through a flow meter at Hydro Plant No. 2. Therefore, the reduction in irrigation flow and the increase in return flow to the river can be quantified by comparing pre- and post-project data. Post-project data will continue to routinely be collected as long as the Hydro Plant No. 2 is in operation.

5.2 Water Quality

FID will apply erosion control measures during construction, maintenance, or improvement projects associated with the pipeline/canal easement to avoid or minimize loss of soil to the irrigation system and/or the Hood River. These measures would include erosion-control silt curtains and hay or straw bales, as appropriate.

5.3 Vegetation

FID will minimize vegetation removal during installation of the pipeline.

5.4 Wildlife

FID would minimize removal of vegetation during construction to minimize impacts on wildlife species and their habitat.

5.5 Threatened and Endangered Species

If, during normal agricultural practices, any listed endangered, listed threatened, proposed threatened plant species are discovered on FID lands or rights-of-way, FID would contact the U.S. Fish and Wildlife Service and NOAA Fisheries to determine if implementation of conservation or protection measures is appropriate.

5.6 Historic Properties (Cultural Resources)

If archaeological materials or human remains are found during construction, FID will immediately halt construction activities in the vicinity of the discovery and implement actions consistent with Section 3.12.3.

CHAPTER 6 – LIST OF PREPARERS

Richard Craven – Craven Consulting Group
Mike Holscher, Craven Consulting Group
Jennifer Switzer, Craven Consulting Group
Lynne MacDonald, Archeologist, Reclamation
Tanya Sommer, Natural Resource Specialist, Reclamation
Richard Pastor, Fisheries Biologist, Reclamation
Jerry Bryan, Farmers Irrigation District
Joe May, Farmers Irrigation District
Gina Price, Anderson-Perry Engineering Company

CHAPTER 7 – LITERATURE CITED AND REFERENCES

Bryan. 2005. Jerry Bryan. Project Coordinator, Farmers Irrigation District. Personal Communication. February 9, 2005; March 3, 2005.

Craven Consulting Group. 2005. Wetland Delineation for Farmers Irrigation District Phase II Improvements. Prepared for Farmers Irrigation District by Mike Holscher, Craven Consulting Group. January 10, 2005.

Isaacs, F.B. and R.G. Anthony. 2004. Bald eagle nest locations and history of use in Oregon and the Washington portion of the Columbia River Recovery Zone, 1971 through 2004. Oregon Cooperative Fish and Wildlife Research Unit, Oregon State University, Corvallis, Oregon, USA.

Morrow. 2004. Steve Morrow, Resource Coordinator. Oregon Department of State Lands. Personal Communication. July 23, 2004; August 3, 2004.

NOAA Fisheries. 2001. Endangered Species Act – Section 7 Consultation. Biological Opinion and Magnuson-Stevens Act Essential Fish Habitat Consultation August 17, 2001. OSB2001-0022-FEC.

ODFW. 2004a. Rod French, District Fish Biologist, Oregon Department of Fish and Wildlife. Personal Communication. September 22, 2004.

ODFW. 2004b. Kohl, Keith, District Wildlife Biologist, Oregon Department of Fish and Wildlife. Personal Communication. September 16, 2004; December 14, 2004; February 16, 2005.

Vaivoda, Alexis. March 29, 2005. Fish Biologist, Confederated Tribes of the Warm Springs Reservation of Oregon. Personal Communication.

Appendix A

Agency Correspondence

Oregon

Theodore R. Kulongoski, Governor

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 378-3805
FAX (503) 378-4844
www.oregonstatelands.us.

RECEIVED 2/28/05

February 18, 2005

STM02/33850
FARMERS IRRIGATION DISTRICT
ATTN: JERRY BRYAN
1985 COUNTRY CLUB RD
HOOD RIVER OR 97031

Re: State Application Number 33850-NSP
Farmers District Irrigation Canal, Phase II Improvements Near Tucker & Indian Creek Road

Dear Mr. Bryan:

We have received your application to fill up to 10,338 cubic yards and remove up to 10,612 cubic yards of material for the purpose of enclosing open water conveyances (irrigation canals) dug in uplands Sections 1, 2, 3, 10 & 11, Township 2N, Range 10E, Hood River County, Oregon. The Department of State Lands requires a permit if you plan to remove, fill or alter 50 cubic yards or more of material within the banks of most waters of the state or designated wetlands. State-designated Essential Salmon Habitat streams and State Scenic Waterways are exceptions in that any amount of removal, fill or alteration typically requires a permit.

Based on your application, your project involves removal or filling of material in waters that are not designated waters of the state. Therefore, a state removal-fill permit is not required.

You must also receive authorization, when required, from the U.S. Army Corps of Engineers and Hood River planning department before beginning construction.

If you have any questions, please call Steve Morrow at (503) 378-3805, extension 297.

Sincerely,

Lori Warner-Dickason
Western Region Manager, Field Operations
Department of State Lands

cc: Rod French, Oregon Dept. of Fish and Wildlife
Karla Ellis, Corps of Engineers, Portland District
Josette Griffiths, Hood River County Planning Dept.

LWD:jr
\\Salem5\FC\Attachment\west\LAS\NSP No Jurisdiction\33850-NSP No Jurisdiction.doc

DEPARTMENT OF THE ARMY
PORTLAND DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2946
PORTLAND, OREGON 97208-2946

March 29, 2005

REPLY TO
ATTENTION OF:

Operations Division
Regulatory Branch
Corps No.: 200500044

Mr. Jerry Bryan
Farmers Irrigation District
1985 County Club Road
Hood River, Oregon 97031

Dear Mr. Bryan:

The U.S. Army Corps of Engineers (Corps) has received your application to improve existing pipeline and irrigation ditches within Farmers Irrigation District. The project is located within the irrigation canal, Sections 1, 2, 3, 10, and 11, Township 2 North, Range 10 East, near Hood River, Hood River County, Oregon.

The Corps of Engineers has jurisdiction over water bodies under two statutory authorities: the Rivers and Harbors Act and the Clean Water Act.

Under Section 10 of the Rivers and Harbors Act of 1899, the Corps has authority to issue permits for structures or work (including excavation) in or affecting navigable waters of the United States. Limits of jurisdiction extend to the mean high water mark in tidally influenced areas and to the ordinary high water mark in non-tidal but navigable waters.

Under Section 404 of the Clean Water Act, the Corps has authority to issue permits for the placement of fill or dredged material in waters of the United States. The term "waters of the United States" includes the territorial seas and tidally influenced waters up to the high tide line. "Waters" also include all other waters, up to their ordinary high water mark, that are part of a surface tributary system to and including navigable (non-tidal) waters of the United States. Wetlands adjacent to these waters are also "waters of the United States".

The project area supports ditches that supply irrigation water to end-users and does not connect to a jurisdictional water of the U.S. Since this project (work within a non-jurisdictional water of the U.S.) does not involve structures or work in navigable waters of the United States, or the discharge of fill or dredged material into other waters of the United States, a Department of the Army permit is not required.

If you have any questions regarding our regulatory authority, please contact Ms. Karla G. Ellis at the letterhead address or telephone (503) 808-4377.

Sincerely,

Donald Borda
Acting Chief, Regulatory Branch

Copy Furnished:

Oregon Department of State Lands (Herkamp)
Environmental Protection Agency (Valette)
Richard Craven, Craven Environmental Consulting

United States Department of the Interior

TAKE PRIDE IN AMERICA

FISH AND WILDLIFE SERVICE
Oregon Fish and Wildlife Office
2600 SE 98th Avenue, Suite 100
Portland, Oregon 97266
Phone: (503) 231-6179 FAX: (503) 231-6195

Reply To: 8330.04991 (04)
File Name: Sp0499.wpd
TS Number: 04-3485

BUREAU OF RECLAMATION
OFFICIAL FILE COPY
SEP 0 8 2004
SEP 9 2004

TO	INIT	DATE
1000	KL	9/10
6500	KAS	9/10
6502	TEB	9/10
FILE		

ACTION MADE BY

Ronald Eggers
U.S. Bureau of Reclamation
825 NE Multnomah Street, Suite 1110
Portland, OR 97232-2135

Subject: Hood River Farmers Irrigation District Project
USFWS Reference # 1-7-04-SP-0499

Dear Mr. Eggers:

This is in response to your letter, dated July 19, 2004, requesting information on listed and proposed endangered and threatened species that may be present within the area of the Hood River Farmers Irrigation District Project in Hood River County. The Fish and Wildlife Service (Service) received your correspondence on July 24, 2004.

