

June 1, 2021

RE: Farmers Irrigation District Infrastructure Modernization Project

Dear stakeholders,

Farmers Irrigation District (FID or the District) is seeking federal funding to modernize irrigation canals, laterals, and other infrastructure throughout the District. The purpose of this letter is to:

- Transmit the Scoping Document for this project;
- Advise you on the public comment period from June 1, 2021 to July 15, 2021; and
- Advise you on how to submit comments on the proposed project.

FID is seeking federal funding through the Natural Resources Conservation Service's (NRCS's) Watershed Protection and Flood Prevention Program, Public Law 83-566 (PL 83-566). This funding would be invested in improving District-owned infrastructure.

Federal investments through PL 83-566 need to comply with both the program's requirements and the National Environmental Policy Act (NEPA) process. Under the NEPA process, a federal agency independently evaluates the effects of a proposed project on social, cultural, and natural resources. NRCS is the lead federal agency managing the NEPA process for the FID Infrastructure Modernization Project.

Public scoping is the first step of the NEPA process. Under this step, NRCS releases a Scoping Document to resource agencies, interested stakeholders, and the public. The Scoping Document identifies the proposed project and framework for analyzing the resources that have the potential to be affected by the proposed project.

FID and NRCS will discuss the Scoping Document with resource agencies, interested parties, the Tribes, and the public during a virtual public scoping meeting to be held on June 16, 2021. The purpose of this meeting is to collect comments on the proposed project and any alternative actions that could also achieve the purpose and need for the project, as well as answer questions about the NEPA process. NRCS will use the comments gathered during public scoping to inform the next step in the NEPA process, which is the development of a Draft Watershed Plan-Environmental Assessment.

Agency and public comments in response to the issues discussed during the meeting, and/or resulting from a review of the Scoping Document are due July 15, 2021. Comments and questions can be emailed to: [farmers.id.comments@gmail.com](mailto:farmers.id.comments@gmail.com).

FID thanks you for your interest in our infrastructure modernization project and looks forward to your participation.

Sincerely,

Les Perkins, District Manager

# Scoping Document for the Farmers Irrigation District Infrastructure Modernization Project

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Prepared by Farmers Conservation Alliance

Submitted to Natural Resources Conservation Service

Spring 2021

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### Abbreviations

FID or the District	Farmers Irrigation District
BMP	Best Management Practice
CFR	Code of Federal Regulations
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service
PL 83-566	Watershed Protection and Flood Prevention Program, Public Law 83-566
Plan-EA	Watershed Plan-Environmental Assessment
PR&G	Guidance for Conducting Analysis Under the Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies and Federal Water and Resource Investments
SHPO	State Historic and Preservation Office
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service

## **1 Introduction**

Farmers Irrigation District (herein referred to as FID or the District) seeks federal funding through the Natural Resources Conservation Service's (NRCS) Watershed Protection and Flood Prevention Program, Public Law 83-566 (PL 83-566), authorized by Congress in 1954, to implement an irrigation infrastructure modernization project within Hood River County, Oregon.

FID's delivery system was developed throughout the late 1800s and early 1900s. Over the past 35 years, FID has worked continuously to improve District infrastructure. Currently, the District relies on eleven screened diversions, two reservoirs, a centralized pumping and filtration station, two tunnels, and one truss bridge to move water through 72 miles of District-operated pipelines and open canals, as well as natural conveyances. The District also operates two hydroelectric plants that generate Low Impact Hydropower Institute certified low-impact hydropower. Modernizing certain sections of FID's water distribution system would increase system efficiency and help address local water resource concerns.

The National Environmental Policy Act (NEPA) of 1969 and other applicable laws require a complete analysis of the environmental effects of the proposed project, as well as the consideration of additional alternatives. Following the scoping period, NRCS will prepare a Draft Watershed Plan-Environmental Assessment (Plan-EA).

The Draft Plan-EA will describe the proposed project in detail, look at alternatives to meet the purpose and need of the project, and analyze the potential effects of the project on cultural, social, and environmental resources in the vicinity. NRCS will release the Draft Plan-EA for public and agency comment upon completion.

## **2 Consultation and Participation**

### **2.1 Sponsors, Local Partners, Agencies, and Tribal Participation**

The scoping process is a collaboration between the District, NRCS, partners, agencies, tribes, and other stakeholders. It is intended to provide transparency, ownership, and cooperation towards a solution that meets the purpose and need for action (Section 3). There will be additional opportunities for input during the Watershed Planning Process and the development of the Draft Plan-EA.

