

# North Santiam Watershed Management Program

**Santiam Water Control District, on behalf of the  
North Santiam Watershed Stakeholders**

Brent Stevenson, Project Manager  
284 East Water Street  
Stayton, OR 97383  
503-769-266

# Table of Contents

Technical Proposal and Evaluation Criteria .....	3
Executive Summary .....	3
Background Data .....	4
Project Location .....	9
Technical Project Description.....	9
Applicant Category .....	9
Eligibility of Applicant .....	11
Goals .....	11
Approach.....	12
Evaluation Criteria .....	13
Evaluation Criterion A—Watershed Group Diversity and Geographic Scope .....	13
Evaluation Criterion B—Addressing Critical Watershed Needs.....	17
Evaluation Criterion C—Implementation and Results .....	20
Evaluation Criterion D—Nexus to Department of the Interior Initiatives .....	21
D.2.2.5 Environmental and Cultural Resources Compliance .....	21
D.2.2.6.....	21
Budget Proposal .....	21
<b>Budget Narrative</b> .....	23
Contractual .....	23
Indirect Costs .....	25
Total Costs .....	25

# Technical Proposal and Evaluation Criteria

## Executive Summary

The following is the pertinent information regarding the Applicant:

Date of Application: Jan. 31, 2018

Name of Applicant: Santiam Water Control District, on behalf of the North Santiam Watershed Stakeholders

City/County/State: Stayton, Marion County, Oregon

### **Address and Contact Information:**

SANTIAM WATER CONTROL DISTRICT  
284 East Water Street  
Stayton, OR 97383

ATTN: Brent Stevenson, District Manager

Telephone: 503-769-2669 / Fax: 503-769-5995

Email: brents.swcd@wvi.com

The proposed project will establish a unified and cohesive approach to building resiliency in the North Santiam Watershed (NSW) by developing trust and fostering effective collaboration across a diverse group of stakeholders. To date, the North Santiam Watershed Stakeholders (NSW Stakeholders) have made significant strides in planning for and protecting the watershed, and have successfully coordinated water management efforts, but as groups mature and align there is opportunity for greater cross-sector planning and collaboration. Unfortunately, there are some stakeholder groups that have either been reluctant or not had the time to participate, and as a result have stated they do not feel their interests are fully represented by current efforts underway. As part of the process of aligning and broadening the stakeholder base, the NSW Stakeholders want to do the following:

- 1) Integrate existing watershed planning efforts
- 2) Continue to build trust across the watershed, and increase stakeholder participation and engagement in watershed management
- 3) Develop a shared understanding of watershed challenges and interdependency among all stakeholders.

Grant funds will be used to hire a qualified consultant to facilitate communications and outreach to stakeholders, and identify and seek opportunities to increase diversity and commitment of stakeholder engagement; to align, integrate, and complete planning projects and facilitate implementation and coordination of watershed planning efforts conducted to date (including the

North Santiam Drought Contingency Plan and the Partners of the North Santiam Watershed Resiliency Action Plan); and to identify any gaps or missing components to existing administrative frameworks and action plans that should be addressed. The ultimate outcome of this work will be a leadership group that represents all stakeholders in the watershed and works together to conserve, protect, and restore our shared water resources. The proposed project helps accomplish the goals of the Cooperative Watershed Management Program (CWMP) by developing a more purposeful, cross-disciplinary, collaborative, and inclusive approach to watershed management within the NSW.

*Project Timeline:* The proposed project will last two years, with an estimated completion date of June 30, 2020.

*Location on a Federal Facility:* Approximately 75 percent of the land within the NSW is publically owned and managed by federal and state agencies (primarily U.S. Forest Service (USFS), Bureau of Land Management (BLM), Oregon Department of Forestry (ODF), and U.S. Army Corps of Engineers (USACE). The vast majority of publically owned lands in the watershed are federally owned, primarily by the USFS and BLM. The Willamette Basin Project: Detroit Lake Contracts #140510W0675 and #140510W1118 are Reclamation projects located within the geographical area that will be addressed in the proposed project.

## Background Data

The NSW is a fourth-field watershed within the Willamette Basin. It covers approximately 766 square miles (approximately 500,000 acres) on the western slopes of the Cascade Mountains extending to the Willamette Valley floor, and includes the small subbasin that drains a 12-mile reach of the mainstem Santiam River downstream of the confluence with the South Santiam River. Together, the North Santiam River and the mainstem Santiam River are approximately 100 miles long and enter the Willamette River at River Mile 108. The NSW is characterized by steep forested uplands and flat alluvial lowlands.

