

May 4, 2023

RE: Santiam Water Control District Infrastructure Modernization Project

Dear Stakeholders,

Santiam Water Control District (SWCD or the District) 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 to modernize irrigation canals, and other infrastructure throughout the District. As a part of this effort, we are starting public scoping regarding a potential project and its associated resources. The purpose of this letter is to:

- Transmit the Scoping Document for this project
- Advise you about the public comment period from May 4 to June 22, 2023
- Advise you on how to submit comments on the proposed project.

Federal investments through PL 83-566 need to comply with both the program's requirements as outlined in the Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies (PR&G) and the National Environmental Policy Act (NEPA) process. NRCS is the lead federal agency managing the NEPA process for the Santiam Water Control District Irrigation Modernization Project.

Public scoping is the first step in the NEPA process and is required under PL 83-566. Under this step, NRCS releases a Scoping Document to resource agencies, interested stakeholders, and the public to inform them of the need for NEPA and PR&G analysis, and to learn of any information or concerns relevant to the analysis. The Scoping Document identifies the proposed project and framework for analyzing resources that have the potential to be affected by the proposed project.

The District and NRCS will discuss the Scoping Document during an in-person public scoping meeting to be held on May 31, 2023. The purpose of this meeting is to answer questions about the NEPA process and collect comments on the proposed project and alternative actions that could achieve the project purpose and need. NRCS will use the comments gathered during public scoping to inform the next step in the NEPA and PL 83-566 program process, which is the development of a draft Watershed Plan-Environmental Assessment.

Comments related to the issues discussed during the meeting and/or review of the Scoping Document are due June 22, 2023. Comments and questions can be emailed to: [santiam.wcd.comments@gmail.com](mailto:santiam.wcd.comments@gmail.com), mailed to Farmers Conservation Alliance/ 102 State Street/ Hood River, OR 97031, or left as a voice message at (541) 716-6085. The District thanks you for your interest in the infrastructure modernization project and looks forward to your participation.

Sincerely,

Brent Stevenson, District Manager

# Scoping Document for the Santiam Water Control District Infrastructure Modernization Project

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Prepared by Farmers Conservation Alliance on behalf of the Natural Resources Conservation Service

May 2023

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### Abbreviations

°C	degrees Celsius
BMP	Best Management Practice
CFR	Code of Federal Regulations
EA	Environmental Assessment
gpm	gallons per minute
NEE	National Economic Efficiency
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODSL	Oregon Department of State Lands
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
SWCD or the District	Santiam Water Control District
SHPO	State Historic Preservation Office
THPO	Tribal Historic Preservation Office
TMDLs	Total Maximum Daily Loads

USACE	United State Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service

## 1 Introduction

Santiam Water Control District (herein referred to as SWCD 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 Marion County, Oregon.

SWCD serves approximately 17,700 acres of land for 450 patrons within the District's boundary through roughly 105.6 miles of open canal and 4.2 miles of piped conveyance (Figure 1). The District does not own or operate any reservoirs but does utilize storage in Detroit Reservoir. The District operates one main point of diversion at Stayton Power Canal and a secondary diversion at Salem Ditch, which is consolidated with Stayton Ditch for the purposes of measurement and reporting. Salem Ditch diverts natural flow from the North Santiam River (N. Santiam River), which is discharged into Mill Creek as a result of an inter-basin transfer. The Coates Lateral and Meadowlawn Laterals then redivert the N. Santiam River water from Mill Creek.

Within the North Santiam and Middle Willamette Sub-basins, where the proposed project is located, the Oregon Department of Environmental Quality (ODEQ) has identified multiple water quality challenges. Both sub-basins were included in Oregon's 303(d) list for not meeting state water quality standards for mercury, Mill Creek and McKinney Creek were listed for not meeting state water quality standards for bacteria, and Marion Creek, Mill Creek, and the N. Santiam River were listed for not meeting state water quality standards for temperature (EPA 2021, ODEQ 2006). SWCD has been listed as the responsible party for both the Mercury and Temperature Total Maximum Daily Loads (TMDLs). Furthermore, sporadic runoff events from fields, ditches, and storm drains in the fall, winter, and spring can produce high concentrations of fecal coliform bacteria and biochemical oxygen demand in the N. Santiam River (E&S Environmental Chemistry 2002). Although infrequent, these events contribute to nutrient loading, which progressively increases downstream.