We have attached a list (Enclosure A) of threatened and endangered species that may occur within the area of the Hood River Farmers Irrigation District Project. The list fulfills the requirement of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). U. S. Bureau of Reclamation (BOR) requirements under the Act are outlined in Enclosure B.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems on which they depend may be conserved. Under section 7(a)(1) and 7(a)(2) of the Act and pursuant to 50 CFR 402 *et seq.*, BOR is required to utilize their authorities to carry out programs which further species conservation and to determine whether projects may affect threatened and endangered species, and/or critical habitat. A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) which are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (NEPA) (42 U.S.C. 4332 (2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to the Biological Assessment be prepared to determine whether they may affect listed and proposed species. Recommended contents of a Biological Assessment are described in Enclosure B, as well as 50 CFR 402.12.

If BOR determines, based on the Biological Assessment or evaluation, that threatened and endangered species and/or critical habitat may be affected by the project, BOR is required to consult with the Service following the requirements of 50 CFR 402 which implement the Act.

United States Department of the Interior

BUREAU OF RECLAMATION
Pacific Northwest Region
Lower Columbia Area Office
825 NE Multnomah Street, Suite 1110
Portland, Oregon 97232-2135

IN REPLY REFER TO

LCA-6500
ENV-7.00

JUL 19 2004

MEMORANDUM

To: State Supervisor, U.S. Fish and Wildlife Service, Oregon State Office, 2600 S.E. 98th Avenue, Suite 100, Portland, OR 97266
Attn: Kemper M. McMaster

From: Ronald J. Eggers
Area Manager /s/ RONALD J. EGGERS

Subject: Request for List of Threatened and Endangered Species Under the Endangered Species Act for the Proposed Farmers Irrigation District Lower Distribution Pressurization Project, Hood River County, Oregon

The Bureau of Reclamation's Water 2025 Program is proposing to contribute funds to the Farmers Irrigation District (FID) Lower Distribution Pressurization Project in Hood River County, Oregon. This cost-share project will conserve water for instream flows in the Hood River by converting existing open canal systems to pressurized pipe systems.

The FID Lower Distribution Project is located south of the City of Hood River, in the lower Cedar Creek and Indian Creek watersheds, and the lower Hood River subbasin. The project would replace sections of unlined canal with approximately 45,800 feet of pressurized pipeline. Water conserved through completion of this project would be returned to the lower 4 miles of the Hood River for improved instream flows during the summer irrigation season.

As part of Reclamation's Endangered Species Act (ESA) compliance procedure, we are formally requesting information on any listed and/or proposed endangered or threatened species that may be present in the project area, as required by the ESA of 1973 as amended. We request that your species list cover the location below:

Hood River County, Oregon T2N, R10E, S1,2,3,10,11

We would appreciate receiving the ESA species list at your earliest convenience. Please send your response and any other correspondence related to this project to me at the above address. If you have any questions regarding this project, please contact Ms. Tanya Sommer at 503-872-2846 or Mr. Richard Pastor at 503-872-2847.

bc: LCA-6500, LCA-6501, LCA-6502
BFO-3100

WBR:RPastor:KBlakney:REggers:rvaughn:7/19/04:503-872-2839

Enclosure A includes a list of candidate species under review for listing. The list reflects changes to the candidate species list published May 4, 2004, in the Federal Register (Vol. 69, No. 86, 24876) and the addition of "species of concern." Candidate species have no protection under the Act but are included for consideration as it is possible candidates could be listed prior to project completion. Species of concern are those taxa whose conservation status is of concern to the Service (many previously known as Category 2 candidates), but for which further information is still needed.

If a proposed project may affect only candidate species or species of concern, BOR is not required to perform a Biological Assessment or evaluation or consult with the Service. However, the Service recommends addressing potential impacts to these species in order to prevent future conflicts. Therefore, if early evaluation of the project indicates that it is likely to adversely impact a candidate species or species of concern, BOR may wish to request technical assistance from this office.

Your interest in endangered species is appreciated. The Service encourages BOR to investigate opportunities for incorporating conservation of threatened and endangered species into project planning processes as a means of complying with the Act. If you have questions regarding your responsibilities under the Act, please contact Kevin Maurice or Corissa Larvik at (503) 231-6179. All correspondence should include the above referenced file number. For questions regarding salmon and steelhead trout, please contact NOAA Fisheries Service, 525 NE Oregon Street, Suite 500, Portland, Oregon 97232, (503) 230-5400.

Sincerely,

KJ Maurice

for Kemper M. McMaster
State Supervisor

Enclosures
1-7-04-SP-0499

cc:
Nongame, Oregon Department of Fish and Wildlife, Salem, Oregon.

Northern red-legged frog	*Rana aurora aurora*
Fish	
Pacific lamprey	*Lampetra tridentata*
Invertebrates	
California floater (mussel)	*Anodonta californiensis*
Mt Hood primitive brachycentrid caddisfly	*Eobrachycentrus gelidae*
caddisfly (no common name)	*Lepania cascada*
caddisfly (no common name)	*Moselyana comosa*
One-spot rhyacophilan caddisfly	*Rhyacophila unipunctata*
Plants	
Howell's bentgrass	*Agrostis howellii*
Cliff paintbrush	*Castilleja rupicola*
Howell's daisy	*Erigeron howellii*
Oregon daisy	*Erigeron oreganus*
Suksdorf's lomatium	*Lomatium suksdorfii*
White meconella	*Meconella oregana*
Barrett's penstemon	*Penstemon barrettiae*
Oregon sullivantia	*Sullivantia oregana*

(E) - Listed Endangered *(T) - Listed Threatened* *(CH) - Critical Habitat has been designated for this species*
(PE) - Proposed Endangered *(PT) - Proposed Threatened* *(PCH) - Critical Habitat has been proposed for this species*
(S) - Suspected *(D) - Documented*

Species of Concern - Taxa whose conservation status is of concern to the Service (many previously known as Category 2 candidates), but for which further information is still needed.

(CF) - Candidate: National Marine Fisheries Service designation for any species being considered by the Secretary for listing for endangered or threatened species, but not yet the subject of a proposed rule.