The following complex mix of features and regulations intersect in the watershed:

- Drinking water source to the City of Salem and Albany and 8 small communities within the watershed (Idanha, Detroit, Breitenbush, Gates, Lyons Mehama, Stayton, Jefferson)
- Willamette National Forest
- Federally designated Detroit Lake
- Detroit and Big Cliff Dams
- Marion Forks Hatchery
- Stayton Complex Dams and Diversions
- Wild and Scenic waterway on the Little North Santiam
- Essential Salmonid Habitat
- Federally established Opal Creek and Mt. Jefferson Wilderness
- Forest Practices Act and Northwest Forest Plan
- USACE Willamette Project Biological Opinion
- ESA listed plants- e.g. Bradshaw's Lomatium, Oregon Larkspur, White-topped Aster and Willamette Valley Daisy
- ESA listed animals- e.g. Spotted Owl, spring Chinook salmon and winter Steelhead
- DEQ's Three Basin Rule
- 303 (d) list of water quality impaired water bodies and TMDL Plan
- Minimum Perennial Stream Flows (OWRD) 2008 BiOp Flow Objectives (NOAA)
- ODFW's Conservation Strategy
- Natural Heritage Resource Area that is also a Bird Conservation Area
- U.S. Bureau of Reclamation (USBOR): holds water right certificates for stored water in Detroit Reservoir for irrigation purposes
- U.S. Army Corps of Engineers (USACE): Owns and operates Detroit and Big Cliff Reservoirs

*Water Uses and Source of Supply.* Land and water uses in the NSW are diverse, and include municipal, irrigation, recreation, power generation, and habitat for fish and wildlife.

The largest water appropriations in the NSW are for municipal use (34 percent) and irrigation use (44 percent), excluding power rights. The North Santiam River serves as a drinking water source to 18 communities, which have an approximate combined population of 204,352, through surface and groundwater sources. (NSWC 2014). The two largest urban water users are the Cities of Salem and Albany, both of which are outside of the watershed boundaries.

The Santiam Water Control District (SWCD) uses a combination of live flow from the North Santiam River and stored water from the Detroit Lake Reservoir system. SWCD's surface water diversions enter a network of 114 miles of earthen ditches. SWCD's normal diversion rates total 53,000 AF for the irrigation of 17,000 acres and 236,000 AF for hydropower generation.

There are two major dams in the NSW: Detroit and Big Cliff, which provide flood control, storage, generate hydropower, and provide recreation at Detroit Lake. The Detroit and Big Cliff Dams were constructed on the North Santiam River in 1953. The Detroit Dam is 450 feet high and has a maximum conservation pool of 436,000 acre feet (AF). Detroit Dam is a concrete gravity structure with a gated spillway containing six spill bays and four regulating outlets. The powerhouse has two generating units that produce a total of 100 megawatts of power. The Big

Cliff Dam is used to smooth out the power generation water releases from Detroit Dam and to control downstream fluctuations in river level. The volumes held in the reservoir pool are only available for irrigation.

Oregon Water Resource Department (OWRD) holds several instream water rights in the NSW for the protection of fisheries, aquatic life, and pollution abatement; however, these instream water rights are junior to most other water rights (NSWC 2014). OWRD has also adopted minimum perennial stream flows in the NSW below the dams to support aquatic life and minimize pollution, and established restrictions on new surface water appropriation to maintain these minimum perennial stream flows. There are three minimum perennial streamflows in the North Santiam River and one in the Little North Santiam River with 1964 priority dates. To date, these minimum perennial stream flows have not been converted into water right certificates. Uncertainty surrounding the conversion of these minimum perennial streamflows creates vulnerability for water right holders in the NSW that use “live flow” and have priority dates junior to the minimum perennial streamflows.

*Major Water Rights.* While the U.S. Army Corps of Engineers (USACE) is the owner and operator of the Willamette Project Reservoirs, Reclamation is the federal agency responsible for providing services to irrigators, and is the holder of several water rights to store water for irrigation in the Willamette Project reservoirs, including Detroit Reservoir. Reclamation holds the water rights on behalf of the federal government and issues contracts to provide the stored water for irrigation purposes. The storage of water in the reservoirs and the use of the stored water must, under state law, be authorized by OWRD. This water right application process resulted in OWRD issuing water right certificates to the US Bureau of Reclamation (BOR or Reclamation) for the entire 1.64 million AF of storage for irrigation use only. Consequently, OWRD currently cannot issue water rights for this stored water for any purposes other than irrigation. To date contracts totaling only 12,269 AF have been issued.

The Portland District of the USACE and OWRD are jointly sponsoring the Willamette River Basin Review Feasibility Study to determine if and how space in the reservoirs can be reallocated during the spring and summer to provide stored water for municipal and industrial water supply, irrigation, and fish and wildlife uses. Because national policy prohibits the USACE from holding state water rights, Reclamation has held two Oregon water storage rights on behalf of the federal government for all Willamette Valley Project (WVP) conservation storage since construction of the WVP was completed.

The City of Salem holds 7 surface water rights and 25 groundwater rights for its municipal system. Salem holds five water right certificates for the use of up to 239 cubic feet per second (cfs) from the North Santiam River for municipal use. In addition, Salem holds a limited license authorizing the use of water for its aquifer storage and recharge (ASR) system.