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. The Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies and Federal Water Resource Investments (PR&G) require additional analyses, such as an economic analysis and inclusion of effects to ecosystem services, in order to meet the requirements of the program. As the lead federal agency, NRCS will be meeting

requirements of both NEPA<sup>1</sup> and the PR&G<sup>2</sup> simultaneously throughout the Watershed Planning process. This scoping document and the associated scoping meeting meet NEPA and PR&G requirements for public participation. The scoping process is part of a systematic approach to obtain input from stakeholders about the project and to ensure that significant decision-making factors are addressed. The scoping process helps to ensure that the level of analysis for the proposed project is appropriate, and it helps to anticipate whether an Environmental Assessment (EA) or Environmental Impact Statement with more extensive analysis for more significant impacts should be prepared. At this time, NRCS anticipates that a Draft Watershed Plan-EA (Plan-EA) would be prepared following scoping.

The Draft Plan-EA will describe the proposed project in detail; look at alternatives to meet the purpose and need for the project; analyze the potential effects of the project on cultural, social, and environmental resources in the project area and vicinity; and analyze the potential costs and benefits of the proposed project. 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 SWCD. NRCS is the lead agency managing the NEPA.

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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; NRCS 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.

## 2.2 Permits and Compliance

The project sponsor seeks federal funding through PL 83-566. Therefore, the project will require an EA 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 Marine Fisheries Service and the U.S. Fish and Wildlife Service [USFWS]), and Sections 404 and 401 of the Clean Water Act (managed in Oregon by Oregon Department of State Lands [ODSL], ODEQ, and the U.S. Army Corps of Engineers [USACE]). 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 when potential effects to these resources have been identified; and consultation with appropriate agencies will be conducted to agree on any mitigation plans.

## 3 Purpose and Need for Action

The purpose of the irrigation district modernization project is to improve Agricultural Water Management<sup>3,4</sup> through modernizing and improving the existing irrigation system to enhance its sustainability and efficiency. The project aims to address operational inefficiencies, improve water management, and promote sustainable practices that will benefit farmers, the agricultural industry, and the environment.

The existing irrigation system is outdated and inefficient, resulting in water loss, stormwater overloading, reduced crop yields, and increased costs for farmers. The condition of the aging system also results in a high operations and maintenance load for the District, particularly related to the inability of the current system to handle stormwater and drainage water needs. Additionally, there are concerns about meeting future regulatory compliance requirements related to water quality and ecological needs, which may result in escalating costs for the district and its patrons. To address these concerns, there is a need for action to modernize the irrigation district infrastructure and ensure compliance with regulatory requirements.

The project will involve upgrades to the irrigation system, such as modernizing canals, improving system alignments, and reducing spills by improving water management technology. These upgrades will enhance the efficiency of the irrigation system and District operations, reduce water loss, and improve water delivery and supply reliability, which will benefit farmers and the agricultural industry.

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<sup>3</sup> A description of Authorized Purposes can be found in 390-NWPM, Part 500, Subpart A, Section 500.3B.

<sup>4</sup> To meet NRCS requirements for a federal investment in a water resources project, the project must meet the Federal Objective set forth in the Water Resources Development Act of 2007 and be an authorized project purpose under Sections 3 and 4 of Public Law 83-566.



In addition, the project will also help meet current regulatory requirements related to water quality and ecological needs, separating stormwater inputs from irrigation water delivery will reduce the potential for environmental harm and protect the ecological integrity of natural watercourses. By promoting sustainable practices that reduce the potential for environmental harm, the project will support the long-term sustainability of the agricultural industry and ensure the availability of clean water for irrigation.