** *Consultation with National Marine Fisheries Service may be required.*

[i] *U. S. Department of Interior, Fish and Wildlife Service, October 31, 2000, Endangered and Threatened Wildlife and Plants, 50 CFR 17.11 and 17.12*

[ii] *Federal Register Vol. 60, No. 133, July 12, 1995 - Final Rule - Bald Eagle*

[iii] *Federal Register Vol. 63, No. 53, March 19, 1998, Final Rule-West Coast Steelhead*

[iv] *Federal Register Vol. 64, No. 56, March 24, 1999, Final Rule - West Coast Chinook Salmon*

[v] *Federal Register Vol. 63, No. 111, June 10, 1998, Final Rule-Columbia River and Klamath River Bull Trout*

[vi] *Federal Register Vol. 66, No. 143, July 25, 2001, 12-Month Finding for a Petition To List the Yellow-billed Cuckoo*

[vii] *Federal Register Vol. 69, No. 86, May 4, 2004, Notice of Review - Candidate or Proposed Animals and Plants*

[viii] *Federal Register Vol. 62, No. 87, May 6, 1997, Final Rule-Coho Salmon*

Enclosure A

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES, CANDIDATE SPECIES AND SPECIES OF CONCERN THAT MAY OCCUR WITHIN THE AREA OF THE HOOD RIVER FARMERS IRRIGATION DISTRICT PROJECT
1-7-04-SP-0499

LISTED SPECIES[1/]

Birds		
Bald eagle[2/]	*Haliaeetus leucocephalus*	T
Fish		
Steelhead (Lower Columbia River)[3/]	*Oncorhynchus mykiss*	**T
Chinook salmon (Lower Columbia River)[4/]	*Oncorhynchus tshawytscha*	**T
Bull trout (Columbia River pop)[5/]	*Salvelinus confluentus*	PCH T

PROPOSED SPECIES

None

CANDIDATE SPECIES

Birds		
Yellow-billed cuckoo[10/]	*Coccyzus americanus*	
Fish		
Coho salmon (Lower Columbia River)[12/]	*Oncorhynchus kisutch*	**CF

SPECIES OF CONCERN

Mammals	
Pale western big-eared bat	*Corynorhinus townsendii townsendii*
Silver-haired bat	*Lasionycteris noctivagans*
Small-footed myotis	*Myotis ciliolabrum*
Long-eared myotis (bat)	*Myotis evotis*
Fringed myotis (bat)	*Myotis thysanodes*
Long-legged myotis (bat)	*Myotis volans*
Yuma myotis (bat)	*Myotis yumanensis*
Birds	
Band-tailed pigeon	*Columba fasciata*
Olive-sided flycatcher	*Contopus cooperi borealis*
Willow flycatcher	*Empidonax trailli adastus*
Harlequin duck	*Histrionicus histrionicus*
Mountain quail	*Oreortyx pictus*
Purple martin	*Progne subis*
Amphibians and Reptiles	
Oregon slender salamander	*Batrachoseps wrighti*
Northwestern pond turtle	*Emys marmorata marmorata*
Larch Mountain salamander	*Plethodon larselli*

United States Department of the Interior

BUREAU OF RECLAMATION
Pacific Northwest Region
Lower Columbia Area Office
825 NE Multnomah Street, Suite 1110
Portland, Oregon 97232-2135

IN REPLY REFER TO:
LCA-1000
PRJ-28:00

AUG 23 2004

Ms. Sally Bird
Tribal Archeologist
The Confederated Tribes of the
Warm Springs Reservation
P.O. Box C
Warm Springs, OR 97761-3001

Subject: Section 106 Consultations on the Proposed Tucker Road Irrigation Improvement Project

Dear Ms. Bird:

The Bureau of Reclamation is proposing to contribute funding to Farmer's Irrigation District's (FID) Tucker Road Irrigation Improvement Project in Hood River, Oregon. FID would receive a $300,000 grant to aid in their conversion of the Tucker Road segment of their irrigation system to pressurized pipe. Since 1995, FID has been incrementally replacing aging gravity-flow open ditches and pipe with new pressurized pipe using their own funds and grants from non-Reclamation sources. To date, over two-thirds of the District has been converted to pressurized pipe. FID's principal objective from the pipeline pressurization project is to reduce water consumption, and thereby reduce diversions from streams.

The Tucker Road segment is the last portion of the larger FID system to be converted to pressurized pipe. Specifically, the Tucker Road Irrigation Improvement Project would involve replacing the gravity fed irrigation system by installing approximately 7 miles of pressurized pipeline in alignments that are either currently existing open canal or existing non-pressurized pipeline, with some segments of new pipeline alignment. FID would also install a new pump station at the end of Peters Road within the existing District 3 Hydro-generation facility.

Earlier this year, FID notified the Confederated Tribes of the Warm Springs (Tribes) of the project. In a letter dated April 2, 2004, Mick Jennings of the Tribes' Department of Natural Resources wrote a letter in support of FID's grant application. We are contacting the Tribes again to determine if there are resources of interest to the Tribes on lands in the general Tucker Road project area (see enclosed figures). In particular, we would like to determine if there are archeological sites or traditional cultural properties important to the Tribes in the project vicinity. If you have knowledge of such sites or resources, or have reason to believe they are present, please inform us by September 20, 2004, so that we can begin more detailed discussions and

ENCLOSURE B

FEDERAL AGENCIES RESPONSIBILITIES UNDER SECTION 7(a) and (c) OF THE ENDANGERED SPECIES ACT

SECTION 7(a)-Consultation/Conference

Requires:

1) Federal agencies to utilize their authorities to carry out programs to conserve endangered and threatened species;

2) Consultation with FWS when a Federal action may affect a listed endangered or threatened species to insure that any action authorized, funded or carried out by a Federal agency is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of Critical Habitat. The process is initiated by the Federal agency after they have determined if their action may affect (adversely or beneficially) a listed species; and

3) Conference with FWS when a Federal action is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed Critical Habitat.

SECTION 7(c)-Biological Assessment for Major Construction Projects[1]

Requires Federal agencies or their designees to prepare a Biological Assessment (BA) for construction projects only. The purpose of the BA is to identify proposed and/or listed species which are/is likely to be affected by a construction project. The process is initiated by a Federal agency in requesting a list of proposed and listed threatened and endangered species (list attached). The BA should be completed within 180 days after its initiation (or within such a time period as is mutually agreeable). If the BA is not initiated within 90 days of receipt of the species list, the accuracy of the species list should be informally verified with our Service. No irreversible commitment of resources is to be made during the BA process which would foreclose reasonable and prudent alternatives to protect endangered species. Planning, design, and administrative actions may be taken; however, no construction may begin.

To complete the BA, your agency or its designee should: (1) conduct an on-site inspection of the area to be affected by the proposal which may include a detailed survey of the area to determine if the species is present and whether suitable habitat exists for either expanding the existing population or for potential reintroduction of the species; (2) review literature and scientific data to determine species distribution, habitat needs, and other biological requirements; (3) interview experts including those within FWS, National Marine Fisheries Service, State conservation departments, universities, and others who may have data not yet published in scientific literature; (4) review and analyze the effects of the proposal on the species in terms of individuals and populations, including consideration of cumulative effects of the proposal on the species and its habitat; (5) analyze alternative actions that may provide conservation measures and (6) prepare a report documenting the results, including a discussion of study methods used, any problems encountered, and other relevant information. The BA should conclude whether or not a listed species will be affected. Upon completion, the report should be forwarded to our Portland Office.

---

[1]A construction project (or other undertaking having similar physical impacts) which is a major Federal action significantly affecting the quality of the human environment as referred to in NEPA (42 U.S.C. 4332. (2)c). On projects other that construction, it is suggested that a biological evaluation similar to the biological assessment be undertaken to conserve species influenced by the Endangered Species Act.

Oregon
Theodore R. Kulongoski, Governor

Parks and Recreation Department
Heritage Conservation Division
725 Summer St. NE, Suite C
Salem, OR 97301-1271
(503) 986-0707
FAX (503) 986-0793
www.hcd.state.or.us

Mr. Ronald Eggers
Bureau of Reclamation PNW Region
825 NE Multnomah Ste 1110
Portland, OR 97232-2135

RE: SHPO Case No. 04-2598
Farmers Irrigation District Lower Distribution Pressurization
Tucker Rd, Hood River County

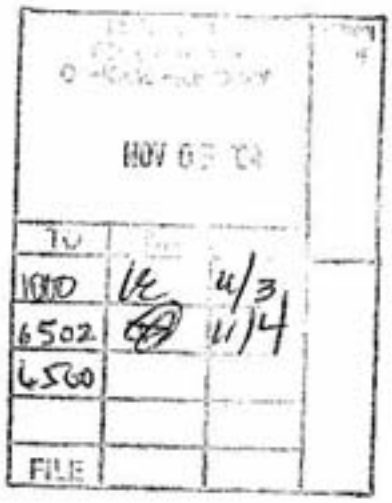
Dear Mr. Eggers:

I have recently received a request from your office to review the project reference above for any known cultural resources within this project area. Unfortunately, your request arrived without a complete legal description (e.g., township, range, and section) and detailed map (i.e., USGS map showing your project area in relation to the section(s) it lies within) that will allow me to pinpoint the exact location of the proposed project, which I can compare with our office's GIS database. Can you please send me a map of the project area (using a 7.5' USGS map) that clearly shows the proposed land development area in relation to the Township, Range and Section? Our GIS system is based on USGS maps and the small tax lot map included within the permit application is not useful for comparative purposes.