Project sponsors are the parties involved in scheduling, facilitating communication, project design and development, and document writing. The lead sponsor for the project is FID. NRCS is the lead agency managing the NEPA process.

### **2.2 Permits and Compliance**

Project sponsors seek federal funding through PL 83-566. Therefore, the project will require an environmental assessment to comply with NEPA. Through the NEPA process, NRCS will identify how the project would comply with all relevant state and federal permitting and regulations, including Section 106 of the National Historic Preservation Act (managed by the State Historic and

Preservation Office [SHPO]), Section 7 of the Endangered Species Act (managed by the National Oceanic and Atmospheric Administration Fisheries and the U.S. Fish and Wildlife Service [USFWS]), and Sections 404 and 401 of the Clean Water Act (managed by Oregon Department of State Lands and the U.S. Army Corps of Engineers). Permits that are not received during the NEPA process would be received prior to beginning construction of the proposed project.

### **2.3 Mitigation**

Mitigation for environmental, historical, or other social effects will be considered and described in the Draft Plan-EA; consultation with appropriate agencies will be conducted to agree on the mitigation plans.

## **3 Purpose and Need for Action**

The purpose of the proposed project is to:

- Increase water conservation and improve water conveyance in District-owned infrastructure; and
- Improve District operation efficiency.

This project is needed to address water loss, water delivery reliability, and operation inefficiencies in District infrastructure. Current District operation inefficiencies include maintaining open canals, particularly those in remote locations, excessive wear on District infrastructure due to the high natural sediment load, and the inability to monitor and adjust diversions and operational spills in real time.

The District has piped most of its system; however, the remaining open canals lose water to seepage and evaporation. As a result, the canals must carry more water than is required for irrigation so that water reaches all the patrons throughout the District.

The District's open canals and pipelines do not transport and deliver water as precisely, accurately, or efficiently as a modernized system would. Seepage, lack of measurement devices and automation at turnout locations, and fluctuations in water demand make it much more challenging for the District to manage and deliver the amount of water that patrons need when they need it.

Another complicating factor for FID is the high natural sediment load in the irrigation water diverted from the Hood River. Sediment in irrigation water reduces the efficiency of irrigation systems on farms and District-owned pumps and hydroelectric facilities by creating excessive wear on pumps, filter systems, valves, and delivery nozzles. High sediment loads also result in poor irrigation water quality and present a maintenance challenge for FID and its patrons.

FID would like to implement infrastructure projects in support of both District operations and watershed sustainability goals. The following opportunities could be realized through the implementation of the project:

- Improve irrigation water management and delivery to FID patrons by improving conveyance efficiencies
- Improve water supply reliability for FID patrons
- Improve streamflow and enhance water quality and aquatic habitat in the Hood River and its tributaries
- Reduce the operations and maintenance involved in delivering irrigation water to FID patrons
- Minimize the potential for injury, loss of life, and property damage associated with the open FID canals

## 4 Scope of the Environmental Assessment

NRCS and FID are conducting public scoping as a part of the project's NEPA review. Public scoping seeks to identify issues of economic, environmental, cultural, and social importance that have the potential to be affected by the proposed project.

Following the scoping process, a Plan-EA would be drafted to determine if the proposed project meets NEPA requirements<sup>1</sup> as well as program and environmental review requirements specific to NRCS's federal investments in water resources projects.<sup>2</sup>

## 5 Affected Environment - Existing Conditions

### 5.1 Project Location and Project Area

The District serves 1,932 accounts across 5,888 irrigated acres in Hood River County. The project area is where the FID Infrastructure Modernization Project would occur and consists of District infrastructure that would be modernized (i.e., upgraded or improved), areas where new infrastructure would be built, and associated rights-of-way and/or easements where construction would take place and/or be staged.

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<sup>1</sup> NEPA requirements include the Council on Environmental Quality regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500–1508); the U.S. Department of Agriculture's (USDA) NEPA regulations (7 CFR Part 650); NRCS Title 190 General Manual Part 410; and the NRCS National Environmental Compliance Handbook Title 190 Part 610 (May 2016).

<sup>2</sup> NRCS requirements and guidelines are provided in the 2015 NRCS National Watershed Program Manual (NRCS 2015) and the 2014 NRCS National Watershed Program Handbook (NRCS 2014). Additional requirements are found in the 2013 Principles and Requirements for Federal Investments in Water Resources (NRCS 2013) and Interagency Guidelines and Agency Specific Procedures established in Departmental Manual 9500-013. These documents comprise the Guidance for Conducting Analysis Under the Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies and Federal Water and Resource Investments (PR&G; USDA 2017). The PR&G revised and replaced the 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. The PR&G constitutes the comprehensive policy and guidance for federal investments in water resources.