SWCD would like to implement infrastructure modernization projects in support of 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 District patrons by improving conveyance efficiencies
- Improve water supply reliability for District patrons
- Improve water quality and aquatic habitat in Mill Creek, Marion Creek, McKinney Creek, and the N. Santiam River
- Reduce the operations and maintenance involved in delivering irrigation water to District patrons
- Minimize the potential for injury, loss of life, and property damage associated with open canals
- Improve system capacity and management for stormwater runoff and drainage water

## **4 Scope of the Environmental Assessment**

NRCS and SWCD are conducting public scoping as a part of the project's NEPA and PR&G requirements to comply with the requirements of PL-566. 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 and PR&G requirements.

## **5 Affected Environment - Existing Conditions**

### **5.1 Project Location and Project Area**

The project is located in Marion County. The project area is the area where the SWCD Infrastructure Modernization Project would occur. It 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 (Figure 1 and 2).

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

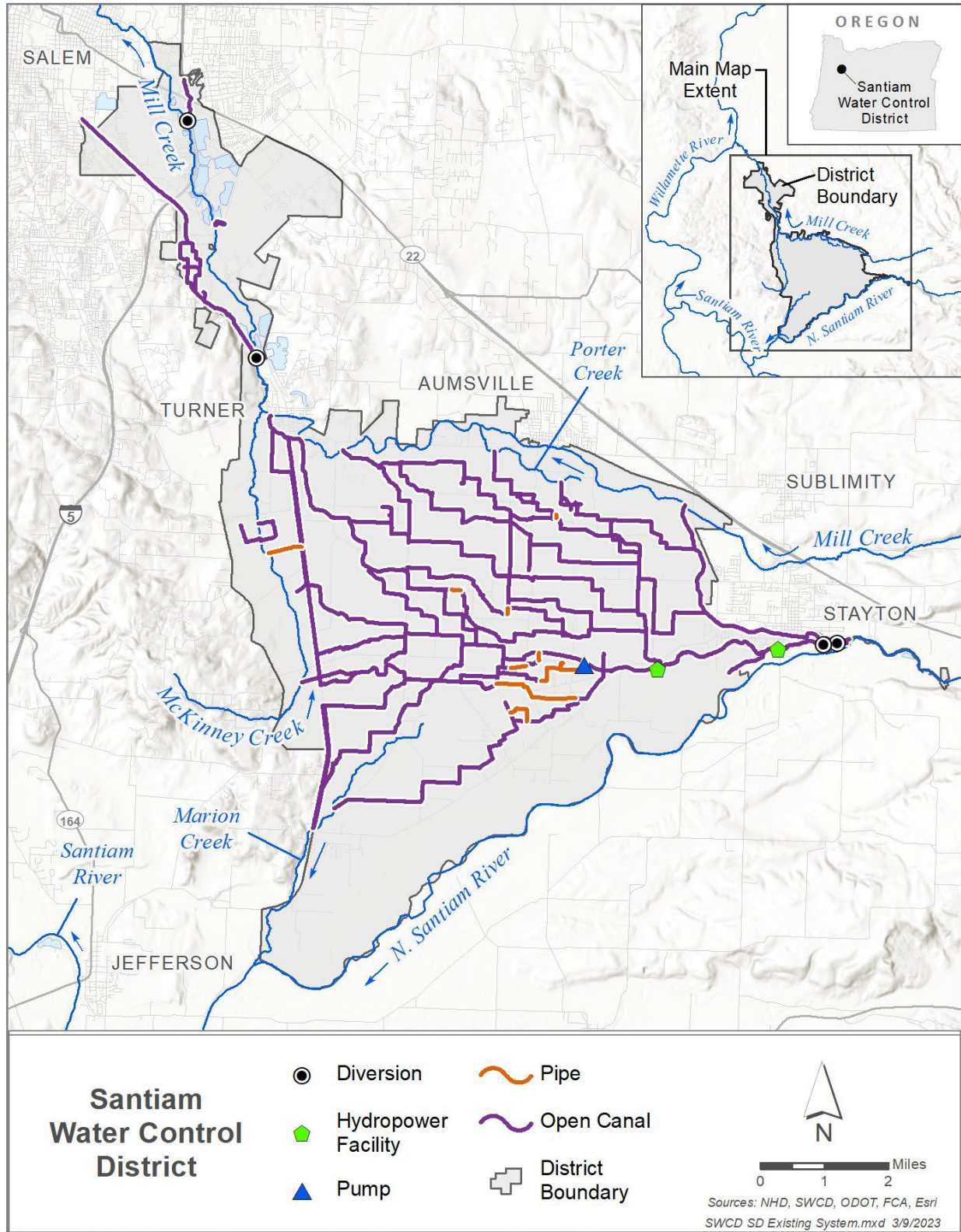
SWCD delivers water to approximately 17,700 acres of agricultural land within the District's boundary through roughly 105.6 miles of open canal and 4.2 miles of piped conveyance (Figure 1).