Upon receipt of a more detailed map, I will review your project application and get back to you in a timely manner.

Dennis Griffin

Dennis Griffin, Ph.D., RPA
SHPO Lead Archaeologist
(503) 986-0674
dennis.griffin@state.or.us



further involve you or your staff. You can direct questions or information to Ms. Lynne MacDonald, Regional Archeologist, Bureau of Reclamation, 1150 North Curtis Road, Suite 100, Boise, ID 83706-1234 or at 208-378-5316.

Thank you for your assistance.

Sincerely,

Ronald J. Eggers
Area Manager

Enclosures - 2

United States Department of the Interior

BUREAU OF RECLAMATION
1150 North Curtis Road, Suite 100
Boise, Idaho 83706-1234

IN REPLY REFER TO:
PN-6511
ENV-1.00

JAN 0 5 2005

Dr. Dennis Griffin
Heritage Conservation Division
State Historic Preservation Office
Oregon Parks and Recreation Department
725 Summer Street NE, Suite C
Salem, OR 97301-1271

Subject: Cultural Resource Investigations for Modifications to the Farmers Irrigation District (FID), Tucker Road Subsystem, Hood River County, Oregon

Dear Dr. Griffin:

As part of our Water 2025 Program, the Bureau of Reclamation is providing partial funding to the FID to aid in their conversion of a portion of their lateral subsystem from gravity flow to pressurized pipe. FID is a private irrigation district that serves approximately 5,800 acres of land near Hood River, Oregon. Water is delivered to their lands through a network of laterals supplied by three main canals, one of which is Farmers Ditch. Farmers Ditch diverts water from the Hood River about 10 miles above the city of that name, and serves lower elevation lands along the first terrace above the river through three subsystems of laterals. One of those is the Tucker Road subsystem; a map showing the current configuration of that subsystem is enclosed as Figure 1. The main stem and west branch of the Tucker Road subsystem is the area affected by the Federal undertaking; a map is enclosed (Figure 2) showing the planned modifications to those areas. There will be no modifications as part of this undertaking to Farmers Ditch itself, to the east branch of the Tucker Road subsystem, or to the other FID canals and lateral subsystems. With this letter we wish to open consultation pursuant to 36 CFR 800.5, as it pertains to investigations related to archeological resources. For your information, we are consulting separately with others at the Oregon State Historic Preservation Office concerning the historic significance of the Tucker Road lateral subsystem.

The FID has a long history, linking to early entrepreneurial agricultural development of the Hood River area. Briefly, between 1895 and 1897, Mr. J. Frank Davenport constructed an irrigation canal that is certainly the FID's Farmers Ditch. Little information is available describing the physical characteristics of Mr. Davenport's original system, other than that it consisted of a canal reported to be 11 miles in length, and the canal and associated laterals were open ditches with elevated flume sections. The next available data, presented in a 1929 report, indicates Farmers

Reclamation finds that the investigations completed by AHS are sufficient to determine that there is little or no potential that the undertaking will impact historic properties. As examination of Figure 2 will show, essentially all work will be confined to locations that have been very extensively disturbed by past ditch excavation and maintenance, by past installation of pipe, or by road construction. The damage caused by these actions would have destroyed any cultural deposits that might once have been present. Although there is a chance that relatively intact archeological deposits might be present beyond the survey corridor and outside of the damaged zone, the new construction activities will not extend to impact those more intact areas. The remaining areas shown on Figure 2 all have been disturbed at least in surface zones. These alignments cross orchards, a golf course, parking lots, and extensively landscaped areas.

We ask that you concur that Reclamation has made a reasonable and good faith effort to carry out appropriate efforts to identify historic properties within the area of potential effect, and that you concur with our finding that the undertaking has little or no potential to effect historic properties. Again, we are consulting separately concerning the historic significance of the irrigation system, and do not expect your concurrence to pertain to that resource.

If you have questions, please contact Ms. Lynne MacDonald by telephone at 208-378-5316 or by e-mail at lmacdonald@pn.usbr.gov. You can send your response to Ms. MacDonald at the address on the letterhead. Thank you for your assistance.

Sincerely,

/s/ MONTE McCLENDON

Monte McClendon
Manager, Ecosystems Analysis

Enclosures - 3

bc: PN-6403
LCA-1000
(w/o encls to each)

WBR:LMacDonald:kstinson:1/4/05:208-378-5316
M:/common/PN6500/Lynne/FIDSHPOarchy.ltr

Ditch was 8 miles long with18.75 miles of associated laterals. The laterals were indicated to be open ditches with sections in pipe. The reference to pipe sections would indicate that conversion of the open ditches to buried pipe was already in progress. Today essentially all laterals in the Tucker Road subsystem are in buried pipe (see Figure 1). FID Manager Mr. Jerry Bryan informed Reclamation that most of the pipe in use today was installed during the 1960's-1970's, and most likely was placed in the open lateral ditches or replaced pipe installed in the ditches at an earlier date.

In compliance with Section 106 of the National Historic Preservation Act, Reclamation has completed activities to determine if there are cultural resource sites within the potential impact area for the Tucker Road pipe conversion project. In August, 2004, we notified the Warm Springs Tribes of the proposed action and requested that they inform Reclamation if they are aware of archeological sites or traditionally important resources in the area. They were contacted again in association with National Environmental Policy Act public outreach efforts. We have yet to receive a response from the Warm Springs Tribes. In August we also contracted with Archaeological and Historic Services (AHS) for background research and archeological field investigations of the potential impact area. A copy of AHS's investigative report is enclosed detailing activities and outcomes. The report also includes photographs that show existing conditions at representative points along the alignments throughout the area of potential effect.

To briefly summarize data presented in AHS's report, as part of the background research, AHS contacted the Confederated Tribes of the Umatilla Reservation to learn if they were aware of resources in the area, and conducted a files search at your office and at the U.S. Forest Service office and other locations in the Hood River vicinity. These research efforts demonstrated that no archeological or historical sites or traditional cultural properties had been previously recorded or reported in or near the potential project impact area. AHS then completed a reconnaissance of the Tucker Road subsystem to assess existing ground conditions and define a survey approach. They found that essentially all of the alignments within the potential impact area for the undertaking were extensively disturbed by earlier ditch construction, pipe placement, or by road or other construction activities. The remaining areas were disturbed by agricultural use or landscaping. Although not affected by the undertaking, AHS extended their reconnaissance to the remainder (east branch) of the Tucker Road subsystem, and found generally similar conditions.

Following the reconnaissance, AHS completed a pedestrian survey of the entire alignment shown on Figure 2, except for the two short dashed red line areas where the existing pipe will be used without modification. Elsewhere, where either new pipe would replace existing pipe in the trench, where pipe would be laid in new alignments, and for most of the areas where pipe would be laid in open ditch, the survey spanned the anticipated impact area. At the widest area this was about 25 feet. However, in several places where pipe will be laid in the open lateral ditch, sediment had choked the ditch and caused water to spread over a wider area, creating swampy conditions (see Figure 16 in AHS's report for an illustration of this condition). There, survey occurred as close to the ditch as conditions would allow. No archeological sites were recorded during the survey. The only isolated materials found were recent trash. AHS's assessment was that survey conditions were at least minimally adequate to allow detection of surface-visible sites.