*Water Issues.* There are many water issues affecting the NSW:

**Climate and Weather Patterns:** Water availability continues to rise to the top of the list of concerns in the watershed. Despite a promising winter in 2016-2017, the NSW faces ongoing moderate drought conditions and is currently experiencing above-normal temperatures through

the winter months of 2017-2018, which has resulted in a low snowpack and increased drought concerns for the summer.

**Regulations and Management:** In addition to climate and weather patterns, water availability in the NSW is affected the USACE's management of Detroit Reservoir, the 2008 Willamette River Biological Opinion issued by National Marine Fisheries Service (NMFS), and the various water users in the Basin. The USACE manages releases from Detroit Lake, primarily for flood control, according to federally mandated regulations. USACE coordinates its releases from Detroit Reservoir with NMFS in order to comply with the 2008 BiOp and to provide water for fish use and wildlife use. The BiOp also restricts USBOR from issuing additional contracts for stored water for irrigation in the Santiam Basin—the only watershed to be restricted in this way as a result of the BiOp. As a result, most stakeholders have little control over the amount of water available downstream of Detroit Lake, which would worsen significantly in drought conditions. This lack of control over releases and water availability creates significant uncertainty, and makes it difficult for most stakeholders to plan. Because of this, the SWCD, the NSWC, and other partners developed a Drought Contingency Plan, funded by a grant from Reclamation, to build community awareness, cooperation, and planning before a crisis occurs.

Recent developments in the management of the Willamette Project Reservoirs, including Detroit Reservoir, have contributed to the vulnerability of the watershed. The USACE is currently considering a plan to drain Detroit Lake for a period of one to two years to build a tower and floating screen to improve fish passage at Detroit Dam. This project could have significant impacts on water users in the region, potentially leading to water quality issues and shortages, and would likely interrupt the local economy, which depends heavily on agriculture and recreational activities.

**Water Quality Vulnerabilities:** In December 2017, the NSW faced water-quality concerns when a semi-tanker crashed on Highway 22 near Idanha, spilling 11,600 gallons of unleaded gasoline into the North Santiam River, and forcing the City of Salem to switch to backup groundwater and reservoir supplies. Although the effects of this tragic accident appear to be temporary, it was a stark reminder of the vulnerability of our watershed to disaster.

Wildfire is yet another threat to water supply and water quality in NSW—the risk of which is exacerbated in drought conditions. Wildfire can cause sedimentation that can reduce reservoir storage capacity and clog water intakes. Wildfire can also change the landscape's ability to absorb precipitation and buffer intense precipitation events, which can lead to changes in the hydrograph, including increased risk of flooding.

Several streams in the NSW are listed on the Oregon Department of Environmental Quality (ODEQ) 303(d) list. Several streams in the watershed are listed for temperature (for salmon and steelhead spawning; salmon and trout rearing and migration; core cold water habitat), biological criteria; aquatic weeds or algae; dissolved oxygen; sedimentation, and mercury (for human health). ODEQ has established Total Maximum Daily Loads (TMDLs) to address elevated temperature and mercury levels throughout the North Santiam sub-basin.





## Project Location

The project location includes the NSW and surrounding communities and water users that rely on the health of the NSW for water supply, economy, recreation, and more. The NSW (Figure 1) is located in Marion and Linn Counties in Oregon. The western reach of the watershed is approximately 15 miles south of Salem, extending eastward from the Willamette Valley floor to the western slopes of the Cascade Mountains. The watershed boundary area includes the communities of Idanha, Detroit, Breitenbush, Gates, Lyons, Mehama, Stayton, and Jefferson, and covers approximately 766 square miles (500,000 acres). The United States Geological Survey (USGS) Hydrologic Unit Code is 17090005.

## Technical Project Description

### Applicant Category

The NSW Stakeholders are seeking funding as an Existing Watershed Group. We have been working together in some fashion for close to a decade, facilitated by the City of Salem, North Santiam Watershed Council (NSWC), SWCD, and Marion County. We are a group of stakeholders that represent a wide range of interests in the watershed. We have recently completed a Drought Contingency Plan (DCP) with SWCD as the fiscal lead. Once again SWCD is acting as the fiscal agent/applicant on behalf of the NSW Stakeholders. The stakeholders include:

- Bureau of Land Management
- City of Albany
- City of Salem
- The small cities in the watershed (Jefferson, Stayton, Lyons/Mehama, Mill City, Gates, Detroit, Idanha)
- Confederated Tribes of Grand Ronde
- Confederated Tribes of Warm Springs
- Greenbelt Land Trust
- Linn County Roads Department
- Linn Soil & Water Conservation District
- Marion County
- Marion Soil & Water Conservation District
- NORPAC Foods
- North Santiam Watershed Council
- Natural Resource Conservation Service
- Oregon Department of Agriculture
- Oregon Department of Environmental Quality
- Oregon Department of Forestry
- Oregon Department of Fish and Wildlife
- Oregon Department of Transportation
- Private Landowners
- Santiam Water Control District
- US Army Corps of Engineers
- US Fish and Wildlife Service Partners Program