### **5.1.1 Current Infrastructure and Water Rights**

FID operates more than 72 miles of pipelines and open canals, two hydroelectric plants, and two reservoirs (Figure 5-1). The District has water rights to the Hood River, tributaries to the West Fork Hood River, springs, and stored water for supplemental irrigation from Upper and Lower Greenpoint reservoirs. FID's primary water sources are the mainstem of the Hood River, Dead Point Creek, Ditch Creek, North Fork Green Point Creek, and Gate Creek.

The District conveys water through three primary pipelines and one canal, with a series of smaller pipelines branching off of them (Figure 5-1). This network of irrigation infrastructure generally moves water from the southwest to the northeast. Over the past 35 years the District has piped 96 percent of their system.

FID's two reservoirs provide supplemental irrigation water to part of the District. FID also operates two hydroelectric plants, which include two forebays<sup>3</sup> that serve to control waterflow. The District has eliminated nearly all system end spills. The majority of patron service points are either metered or limited with flow restrictors.

### **5.1.2 Climate and Topography**

Average annual precipitation in the District is 31 inches. The average high temperature for July is 81 degrees Fahrenheit and average low temperature for January is 28 degrees Fahrenheit. The irrigation season for the District is April 15 through September 30. Irrigated lands are at elevations ranging from 180 to 2,250 feet (FID 2020).

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<sup>3</sup> A forebay is a pond immediately above a hydroelectric plant.