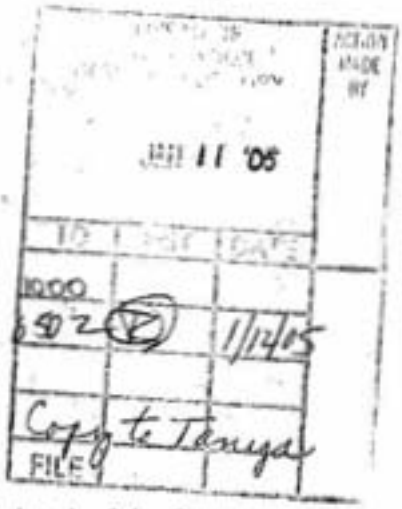
United States Department of the Interior

TAKE PRIDE IN AMERICA

BUREAU OF RECLAMATION
1150 North Curtis Road, Suite 100
Boise, Idaho 83706-1234

IN REPLY REFER TO:
PN-6311
ENV-1.00

JAN 04 2005



Ms. Sarah Jalving
Heritage Conservation Division
State Historic Preservation Office
Oregon Parks and Recreation Department
725 Summer Street NE, Suite C
Salem, OR 97301-1271

Subject: Eligibility to the National Register of Historic Places (National Register) of the Farmers Irrigation District (FID), Tucker Road Segment, Hood River County, Oregon

Dear Ms. Jalving:

As part of our Water 2025 Program, the Bureau of Reclamation is providing partial funding to the FID to aid in their conversion of the west branch of the Tucker Road segment of the FID system from gravity flow to pressurized pipe. Consistent with Section 106 of the National Historic Preservation Act, Reclamation is consulting with your office to determine whether the irrigation facilities that comprise the Tucker Road segment of the FID system are eligible to the National Register.

FID is a private irrigation district that serves approximately 5,800 acres of land near Hood River, Oregon. The FID service area encompasses about 40 percent of Hood River's 15,000 acres of orchard lands. These lands are served by a network of laterals supplied by three main canals, the Low Line Canal, the High Line Canal, and the Farmers Ditch. The Low and High Line Canals provide water to mid- and upper-elevation areas of the FID service area, and receive water from the Mt. Defiance watershed to the west and south of the FID's boundaries. These canals and their lateral subsystems are physically separate from the Farmers Ditch subsystems and are not affected by the undertaking. Farmers Ditch diverts water from the Hood River about 10 miles above the city of that name, and serves lower elevation lands along the first terrace above the river. Water is distributed to these lands through the Belmont/Avalon, Tucker Road, and Orchard Road subsystems of laterals. A map showing the route of the Farmers Ditch and the three associated delivery subsystems is enclosed (Figure 1). The west branch of the Tucker Road subsystem is the area affected by the Federal undertaking. There will be no modifications to Farmers Ditch or the Belmont/Avalon or Orchard Road subsystems as part of this undertaking.

Figure 2, enclosed, shows the current configuration of the Tucker Road lateral system. The Tucker Road subsystem diverts water from Farmers Ditch about 6 miles below the ditch headworks. At this date, essentially all of the Tucker Road lateral system is buried concrete pipe that operates by gravity flow. FID manager Mr. Jerry Bryan indicates that most of the pipe was installed during the 1960's-1970's.

The FID has a long history, linking to early entrepreneurial agricultural development of the Hood River area. An overview of the history of agricultural growth in the area and development of FID is provided in the enclosed report (see pages 8-12). Briefly, local history attributes establishment of the Farmers Irrigation Company to Mr. J. Frank Davenport, who settled with his family in the Hood River vicinity in 1890. Mr. Davenport was involved in logging and lumber milling, and expanded his interests into irrigation development in the 1890's. By that date, Hood River already had a successful commercial orchard industry, but needed a larger and more reliable water supply to maximize production. Between 1895 and 1897, Mr. Davenport constructed an irrigation canal that is certainly the FID's Farmers Ditch. Mr. Davenport encountered financial difficulties when building the ditch and it appears that the irrigation company was never sufficiently profitable to allow him to recoup his initial investment. It is not clear when the Farmers Irrigation Company became the Farmers Irrigation District, but it likely happened sometime after 1918, when Mr. Davenport is reported to have sold his company to a group of fruit growers.

The information available indicates that Mr. Davenport was important in the early historical development of the Hood River area. However, the available information is insufficient to allow an understanding of the actual impact of Mr. Davenport's system on the early orchard industry in the area.

Likewise, little information is available describing the physical characteristics of Mr. Davenport's original system, other than that it consisted of a canal reported to be 11 miles in length with the capacity to serve 10,000 acres. That capacity estimate is almost certainly very optimistic, given that the present system, augmented with other water sources, serves only slightly more than half that acreage. The canal was a combination of open ditch and elevated flume. A 1929 report indicates the Farmers Ditch was 8 miles long and 9 feet in width, and that there were 18.75 miles of laterals associated with the ditch. The report names a number of laterals, characterizing two of them as principal laterals. The laterals were indicated to be open ditches with sections in pipe, using wood, concrete, and steel piping materials. It's not possible now to correlate those named laterals with today's system, which instead uses numerical designators.

It is clear that modifications continued to be made to the system after 1929. The rather detailed description of Farmers Ditch provided in 1929 significantly deviates from present-day physical characteristics (see discussions in the enclosed report). Today essentially all laterals, both in the Tucker Road and other Farmers Ditch subsystems, are in buried pipe. As indicated above, most of the Tucker Road subsystem pipe dates from the 1960's-1970's. The same situation existed for the Belmont/Avalon and Orchard Road subsystems until in 2003-2004, when FID installed pressurized concrete pipe throughout those subsystems. Changes occurred elsewhere in the FID system as well. The High Line and Low Line Canals and their associated delivery systems have been constructed since 1929, and in the early 1990's FID constructed hydropower stations at three locations along the Farmers Ditch. All past modifications occurred without Reclamation's assistance.

After consideration of the information summarized above and presented in greater detail in the enclosed report, Reclamation has determined that the Tucker Road subsystem of the FID is not eligible to the National Register. This determination is primarily based upon lack of physical integrity of design and materials both within the Tucker Road element and throughout the Farmers Ditch unit of the FID. Although construction and initial operation of the Farmers Ditch unit is associated with a person who appears to have been important in historical development of the Hood River area, Reclamation does not find this sufficient to negate the poor physical integrity. We ask that you concur with the assessment that the Tucker Road subsystem is not eligible to the National Register.

If you have questions, please contact Ms. Lynne MacDonald at 208-378-5316 or by e-mail at lmacdonald@pn.usbr.gov. You can also send comments to Ms. MacDonald at the address on the letterhead. Thank you for your assistance.