- US Forest Service – Detroit Ranger District
- US Geological Survey

Collaboration among these stakeholders began in 2009, when the NSWC and the City of Salem began a North Santiam Watershed Collaborative Planning Initiative, which consisted of interviews with stakeholders on issues and concerns related to water management. In April 2013, key water stakeholders were asked a series of questions to identify what the group wanted to focus on moving forward. Drought emergency rose to the top as the highest priority for the North Santiam basin efforts, and in the fall of 2015, the NSWC partnered with the Santiam Water Control District and other local watershed partners to create a DCP for the North Santiam River Basin, funded by a grant from Reclamation. Many of the NSW Stakeholders contributed to the DCP as cost-share partners, including;

- City of Salem
- Linn Soil & Water Conservation District
- Marion County
- Marion Soil & Water Conservation District
- North Santiam Watershed Council
- Norpac Foods Inc.
- Oregon Department of Agriculture
- Oregon Department of Environmental Quality
- Oregon Department of Forestry
- Santiam Water Control District
- Stayton Fire Department

Also in late 2015, NSWC led the formation of the Partners of the North Santiam Watershed (Partners) resiliency action planning workgroup. The Partners consist of local, non-governmental, county, state, federal and tribal natural resource landowners and managers who have been working together in the watershed for at least 3 to 5 years. Historically, the land managers and natural resource specialists in the watershed worked independently with limited collaboration. However, as resources and funding opportunities became scarcer, collaboration between the partners increased substantially. Partners have come together and successfully leveraged funding and resources to restore riparian areas, remove fish passage barriers, improve instream fish habitat complexity, monitor projects and educate community members throughout the watershed. The Partners developed a climate-informed Resiliency Action Plan to provide a coordinated, strategic implementation plan that will enable the Partners to prioritize and address the known limiting factors influencing the watershed’s ecological, social, and economic systems.

The Partners developed an extensive GIS modeling tool using existing natural resource and infrastructure data, as well as regional climate change projections analysis from scientists throughout the Pacific Northwest. The data incorporated into the model includes information on water quality and quantity, fish passage/migration, aquatic habitat, riparian, floodplain and terrestrial habitat data, location of existing restoration projects and conservation easements,

invasive weed layers, water intake locations, projected climate resiliency analysis from The Nature Conservancy (TNC), and the NorWest temperature data set, among others.

The Partners are now focusing on implementing high-priority restoration and capital improvement projects that will address factors affecting water quality and recovery of native fish populations.

These efforts led to the acknowledgement that it may difficult to garner full consensus necessary to propose, finance, and build infrastructure projects to bolster resiliency without data on the economic impacts of drought on the region's economy. The Oregon Business Council Charitable Institute partnered with the NSWC and received a Meyer Memorial Trust Basin Wide Impact Grant to engage the watershed stakeholders in the Willamette Valley/North Santiam Watershed to help develop the business case for investing in projects that promote watershed resiliency. This process, which works with watershed stakeholders to obtain data that captures the ecological, recreational, and economic values associated with water use in this region, is currently underway and will wrap up in May 2018.

### **Eligibility of Applicant**

We are a group of stakeholders that have come together out of necessity to protect our shared natural resources in a way that is inclusive, comprehensive, and based on sound science. We are non-regulatory, grassroots, and participatory. We represent a very diverse group of stakeholders in the basin, we work by consensus to the degree that it is possible, and we work hard to promote the sustainable use of water resources in the watershed. The SWCD is acting as the lead stakeholder/applicant and fiscal sponsor because of its existing relationship with Reclamation and its history of involvement with diverse multi-stakeholder group planning in the NSW, including active involvement in the NSW Drought Contingency Planning Group.

### **Goals**

The objective of the proposed project is to establish a unified and cohesive approach to building resiliency in the watershed by continuing to develop awareness and trust, and to foster effective collaboration across all stakeholders. Our aim is to integrate existing planning efforts, increase participation across a more diverse group of stakeholders, and develop a shared understanding of watershed challenges and the need to work together to address them. By doing so, we hope to accomplish the following:

- Building awareness and trust among groups currently less engaged with the NSW Stakeholders (specifically, water-dependent businesses).
- Ensuring all perspectives are fully represented, encompassing a broader conversation around water planning, economics, ecosystem science, cultural considerations, human health, and emergency management
- Identifying needs of additional stakeholders and determining whether there are gaps in planned projects
- Formalizing a more systemic, collaborative approach to protect and enhance the resiliency of the watershed

## Approach

To accomplish our goals, we plan to focus on:

- The further development of our watershed group via outreach activities to broaden stakeholder awareness, participation, and alignment (Task A)
- Preparing a funding strategy and timeline for projects and components included in the North Santiam DCP cooperative agreement #R15AC00081 and watershed restoration projects identified and prioritized in the Partners Resiliency Action Plan (Task B).