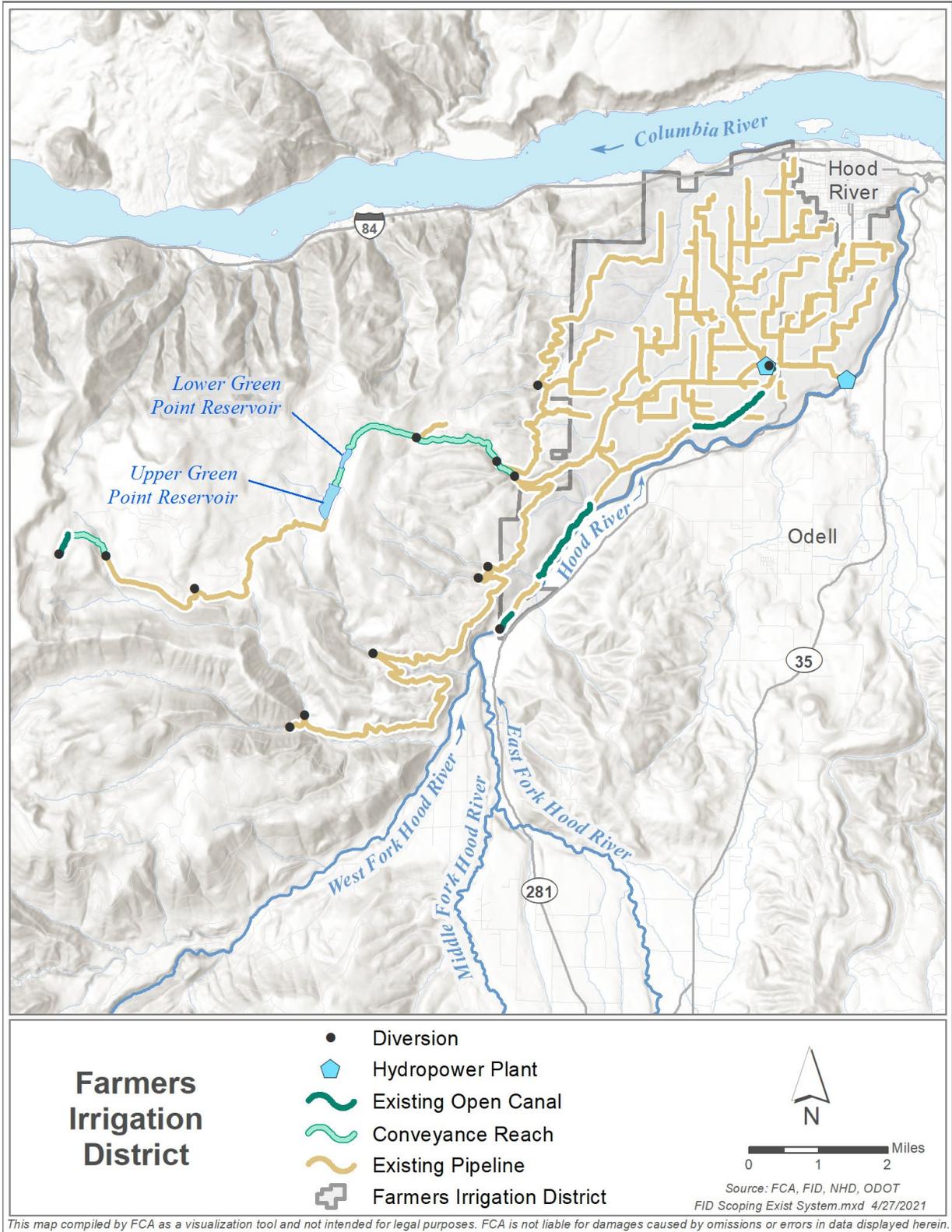


Figure 5-1. Farmers Irrigation District current infrastructure.

## 5.2 Resource Issues, Project-Related Effects, and Proposed Measures

Table 5-1 provides an overview of the resource issues identified to date and FID’s proposed measures to avoid adverse environmental effects during the construction and operation of its proposed infrastructure modernization project.

**Table 5-1. Overview of Currently Identified Resource Issues, Proposed Analysis, and Mitigation Measures to be Included in the Draft Watershed Plan-Environmental Assessment.**

Resource	Resource Issues to be Analyzed	Proposed Analysis and Mitigation Measures
Geology and Soils	Effects from erosion of exposed and disturbed soils (both surface and backfill) on soil resources and proximate surface waters	Review NRCS and other available soil survey and geology maps. Develop and implement an Erosion and Sediment Control Plan. Incorporate best management practices (BMPs) during and post construction.
Cultural Resources	Effects of construction and operation of the proposed project on historic resources that are, or may be eligible, for inclusion in the National Register of Historic Places	Survey the project area and consult with SHPO prior to project construction. Develop and implement a Historic Properties Management Plan to provide a formal framework for the future treatment of all known historic properties within the area of potential effects that are eligible to be listed on the National Register of Historic Places.
	Effects of construction of the proposed project on archeological resources	Analyze previous archeological reports and potential effects and consult with SHPO prior to project construction. Develop and implement an Unanticipated Discoveries Plan.
Vegetation	Potential for noxious weed distribution during and post construction	Incorporate noxious weed suppression BMPs during construction.
	Potential for impact to sensitive and/or rare plant species	Review state and federal listings specific to the project area. Determine measures based on species presence.
Fish	General Fish	Communicate with USFWS and Oregon Department of Fish and Wildlife and review available literature. No measures proposed at this time.

Resource	Resource Issues to be Analyzed	Proposed Analysis and Mitigation Measures
	Threatened and Endangered Species	Review state and federal listings specific to the project area and region. Determine measures based on species presence.
Wildlife	Effects on General Wildlife	Review available literature and communicate with USFWS and the Oregon Department of Fish and Wildlife. Incorporate BMPs during construction.
	Effects of the project on Threatened and Endangered Species	Review state and federal listings specific to the project area. Determine measures based on species presence.
	Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act	Review state and federal listings specific to the project area and communicate with USFWS. If there is the potential to effect Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act species through vegetation clearing or construction activities, follow seasonal restrictions and incorporate BMPs during construction.
Surface Water	Effects of increased turbidity during project construction due to exposed and disturbed soils	Develop and implement an Erosion and Sediment Control Plan. Incorporate BMPs during construction.
Groundwater	Effects of removing potential groundwater source	Review literature and interview local experts. No measures proposed at this time.
Wetlands, Riparian Areas, and Floodplains	Impacts to wetlands	Review the National Wetlands Inventory Database and available literature. If jurisdictional wetlands are identified, consult with the U.S. Army Corps of Engineers and the Oregon Department of State Lands. No measures proposed at this time.
	Impacts to floodplains	Present the proposed project to the Hood River County Flood Administrator to determine effects; measures would be determined.
	Impacts to riparian areas	Review available literature and interview local experts. No measures proposed at this time.

Resource	Resource Issues to be Analyzed	Proposed Analysis and Mitigation Measures
Land Use and Recreation	Effects of project construction, operation, and maintenance on agricultural, residential, and other land uses near the project	Review spatial and zoning data and available literature. No measures proposed at this time.
	Effects of project construction, operation, and maintenance, including dust and noise, on recreational resources near the project	Review spatial data to determine presence of trails and parks with the potential to be affected. No measures proposed at this time.
Environmental Justice	Effects of project construction and implementation on minority, low income, tribal, or indigenous community.	Review socioeconomic data and spatial data. No measures proposed at this time.
Socioeconomic Resources	Effects of project construction, operation, and maintenance on the local economy in Hood River County.	Prepare a National Economic Efficiency and a Regional Impact Analysis as required by NRCS to determine the effect of the alternatives on the region’s economy.
	Effects of project construction and completion on property values in the project area.	Review available literature. No measures proposed at this time.
Public Health and Safety	Danger of drowning in canals and flood damage to properties below open canals	Review of available literature. No measures proposed at this time.