Sincerely,

/s/ MONTE McCLENDON

Monte McClendon
Manager, Ecosystems Analysis

Enclosures – 3

bc: PN-6403
LCA-1000

WBR:LMacDonald:kstinson:1/4/05:208-378-5316
M:/common/PN6500/Lynne/FIDSHPO.ltr

Appendix B

Agency and Public Mailing List and Comments Received

FID EA
Mailing List

Dennie D. & Verna L. Martin
3770 Shull Drive
Hood River, Oregon 97031

Enriquez, Jose & Maria
1720 Tucker Rd
Hood River, Oregon 97031

Zeller, Richard L.
1874 Tucker Rd.
Hood River, Oregon 97031

Imai, Hitoshi
3801 Shull Drive
Hood River, Oregon 97031

Agustin & Teresa Garcia
1724 Tucker Rd
Hood River, Oregon 97031

Mary & Robert Morell
3860 Shull Drive
Hood River, Oregon 97031

Eugene & Susan Baskins
3765 Shull Drive
Hood River, Oregon 97031

Chris M. Johnsen
3860 Hays Drive
Hood River, Oregon 97031

David & Linda Campbell
3870 Shull Drive
Hood River, Oregon 97031

Russel S. & Myrtle M. White
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Hood River, Oregon 97031

Lowell E. & Linda A. Colton
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Sebastopol CA 95472

Jack D.& Betty Turner
3811 Shull Drive
Hood River, Oregon 97031

Timothy E. & Janell R. Wingerd
3833 Shull Drive
Hood River, Oregon 97031

Tsuneo & Misao Kino
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Hood River, Oregon 97031

Walter B.& Eleanor L. Braun
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Hood River School District
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Darlene Neufeldt
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Odell, Oregon 97044

Violet L Garret
3875 Hays Drive
Hood River, Oregon 97031

International Church of Foursq
3875 Barrett Dr
Hood River, Oregon 97031

James & Jan Brauer
3848 Barrett Dr
Hood River, Oregon 97031

Ronald T. & James David Stewart
3610 Central Vale Rd
Hood River, Oregon 97031

Charles H. & Irene R Johnisee
3847 Barrett Dr
Hood River, Oregon 97031

Donald & Kristi Buchanon
1765 Winston Rd.
Hood River, OR 97031

George & Jeanine Moser
3921 Barrett Dr
Hood River, OR 97031

Kent S. Nogowski
1686 Tucker Rd
Hood River, Oregon 97031

May Klantchnek
3925 Barrett Dr
Hood River, OR 97031

Bruce Alan & Constance Burton
1300 Indian Creed Rd
Hood River, Oregon 97031

C.W. Reggorah
1690 Tucker Rd
Hood River, Oregon 97031

Max T. Sigl
995 Multnomah Rd
Hood River, Oregon 97031

Steven & Judith Tr. Culbertson
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Hood River, Oregon 97031

Dykie A. & Quintina L. Dye
1704 Tucker Rd.
Hood River, Oregon 97031

Terry Brandt
1850 Country Club Rd
Hood River, OR 97031

Bob Level
1204 Tucker Rd
Hood River, OR 97031

Vernon Momberg
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Hood River, OR 97031

Julia Scherf
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Jack Sheppard
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Robert Tallman
1515 Jeanette Dr.
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Hood River, OR 97031

Masao Takasumi
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Charlotte Johnson
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Hood River, OR 97031

Secure Storage
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Hood River, OR 97031

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Verlin Belcher
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Hood River, OR 97031

Steve Alford
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Dennis Billings
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Gary Madsen
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Leighton Johnson
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Hood River, OR 97031

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Sherry Ervin
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Steven Zorza
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Hood River, OR 97031

Hood River Assembly of God
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Chris Davis
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Hood River, OR 97031

T.H. McGreer
3389 Cherry Dr
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George Bostwick
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David Smith
2965 Eliot Dr
Hood River, OR 97031

Aaron Wymore
3391 Bradley Dr
Hood River, OR 97031

Elgin Cornet
3113 Eliot Dr
Hood River, OR 97031

Gary Asbridge
2959 Eliot Dr
Hood River, OR 97031

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3409 Brookside Dr
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Geraldine Hobson
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2949 Eliot Dr
Hood River, OR 97031

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Ralph Hughes
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Kathleen Bolin
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Harold Blakesley
2933 Eliot Dr
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Mark Boyd
2923 Eliot Dr
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Oregon Dept. of Fish and Wildlife
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The Dalles, OR 97058

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Richard Eastman
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Confederated Tribes of the Warm Springs Reservation of Oregon
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Paksdale, OR 97041

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ODOT
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Troutdale Oregon 97060

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Board of Commissioner's Office
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Hood River, OR 97031

Rick Hinkley
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Hood River, OR 97031

Hood River County Public Works
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918 18th Street
Hood River, OR 97031

Bob Francis, City Manager
City of Hood River
301 Oak Street
Hood River, OR 97031

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Hood River, OR 97031

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Kemper Mc McMaster, State Supervisor
U.S. Fish and Wildlife Service
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Portland, Oregon 97232

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Attn: City Council
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Hood River, OR 97031

Holly Schroeder, Administrator
Oregon Dept. of Environmental Quality
811 S.W. Sixth Avenue
Portland, Oregon 97204

Ann Hanus, Director
Oregon Dept. of State Lands
775 Summer Street NE
Salem, Oregon 97301

Phil Ward, Acting Director
Oregon Water Resources Dept.
955 Center Street NE
Salem, OR 97301

Liquid assets relieve water tension

By CHRISTIAN KNIGHT - Hood River News staff writer - October 22

National **Bureau of Reclamation Commissioner John Keys** handed Farmers Irrigation District (FID) representatives a six-foot cardboard check for $300,000 Wednesday. Both agencies hope the federal grant will help relieve Hood River County's tense water supply that strains with every new resident, chair lift and winery.

The district, which supplies irrigation water to 1,367 people and 3,500 acres in Hood River County, will use the grant to convert some of Orchard Road's open canals to a couple miles of pipeline.

The Orchard Road canal conversion is one of three phases during which the FID will transform 9.5 miles of open canals and leaky irrigation pipes into pressurized, buried, eight to 10-inch pipe.

FID officials expect to finish the Orchard Road conversion, Phase III, some time this year. FID finished the Belmont-Avalon Roads, constituting Phase I last year. The district expects to finish the Tucker Road, Phase II, later this year or early next year.

All of this will cost the FID $6.5 million, which comes mostly from loans.

The conversion, says Farmers Irrigation District representative Jerry Bryan will conserve 1,500 to 3,500 acre-feet of water that would ordinarily be lost to leaks and evaporation.

"That's a contribution that means something to the Hood, where we are trying to do the right thing with endangered species," Bryan told a 20-member crowd during the acceptance ceremony at Farmers Irrigation District headquarters.

The award is part of a **Water 2025 Challenge Grant** program, that assists 19 areas throughout the West in water conservation efforts with $300,000 checks.
Bryan said the grant writing process was excruciatingly meticulous, but the **Bureau of Reclamation** was looking for two main attributes in a potential recipient: a need, and a pro-active, pro-environment approach toward water conservation.

Bureau spokesperson Diana Cross said Hood River's anticipated population boom, mixed with watershed issues, such as ski area expansion and new wineries, satisfied its first need to consider the area for the grant.
The FID's attempts to restore salmon habitat satisfied the second.

Keys helped launch the program in the summer of 2001, weeks after starting and in the heat of the war between the Klamath Falls farmers and the sucker fish.

"My boss (**Secretary of the Interior Gale Norton**) said, 'Where in the West do we have the potential for another shut off, like Klamath Falls?'" Keys said in his speech.

News Release **RECLAMATION**

Managing Water in the West

Pacific Northwest Regional Office
Boise, Idaho

Media Contact: Diana Cross (208) 378-5020 Jonne Hower (208) 378-5101
TTY/TDD: 711

For Release: October 20, 2004

Farmers Irrigation District Recognized With a *Water 2025* Grant Award

Bureau of Reclamation Commissioner John Keys recognized Farmers Irrigation District and the award of a *Water 2025 Challenge Grant* today at the Farmers Irrigation District office, in Hood River, Ore.

The $300,000 grant is from the U.S. Department of the Interior's *Water 2025* Challenge Grant Program. It will be used to fund one portion of Farmers Irrigation District's conversion of open canals and ditches to buried pipeline.

"This project, one of 19 selected by the Department of the Interior, will enable the District to complete the piping project, with a water savings of up to 40 percent," noted Commissioner Keys. "These grants support local, collaborative projects that will result in more efficient use of existing water supplies."

The grant will be used to install 2.5 miles of pipeline, replacing open canals and ditches, and will allow the District to complete their installation of a total 8.6 miles of pipeline. The project will allow between 1,500 and 3,500 acre-feet of water to remain in the Hood River during the critical summer months. One acre-foot is about 325,850 gallons, approximately the amount of water needed to supply a family of four with enough water for one year.