Santiam Water Control District currently diverts water for 52 water rights certificates from the N. Santiam River. The District delivers these flows via a combination of District infrastructure and natural conveyances including Marion Creek, McKinney Creek, and Mill Creek. These water rights are held by a myriad of users including SWCD, individual irrigators, companies, and municipalities. Beneficial uses for live flows include irrigation, power generation, municipal supply, manufacturing, and aesthetics. Together with these groups, SWCD's water rights certificates and permits provide irrigation water for approximately 16,391 acres with district primary surface water rights. In addition, the District has a primary stored water right of 579.87 acres and supplemental right of 398.42 acres to divert Detroit Reservoir stored water conveyed via the N. Santiam River, with a maximum of 1,997.59 acre feet of storage in Detroit Reservoir.

Several certificates served by the District limit the diversion of irrigation water to 1/80 cfs or 5.6 gallons per minute (gpm) per acre. Some water rights for irrigation are further limited to a maximum of between 2.5 and 3.5 acre feet per acre in each season. Existing District pipelines are designed to deliver a rate of 5.6 gpm per acre to patrons. Instream water rights protect year-round flow in the N. Santiam River. These instream rights are junior to most irrigation rights in the basin, with a priority date of June 22, 1964.

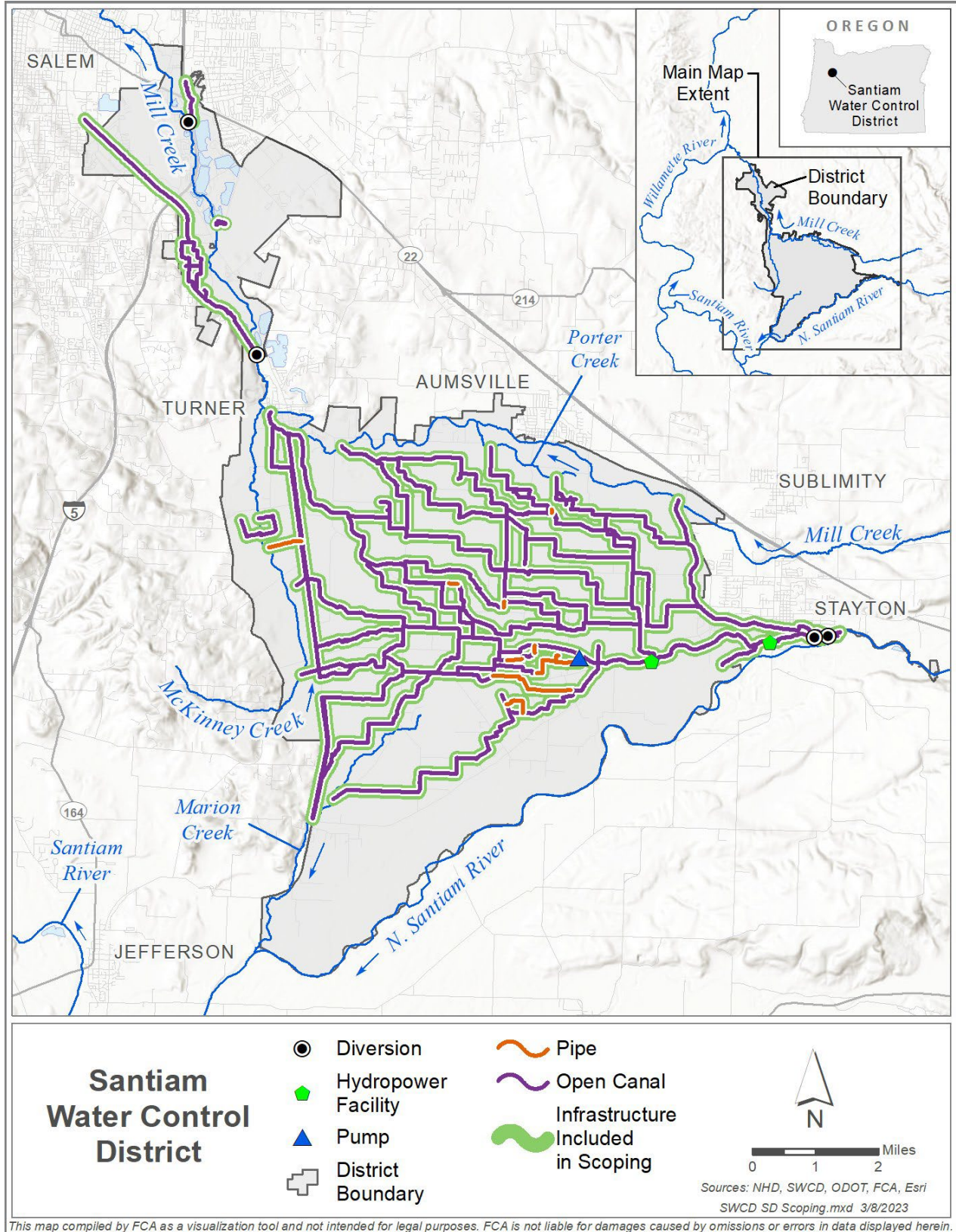
### **5.1.2 Climate and Topography**

SWCD is located partially within the N. Santiam Watershed and partially in the Middle Willamette Watershed at an elevation of approximately 400 feet above mean sea level. The region is characterized by flat alluvial lowlands, with steeper forested uplands stretching northeast of the District, eventually reaching the western slopes of the Cascade Range. Snowpack from the western Cascades feeds the N. Santiam River, which flows west into the Willamette valley, filling the Detroit Reservoir before it reaches the District boundary (David Evans and Associates Inc. & GSI