We do not plan to conduct activities in Task C as part of this project. Planned activities include:

### Watershed Group Development (Task A)

**Outreach and Communications:** Although we represent a wide range of stakeholder interests, we have found that certain groups, particularly those in the business, education, urban planning, and agricultural community, are not aware of our cooperative efforts and do not necessarily trust that our planning efforts represent their interests. We plan to bring these stakeholders into the conversation through outreach and communications to establish a more trusting, engaged, and effective partnership. Additionally, there are opportunities to build trust and engagement among stakeholder groups, including business, environmental organizations, government, scientists, educators, and recreation, through building a shared understanding of watershed challenges, stakeholder interdependence, and a shared vision for a healthy and resilient watershed.

Holding community meetings and activities has proven to be effective in involving the most active members of stakeholder groups, but it does little in the way of engaging those who feel less connected to or represented by the watershed council. We have learned from experience that the way to make the greatest impact is to develop a targeted outreach plan that meets stakeholder groups where they are. We plan to accomplish the following:

Subtask	Goal
Task A1: Travel throughout the NWS to meet with underrepresented or uninvolved groups stakeholders to build trust and understand unmet stakeholder needs.	Build trust and increase diversity in watershed management participation
Task A2: Prepare for and attend meetings with watershed experts.	Coordinate leadership alignment
Task A3: Align existing watershed-scale outreach and education materials and develop new materials.	Build a shared understanding of watershed challenges and interdependency among stakeholders
Task A4: Create watershed-scale contact list for outreach and education materials	Facilitate implementation of watershed plans, increase engagement in watershed management, and increase diversity in watershed planning processes

Task A5: Plan and hold leadership alignment symposium: “Reimagining a Healthy Watershed”

Increase engagement in watershed management, and increase diversity in watershed planning processes; develop shared vision for watershed environmental, social, and economic health and resiliency

---

### **Watershed Restoration Planning (Task B)**

**Project Planning:** We will interview and hold planning meetings with watershed group members and stakeholders—particularly those who feel underrepresented in the council—to identify needs and gaps, to ensure that our planning efforts are comprehensive and inclusive.

**Prioritization and Coordination of Watershed Management Projects:** Efforts that have been completed recently—including the North Santiam DCP and the Partners of the NS Resiliency Action Plan—have identified important actions needed for ensuring watershed resiliency. We now need to work with watershed stakeholders to prioritize and ensure buy-in and coordinated implementation of planned projects.

<b>Task</b>	<b>Goal</b>
Task B1: Conduct research and develop framework for water transactions program	Facilitate implementation of the Drought Contingency Plan
Task B2: Attend workshops or community events to showcase watershed resiliency planning and projects and enhance coordination with existing efforts	Build understanding of watershed challenges and interdependency among stakeholders
Task B3: Facilitate implementation of the Drought Contingency Plan and Partners of the NS Resiliency Action Plan	Work towards a more resilient watershed
Task B4: Facilitate communication among existing watershed planning groups; create watershed management calendar of events	Build greater awareness, cooperation, and alignment across the stakeholders

## **Evaluation Criteria**

### **Evaluation Criterion A—Watershed Group Diversity and Geographic Scope**

**Sub-criterion No. A1. Watershed Group Diversity.** Stakeholders affected by the quantity and quality of the water in the watershed include municipalities, irrigation districts, federal, state and county natural resource agencies, tribes, business, industry, and communities; many of these stakeholders currently participate today in planning efforts.

Collaboration yields solutions that are more effective and widely supported than efforts completed in isolation, and we are dedicated to working towards diverse representation within our group. Watershed stakeholders are more likely to trust planning efforts that are inclusive, and we have worked hard to cultivate a diverse range of stakeholder participation in our group. Involvement of some stakeholder groups is currently limited due to staff capacity, while

involvement of other stakeholder groups may be limited by limited understanding and trust of planning efforts.

The NSW Stakeholders believe that effective watershed management requires the engagement and cooperation with as broad a stakeholder base as possible. Despite efforts to ensure diverse participation, certain stakeholder groups have limited participation in watershed planning, most notably agricultural groups. There are more than 450 farms and 750 operators in the North Santiam subbasin. Two-thirds of the farms are fewer than 50 acres, and do not have the resources nor the time to be actively involved in watershed planning. Some of these farmers receive water through irrigation contracts with Reclamation. Other groups in the watershed with limited participation in watershed planning include water-dependent industries, the private timber industry, and small water users, including the communities of Lyons, Mehama, Mill City, Gates, Detroit, Idanha, and Marion Forks, which have limited capacity for staff involvement. Many of these communities are also bordered by federal lands, including the Willamette National Forest, and are close to state lands, such as the Santiam State Forest. Aligning and improving communication efforts across the watershed will expand lines of communication between federal and state entities and local communities, and continue to develop existing lines of communication between county entities, such as emergency management groups, and federal and state partners.