## 6 Alternatives

### 6.1 Formulation Process

To determine the most viable alternatives to meet the project’s purpose and need, NRCS and FID are considering the needs of the water users, goals for conservation and restoration, resources, funding available for both the District and the water users, and the status of the District’s previous improvements.

### 6.2 Description of Alternatives Considered

During the scoping process, the following Alternatives will be analyzed to determine if they should be studied in detail or eliminated from further study. They will be evaluated based on the criteria in USDA (2017) and NRCS (2015). Pursuant to this guidance, alternatives that become “unreasonable due to cost, logistics, existing technology, social, or environmental reasons,” do not achieve the

Federal Objective and Guiding Principles or are unable to address the purpose and need for action may be removed from consideration.

#### **6.2.1.1 No Action Alternative (Future without Project)**

Under the No Action Alternative, the District would continue to operate and maintain the existing canals, pipelines, and hydroelectric system in its current condition. This alternative assumes that modernization of the District's infrastructure would not be reasonably certain to occur, as funding at the large scale necessary to modernize the District's remaining infrastructure is not anticipated from other sources. The No Action Alternative is a continuation of the District's standard operations and maintenance.

#### **6.2.1.2 Piping Modernization Alternatives 1 and 2**

Two Piping Modernization Alternatives are being considered. Under both Piping Modernization Alternatives, existing open canals would be converted to buried pipelines to improve water conservation and operation efficiency. Additionally, under both Piping Modernization Alternatives the District would pursue other modernization actions including: installing supervisory control and data acquisition (SCADA) telemetry sites to ensure that more accurate volumes of water are delivered throughout the system, upgrading a forebay to reduce operational spills, and upgrading existing pipelines and other infrastructure to improve water conveyance.

In addition to the potential modernization actions listed above, under Piping Modernization Alternative 1, a sedimentation basin (also referred to as a settling pond) would be installed to address sediment issues that cause operation inefficiencies (see Section 3). Installing a settling pond below FID's Davenport Diversion on the mainstem of the Hood River would reduce the irrigation water's velocity to allow for suspended sediment to fall out of suspension before it enters the District's distribution system.

In addition to the potential modernization actions listed above in the first paragraph, under Piping Modernization Alternative 2, a wetland would be created below the Davenport Diversion that would allow sediments to settle as the water passes through the wetland. This would address sediment issues that cause operation inefficiencies. This would be a non-structural alternative, as defined by the USDA (2017).

#### **6.2.1.3 Canal Lining Modernization Alternatives**

Two Canal Lining Modernization Alternatives are being considered. Under both Canal Lining Modernization Alternatives, the bottom and sides of the currently open canals would be lined with a geotextile liner and shotcrete to prevent water from seeping into the underlying soils and rock.

Similar to the Piping Modernization Alternatives, under both Canal Lining Modernization Alternatives the District would pursue other modernization actions including: installing SCADA telemetry sites to ensure that more accurate volumes of water are delivered throughout the system, upgrading a forebay to reduce operational spills, and upgrading existing pipelines and other infrastructure to improve water conveyance.

In addition to the modernization actions listed above, to address operation inefficiencies caused by sedimentation, Canal Lining Modernization Alternative 1 would include installation of a sedimentation basin (discussed above in Piping Modernization Alternative 1).

Canal Lining Modernization Alternative 2 would include installation of a wetland (discussed above in Piping Modernization Alternative 2). Canal Lining Modernization Alternative 2 would be a non-structural alternative, as defined by the USDA (2017).

### **6.3 Economics**

A National Economic Efficiency (NEE) analysis will be completed for the project during the Plan-EA process. The NEE is an economic analysis that evaluates costs and benefits associated with the proposed project and is required to be included in the Plan-EA under the PR&G.

## 7 References

Farmers Irrigation District (FID). 2020. *Water Management and Conservation Plan*.

U.S. Department of Agriculture (USDA). 2017. *Guidance for Conducting Analysis Under the Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies and Federal Water and Resource Investments (DM 9500-013)*. Washington, DC: USDA.

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