Water Solutions, Inc. 2017). The climate is characterized by an extended period of cool temperatures and heavy precipitation in the winter months, and hotter temperatures and low precipitation levels in the summer months (E&S Environmental Chemistry, Inc. 2002). Mean annual precipitation in the region is approximately 45 inches per year at lower elevations and falls predominantly as rain year-round (E&S Environmental Chemistry, Inc. 2002). The mean annual temperature in the basin ranges from 4°C (January) and 20°C (July) (E&S Environmental Chemistry, Inc. 2002).



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Figure 1. Santiam Water Control District current infrastructure.



**Figure 2. Santiam Water Control District infrastructure considered in scoping.**

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

Table 1 provides an overview of the resources and issues identified to date that would potentially be affected by the project. It also provides an overview of SWCD’s proposed measures to avoid adverse environmental effects during the construction and operation of its proposed infrastructure modernization project.

**Table 1. Overview of Currently Identified Resource Issues, Proposed Analyses, 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, and effects to Prime and Unique farmlands as a result of construction	Review NRCS and other available soil survey and geology maps. Develop and implement an Erosion and Sediment Control Plan. Incorporate best management practices (BMP) during and post construction.
Cultural Resources	Effects of project construction and operation 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 and the Tribal Historic Preservation Office (THPO) 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 project construction and operation on archeological resources	Analyze previous archeological reports and potential effects and consult with the Confederated Tribes of Grande Ronde, the Confederated Tribes of Warm Springs, SHPO, and THPO 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 Best Management Practices (BMPs) during and post construction.