To address this lack of representation, we plan to identify experts that represent stakeholder groups as well as individual stakeholders throughout the watershed to meet and engage with on both a one-on-one basis and in small group presentations that we will bring to them (rather than invite them to come to us). We will also develop outreach and marketing materials to help bolster recruitment and participation. The target audience for communication and outreach materials will be broad, including federal, state, and local governments, tribes, and local communities. Outreach and education efforts will assist groups with limited capacity for involvement in keeping their members informed and aware of watershed planning as well as advertise opportunities for involvement in planning efforts. In-person outreach efforts will help facilitate dialogue with groups whose involvement is limited in part due to low trust and understanding of planning efforts, including farmers who receive water through Reclamation contracts.

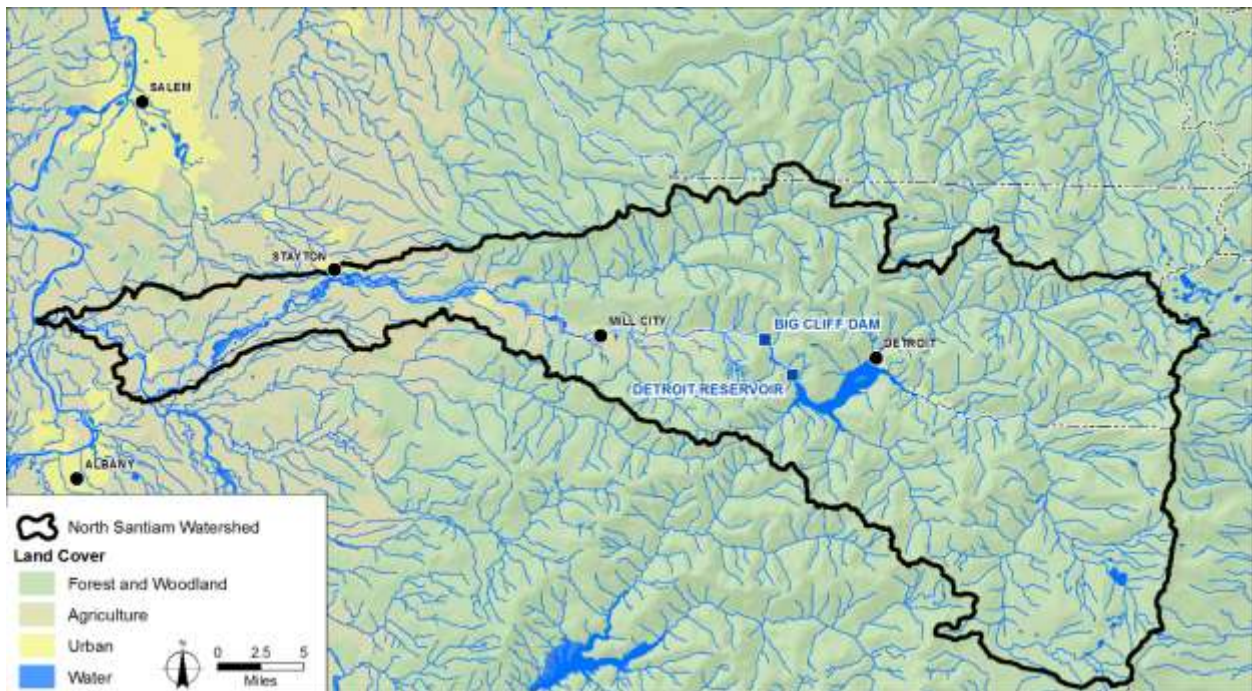
By bringing a more representative group of stakeholders into the fold, we will be able to increase trusting relationships between individuals and foster improved communication and planning efforts across the watershed. We will lead conversations to further identify concerns so that we can include those concerns in planning efforts. This will help build further credibility for our process to align leaders with a shared vision for a healthy watershed. Our awareness campaigns will extend throughout the watershed, taking into consideration all stakeholders and the complexity of interdependencies. As we convene and align our vision with our community of engaged stakeholders, we will naturally produce requests for change in our future. Aligning our vision and commitment to a healthy watershed may generate requests for policy change to how we currently protect, store, and use our water. The process of convening our leaders across all



stakeholders on a regular basis to share, review, and assess progress towards health must be an ongoing effort as we face climate and population changes.