The *Water 2025* Challenge Grant Awards, administered by the Bureau of Reclamation, provide local irrigation districts throughout the West with matching funds to support a variety of projects to make more efficient use of existing water supplies through water conservation, efficiency and water market projects. The Challenge Grant program focuses on meeting the goals identified in *Water 2025*: Preventing Crises and Conflict in the West. In late June, Interior Secretary Gale Norton approved more than $4 million dollars in water conservation grants under the *Water 2025* Challenge Grant Program. President George W. Bush has requested $21 million for the initiative in Fiscal Year 2005.

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They found more than 30 areas in the West where the potential for conflicts over water usage ranged from mild, such as in Dallas or Wichita to "Highly Likely," such as along the Rio Grande, Salt Lake City and Napa Valley.

Hood River ranked in the "Substantial" category, the second-most serious, largely due to its position along the Columbia River.

http://www.hoodrivernews.com/News%20stories/085%20liquid%20assets.htm

United States Department of the Interior

BUREAU OF RECLAMATION
Pacific Northwest Region
Lower Columbia Area Office
825 NE Multnomah Street, Suite 1110
Portland, Oregon 97232-2135

IN REPLY
REFER TO:

LCA-6502

PRJ-1.10

OCT 19 2004

Subject: Comments Requested on the Farmers Irrigation District, Lower Distribution Pressurization Project, Phase II – Tucker Road

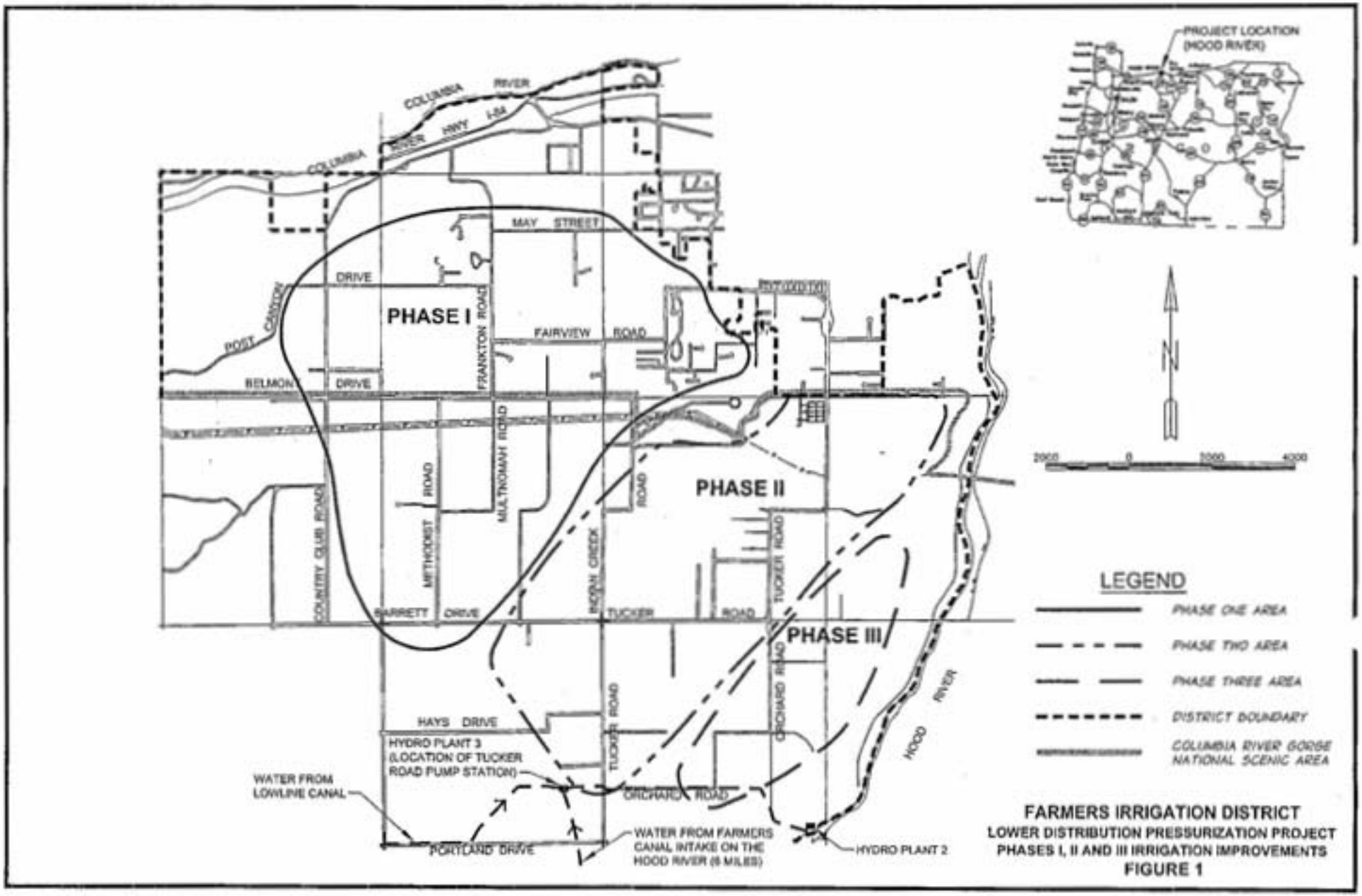
Ladies and Gentlemen:

The Farmers Irrigation District (District) is located in northern Hood River County, Oregon (Figure 1). The District has or is in the process of providing pressure pipelines to improve water conservation and irrigation efficiency. The project is divided into three phases (Figure 1) as follows:

- Phase I - Belmont-Avalon Roads
- Phase II - Tucker Road
- Phase III - Orchard Road

These projects represent the final third of the pressure pipe projects called for in the District's Water Conservation and Management Plan. Phase I was completed in 2003. Phase III will be completed during 2004. Phase II (the subject of this letter, Figure 2) is scheduled to be completed in late 2004 or 2005. The project would replace sections of unlined canal and/or existing pipelines or provide new pipelines with approximately 45,800 feet of pressurized pipeline. Water conserved through completion of this project would be returned to the lower 4 miles of the Hood River for improved instream flows during the summer irrigation season.

The Bureau of Reclamation (Reclamation) is proposing to contribute funding to implement Phase II of the project, utilizing authority and funding from the Energy and Water Development Appropriations Act, 2004, Public Law Number 108-137. Reclamation administers these funds through a competitive challenge cost share program known as the Water 2025 Program. The District successfully competed for Water 2025 cost-share funds for completion of Phase II of their pressurization project. Before Federal funds can be made available to the District, Reclamation must comply with the National Environmental Policy Act (NEPA). Reclamation will prepare an Environmental Assessment (EA) for the Phase II pipeline segments. The EA will address the social, economic, and environmental consequences of the proposed action and alternatives. Phase III is beyond the scope of this project.



FARMERS IRRIGATION DISTRICT
LOWER DISTRIBUTION PRESSURIZATION PROJECT
PHASES I, II AND III IRRIGATION IMPROVEMENTS
FIGURE 1

Reclamation is seeking your assistance in identifying potential social and environmental impacts and concerns that may result from the District's Phase II Pressurization Project. Your responses may also be used to identify existing information sources and to develop alternatives. Your written comments should be submitted by November 12, 2004 to the above address. If you have questions, please contact Tanya Sommer at 503-872-2846 or at tsommer@pn.usbr.gov.