Resource	Resource Issues to be Analyzed	Proposed Analysis and Mitigation Measures
	Effects of project construction and operation on sensitive and/or rare plant species	Review state and federal listings specific to the project area. Determine measures based on species presence. If necessary, consult with USFWS and U.S. Forest Service during the planning phase.
Fish	Effects of project construction and operation on general fish species	The sponsors understand that fish screens may be a requirement in certain areas of the project (e.g. related to the Coates Diversion from Mill Creek) in order to prevent fish and aquatic species from entering SWCD's delivery system. Consultation with USFWS and Oregon Department of Fish and Wildlife (ODFW) would occur during the planning phase.
	Effects of project construction and operation on Threatened and Endangered Species	Review state and federal listings specific to the project area and region. Determine measures based on species presence. If necessary, consult with USFWS during planning.
Wildlife	Effects of project construction and operation on general wildlife	Review available literature and communicate with USFWS and ODFW. Incorporate BMPs during construction.
	Effects of project construction and operation on Threatened and Endangered Species	Review state and federal listings specific to the project area. Determine measures based on species presence. If necessary, consult with USFWS and ODFW during the planning phase.
	Effects of project construction and operation on birds protected under the 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 affect 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.

<b>Resource</b>	<b>Resource Issues to be Analyzed</b>	<b>Proposed Analysis and Mitigation Measures</b>
Groundwater	Effects of project construction and operation on groundwater near the project area	Review literature and consult with local experts. Measures would be determined.
Wetlands, Riparian Areas, and Floodplains	Effects of project construction and operation on wetlands near the project area	Review the National Wetlands Inventory Database and available literature. If wetlands are identified, consult with the USACE and ODSL. No measures proposed at this time.
	Effects of project construction and operation on floodplains in the project area	Present the proposed project to the Marion County Planning Department to determine effects; measures would be determined.
	Effects of project construction and operation on riparian areas in the project area	Review available literature and consult with local experts. If necessary, consult with USFWS and ODFW during the planning phase. No measures proposed at this time.
Land Use and Recreation	Effects of project construction, operation, and maintenance on agricultural, residential, and other land uses near the project area	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 area	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 operation 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 Marion County	Prepare a National Economic Efficiency (NEE) and a Regional Impact Analysis as required by NRCS to determine the effects of the alternatives on the region's economy.

Resource	Resource Issues to be Analyzed	Proposed Analysis and Mitigation Measures
	Effects of project construction and completion on property values in the project area	Review available literature. No measures proposed at this time.
Ecosystem Services <sup>1</sup>	Potential effects on provisional, cultural, and regulating ecosystem services	Review available literature. No measures proposed at this time.
Economic Benefits and Costs <sup>1</sup>	Analyze the economic costs and benefits of the project	Prepare NEE.

Notes:

1. These resources are not required under NEPA, they are required to be analyzed under the PR&Gs.

## 6 Alternatives

### 6.1 Formulation Process

To determine the most effective alternatives to meet the project’s purpose and need, NRCS and SWCD 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 No Action Alternative (Future without Project)

Under the No Action Alternative, the District would continue to operate and maintain the existing delivery 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 their infrastructure is not anticipated from other sources. The No Action Alternative would be a continuation of the District’s standard operations and maintenance.



## 6.2.2 Infrastructure Modernization Alternatives

The District is working with engineers to design infrastructure that is technically feasible and addresses the project's purpose and need. Potential infrastructure improvement actions being considered under these modernization alternatives include: converting sections of existing open conveyances to buried pipelines; installing new pump stations; shifting points of diversion; consolidating sections of the current system; and installing new conveyance alignments. See Figure 2 for District infrastructure considered for modernization.

### Majority District Alternative

Under the majority district alternative, all canals within the District, except the Salem Ditch, would be modernized, either through piping, lining, or an alternative modernization pathway. Under this alternative, realignment of infrastructure would be considered.