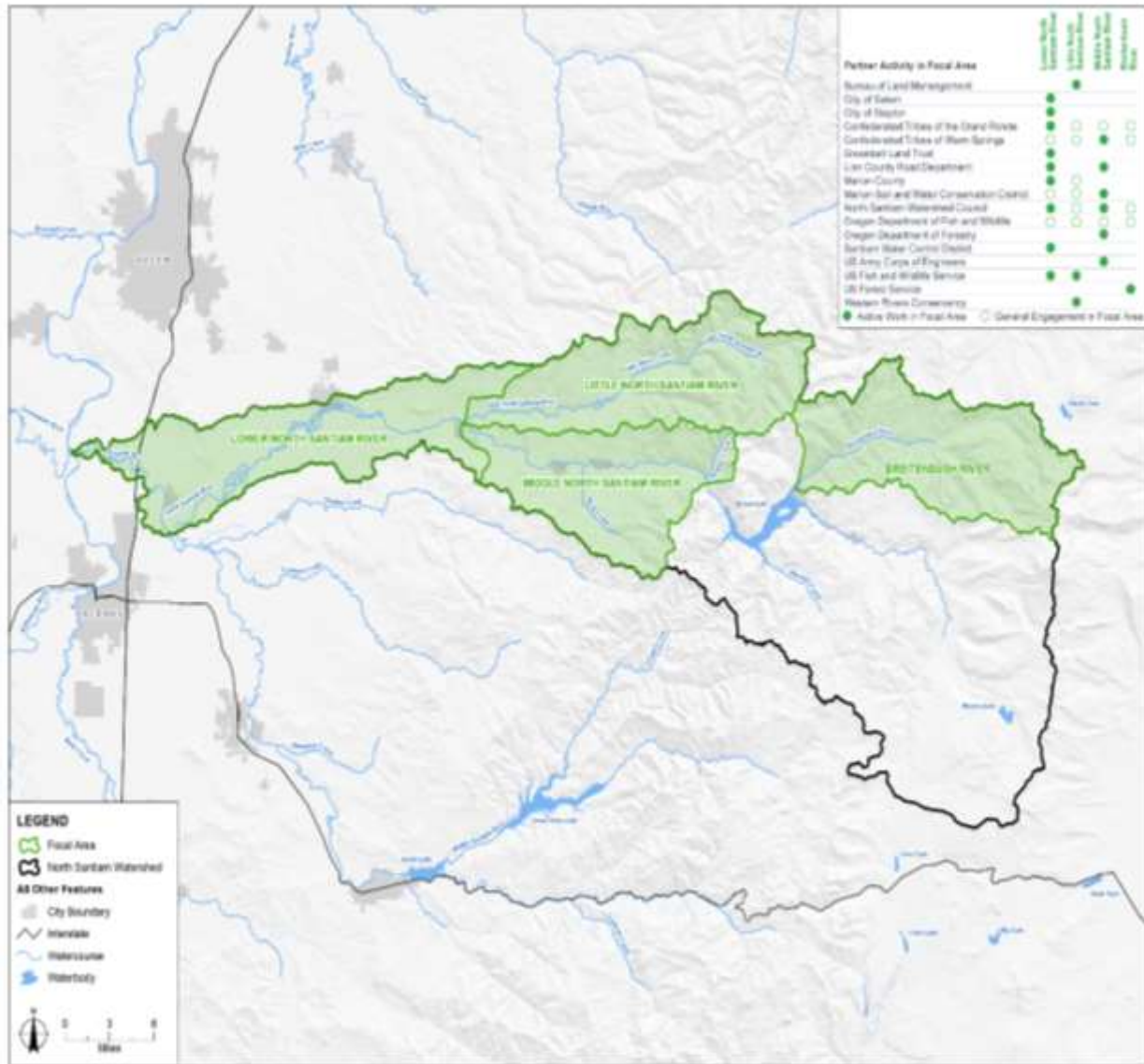
We consider our next two years as foundational work toward a resilient watershed community. We will continue to build a broader base of stakeholders to include in these conversations that move our vision into the strategies of the many disparate groups and communities that benefit from the water of the NSW. Creating a community of participants that share the same vision and are willing to work together to align their strategies will be an ongoing process. Stakeholder groups have shown that their respective strategies are focused on their respective missions. Without the awareness and sharing of the broader issues, organizations rightly continue to focus on their own concerns. Our work is designed to bridge those gaps and bring awareness and commitment to what we all care about most: the health of our community and our watershed.

**Sub-criterion No. A2. Geographic Scope.** Figure 2 illustrates the geographic boundary of the watershed (USGS HUC 17090005) as well as surrounding metro areas that rely on the watershed for their water supplies (the Cities of Salem, Stayton, Detroit, and Albany). We intend to engage stakeholders in all reaches of the watershed as well as those outside of the watershed boundary that are affected by management decisions in the watershed.



**Figure 2: North Santiam Watershed Map**

The western reach of the watershed is home to urban and rural communities as well as agricultural stakeholders. In contrast, the eastern two-thirds of the watershed is publically owned forest and woodland; stakeholders there include Reclamation, USFS, community members, and the Confederated Tribes of Warm Springs. Stakeholders downstream of the watershed include the City of Salem, the City of Albany, and the Confederated Tribes of the Grand Ronde. Figure 3 outlines the areas of the watershed where the Partners of the North Santiam are currently engaged.