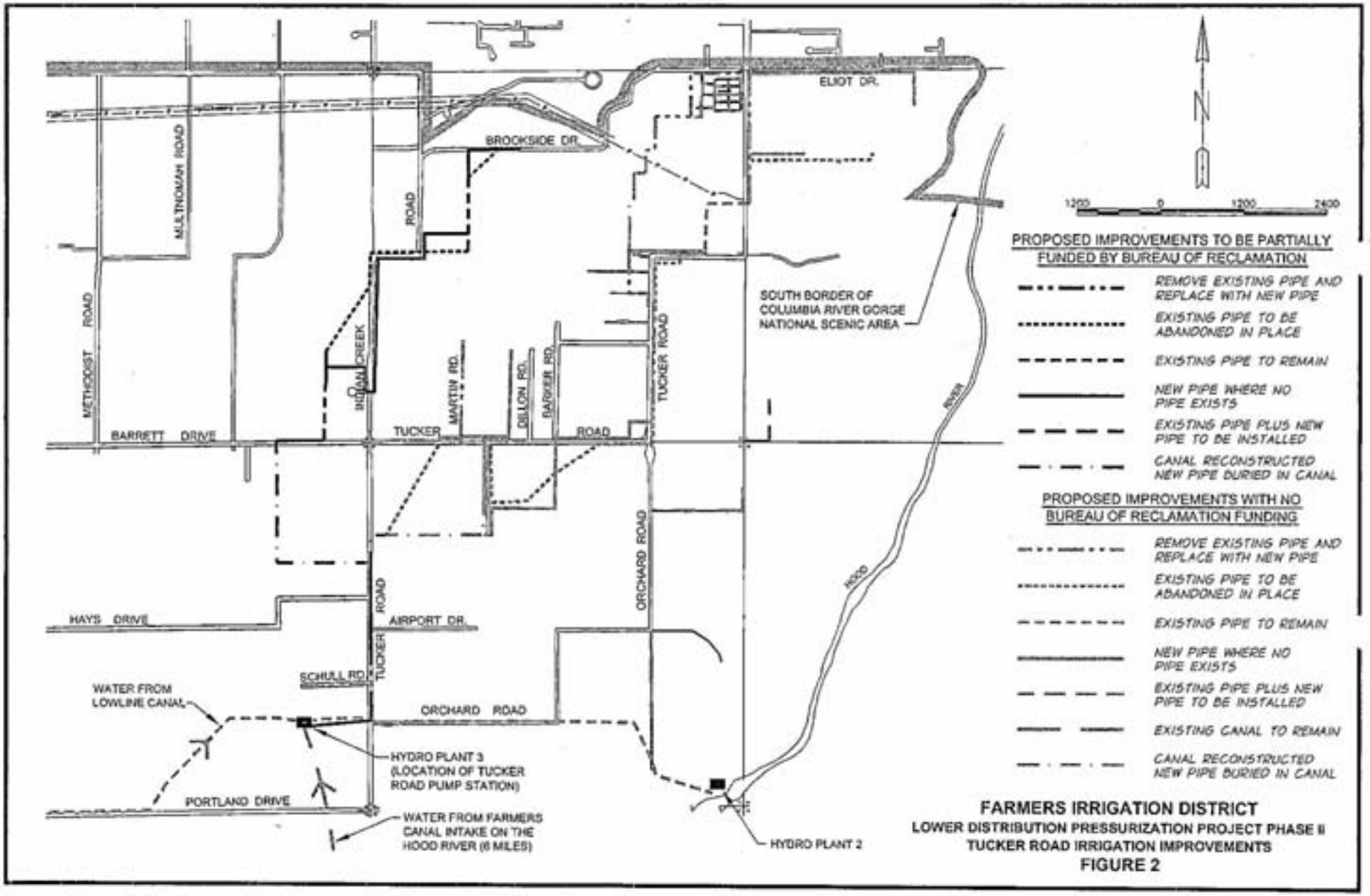
Sincerely,

/s/ DAVID R. NELSON

Ronald J. Eggers
Area Manager

Enclosures – 2

bc: LCA-6502, LCA-6500, BFO-3100, PN-6403

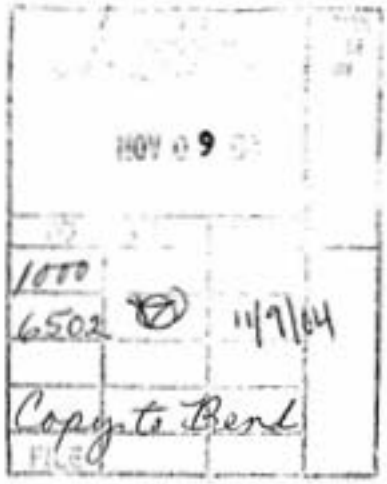


FARMERS IRRIGATION DISTRICT

LOWER DISTRIBUTION PRESSURIZATION PROJECT PHASE II

TUCKER ROAD IRRIGATION IMPROVEMENTS

FIGURE 2



560 Frankton Rd.
Hood River, OR 97031
November 7, 2004

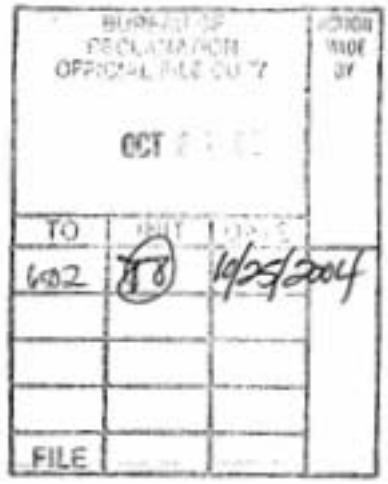
Ronald J. Eggers
Bureau of Reclamation
825 NE Multnomah St. Suite 1110
Portland, OR 97232-2135

Dear Ronald J. Eggers,
In response to your letter dated Oct. 19, 2004 RE: Hood River Farmer's Irrigation project, phase 2, I would like to go on record as being opposed to any pipe installation on my property other than in the existing north-south easement. I was contacted by Farmer's irrigation a couple of months ago and was asked if I would be agreeable to the idea of granting an easement and installing irrigation pipe along the east-west boundary of my property located at 1370 Tucker Rd. Since this property is zoned light industrial, I am allowed to build right up to the property line on the east-west axis, and I intend on doing so before long. I mentioned this in my discussion with the representative of Farmer's Irrigation (I forget his name), and I wanted to express myself in this regard to you as well.

Thank you for your solicitation for feedback, and I will be happy to talk to you about this if the need arises. I can be contacted at 541.386.5038

Respectfully yours,
Steve Alford

Dyke and Tina Dye
1704 Tucker Road
Hood River, OR 97031
541.386.6819



October 22, 2004

U.S. Dept. of the Interior
Bureau of Reclamation
Pacific NW Region
Lower Columbia Area Office
825 N.E. Multnomah St., Suite 1110
Portland, OR 97232-2135

RE: COMMENTS REQUESTED ON THE FARMERS IRRIGATION DISTRICT, LOWER DISTRIBUTION PRESSURIZATION PROJECT, PHASE II – TUCKER ROAD

Dear Bureau of Reclamation;

This letter is in response to your letter dated 10.19.2004 regarding the above.

We do not want our irrigation ditch buried after the new pipe is installed. We want the ditch left open through our property. This stretch of ditch consists of approximately 440'.

The historical reasons for this are due to:

1. We have a high water table in this area, and the extra water runs through this open ditch.
2. This open ditch carries off the extra winter water run-off and snow melt.
3. The property on the west side of the open ditch has an underground spring, which flows directly into the open ditch, rather than through our property.
4. Our house is approximately 20' to the east of this ditch; the open ditch helps keep the area around our house drier.

By leaving this ditch open it will keep our property drier, and the area around our house drier. We also have an out-building that is located within 3' of this ditch. The diversion of all the extra water in this area into this open ditch is a necessity. You can check with the County of Hood River for information on this area. It is a known "water problem area."

Please keep us informed as to the outcome of this request.

Sincerely,

Tina Dye

Tina Dye
Property owner and Farmers Irrigation rights owner