### Priority Area Alternative

Under the priority area alternative, only select areas of irrigation infrastructure would be identified for modernization, either through piping, canal lining, realignment, or decommissioning portions of the system. Priority areas may be selected according to factors such as water loss, cost, the number of patrons affected, or stormwater and drainage impacts by the City of Stayton or District lands. Locations of priority areas being considered (Figure 3) include (but are not limited to):

- Upper Main Canal: The Upper Main Canal is an integral part of the District's distribution system. Located at the very top of the system, the Upper Main Canal is used to convey water from SWCD diversions to the majority of the laterals and ditches throughout the District. Under the priority area alternative, the Upper Main Canal between the Power/Stayton Diversion and the Collier Lateral headgate would be piped or lined.
- Collier Lateral to Mill Creek: The Collier Lateral delivers water from the Main Canal to the north, connecting with the Porter Main Canal and Mix Sublateral to deliver water to patrons just south of Mill Creek. Currently, patrons served off of Mill Creek receive water via the Salem Ditch, which also delivers an aesthetic water right and receives stormwater from the City of Stayton.

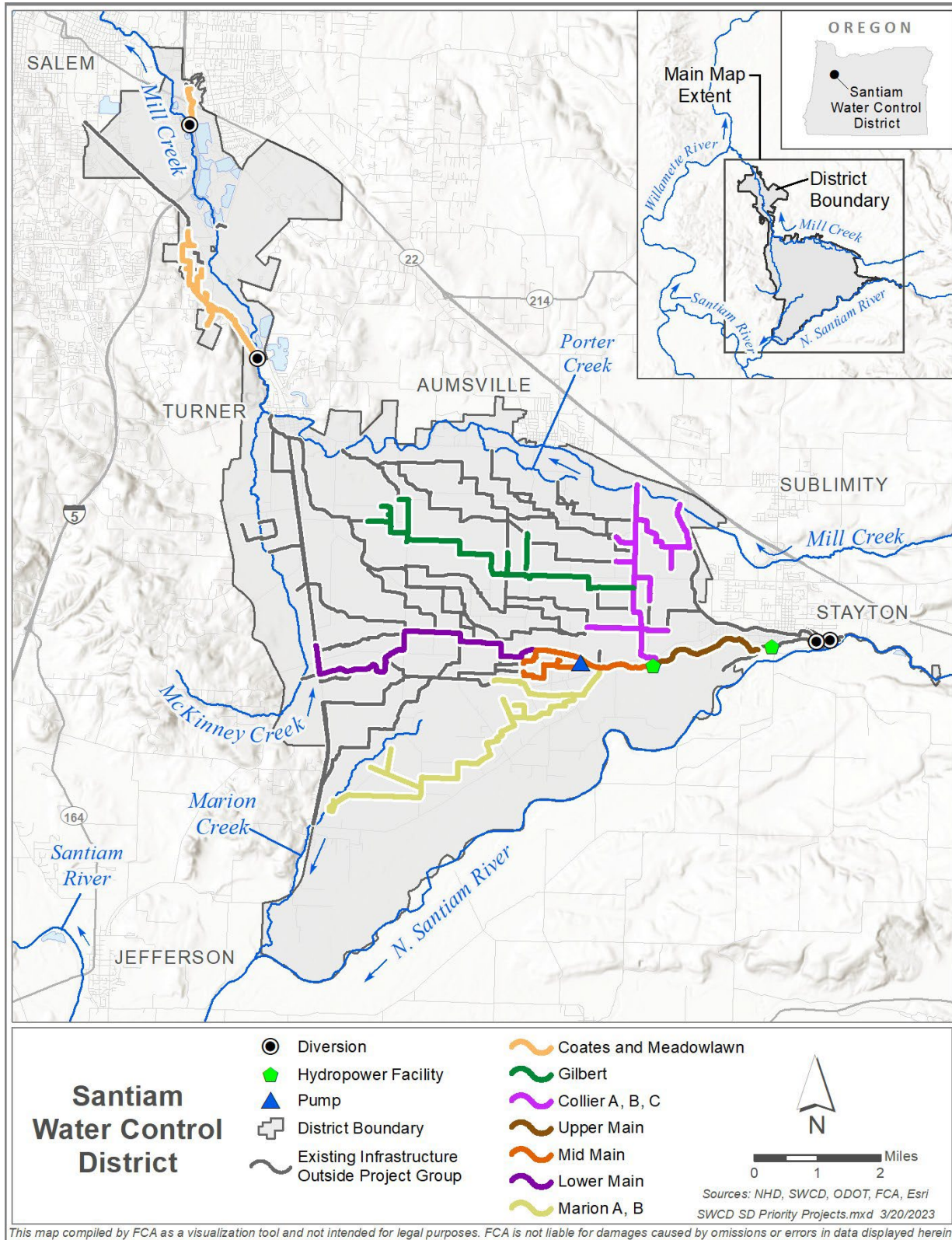
Under the priority area alternative, the District is considering a combination of lining or piping within the existing alignment and lining or piping within a new alignment that would constitute a new conveyance that serves as an artery for the northern part of the District. Lining or piping would begin at the headgate to the existing Collier Lateral from the Main Canal and extend north in a combination of existing and new alignments until it connects with Mill Creek. In an effort by the District to separate irrigation deliveries reliant upon Salem Ditch for conveyance, water supplying the Butler-1, Butler, and Mix Ditches would be diverted at the Power/Stayton Diversion and be delivered by the new conveyance. In addition, a new lined or piped conveyance would be installed adjacent to the current Salem Ditch from the outlet of Mix Ditch north to Mill Creek. The

separation would eliminate the co-mingling of stormwater and irrigation water, improving water quality provided to farmers, while also reducing regulatory burden.

- Middle Main Canal: The Middle Main Canal stretches from the Collier lateral headgate to the Rishel Lateral, delivering water to the Marion Ditch in the process. Several existing pipelines are also served by this section of the Main Canal. These pipelines are aging and in need of replacement. Under the priority area alternative, this section of the Main Canal would be piped or lined, and a portion of the Wallace Pipeline would be replaced to reduce required operations and maintenance and water losses.
- Marion Ditch: The Marion Ditch delivers water from the Main Canal to the southwestern part of the District, eventually ending at Marion Creek. Approximately 10 percent of water deliveries are lost to seepage and evaporation in Marion Ditch. Modernizing this conveyance is listed as a priority in the District's Drought Contingency Plan (GSI & David Evans and Associates 2017).

Under the priority area alternative, Marion Ditch would be piped or lined and the existing Marion pipeline would be replaced. The aging Dozler pipeline, a sublateral off of Marion Ditch, would also be replaced.

- Gilbert Lateral: The Gilbert Lateral receives water from the west-running portion of the Collier Lateral and delivers water to the western part of the District. Under the priority area alternative, the Collier Lateral would be lined or piped in a combination of a new and the existing alignment from the intersection with the Porter Main Canal to the intersection with the Gilbert Lateral. The Gilbert Lateral would then be lined or piped in its existing alignment.
- Lower Main Canal: The Lower Main Canal delivers water from the Rishel Lateral to the westernmost area of SWCD's system. This section of the Main Canal experiences the highest rates of water loss to seepage and evaporation in the District. Under the priority area alternative, the Lower Main Canal would be lined or piped in its existing alignment.
- Coates and Meadowlawn Laterals: The Coates and Meadowlawn laterals deliver water from Mill Creek to the northernmost area of the District. The Coates Lateral was identified as a high priority for modernization in the North Santiam Drought Contingency Plan for the purpose of reducing water loss. Over 16 percent of deliveries off of the Coates Lateral are lost to seepage and evaporation (GSI & David Evans and Associates 2017). Under the priority area alternative, approximately three miles of the northern portion of the Coates Lateral would be decommissioned and the rest lined or piped in its existing alignment. The Meadowlawn lateral would be lined or piped. There is also potential to install several pump stations to maintain necessary pressures to make deliveries throughout this portion of the system and serve lands that have requested transfer water.



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**Figure 3. Potential Areas of Focus.**

A 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&Gs.

## 7 References

- David Evans and Associates Inc. & GSI Water Solutions, Inc. (2017). *North Santiam Watershed Drought Contingency Plan*. [http://northsantiam.org/wp-content/uploads/NorthSantiamDCP\\_FINAL\\_forBOR\\_July25\\_2017.pdf](http://northsantiam.org/wp-content/uploads/NorthSantiamDCP_FINAL_forBOR_July25_2017.pdf)
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