**Figure 3: Partners of the North Santiam Planning Map as of 2018**

In identifying underrepresented stakeholder groups, we will look at various sectors (agricultural, economic, private, etc.) as well as geographic location within the project area. We will work to broaden the geographical focus depicted in Figure 3 to ensure that stakeholders from all reaches of the watershed are engaged in planning efforts. In identifying stakeholders, we will actively



target representatives from the less active reaches of the watershed, most notably in the southeast portion.

## Evaluation Criterion B—Addressing Critical Watershed Needs

**Sub-criterion No. B1. Critical Watershed Needs or Issues.** Important areas of focus in the NSW include:

- Improving water quality and quantity management by increasing the implementation of effective best management practices for stormwater, agricultural, and forestry runoff in priority watersheds/stream/riparian corridors.
- Prioritizing management locations that will address the greatest pollutant loads and hydrologic modification for point and nonpoint sources in order to restore water quality.

In 1996 the DEQ and DHS, which jointly administer a Drinking Water Protection Program, completed several source water assessments. These assessments identify potential sources of contamination from both non-point and point sources so that individual communities can use results to voluntarily develop strategies to protect source areas. For public water systems served by North Santiam River water sources, the top 10 most threatening “potential contaminant sources” from higher risk categories of inventoried sites are listed below.

<b>Surface Water Sources</b>	
<i>Rank</i>	<i>Potential Contaminant Sources</i>
1	Above ground storage tanks – excluding water and residential ASTs
2	Automobiles – gas stations
3	Transportation – freeways/state highways
4	Known contamination sites/plumes/spills (ECSI)
5	Junk/scrap/salvage yards
6	Wells – Residential/municipal and commercial/industrial
7	Transmission lines – right-of-ways
8	Large capacity septic systems (serves >20 people) – Class V UICs
9	Housing – high density (>1 house/0.5 acre)
10	Wood/pulp/paper processing and mills
10	Managed forest land – clearcut harvest (<35 years
10	Mining activities – gravel mines/gravel pits
10	Grazing animals (>5 large animals or equivalent/acre)
10	Drinking water treatment plants
10	Schools
10	Automobile – repair shops
<b>Groundwater Sources</b>	
<i>Rank</i>	<i>Potential Contaminant Sources</i>
1	Housing – high density (>1 house/0.5 acre)
2	Crops – irrigates (including orchards, vineyards, nurseries, greenhouses)
3	Known contamination sites/plumes/spills (ECSI)

4	Fleet/trucking/bus terminals
5	Septic systems – high density (>1 system/acre)
6	Metal plating/finishing/fabrication
7	Parking lots/malls (>50 spaces)
8	Wood/pulp/paper processing and mills
9	Large capacity septic systems (serves >20 people) – Class V UICs
10	Above ground storage tanks – excluding water and residential ASTs
10	Transportation – railroads
10	Transportation – freeways/state highways

Furthermore, according to local ODEQ assessments portions of North Santiam Watershed waterways are on the 303(d) list for exceeding summer temperatures for salmonid survival. Lack of riparian canopy and shade has been identified as a possible source for increased temperatures (which can also lead to excessive algal growth in surface water supplies). Only 25 percent of the original extent of riparian floodplain forest remain in the lower portion of the watershed.

### Native Fish

Historically, the North Santiam River contained significant runs of Upper Willamette spring Chinook salmon and winter steelhead, and remains a key target basin for the recovery of these ESA-threatened species. With the majority of the high quality habitat located above major fish passage barriers (namely Detroit and Big Cliff Dams), restoration priorities for the watershed council are side channels and tributaries below these fish passage barriers. While native fish and wildlife species have been observed in the floodplain habitats of the North Santiam River, quality habitat is limited and compromised due to channel simplification, installation and maintenance of flood and channel migration control structures, invasive species, and conversion of floodplain forests to agricultural fields, commercial forests, and urban centers.

The Partners have identified and prioritized projects that restore tributaries and side channels where these species can readily access and utilize during all phases of their life. Projects include: instream habitat enhancement, fish passage barrier removal, floodplain reconnection, riparian enhancement and water quality protection. Using GIS analysis, the Partners have incorporated local sub-basin knowledge to identify actions that will collectively address the limiting factors influencing water quality and native fish populations.

### Drought

In 2015, the headwaters of the NSW experienced “severe drought,” and the western portion of the watershed experienced “moderate drought.” The Governor declared a state of drought emergency for both counties that comprise the watershed (Linn and Marion Counties) because of drought, low snowpack levels, and low water conditions (Executive Orders 15-11 and 15-19). In June 2015, Detroit Lake levels were 60 feet below normal, and storage was 33 percent of normal. Also in 2015, air temperatures were approximately 5 to 10 degrees Fahrenheit (°F) above normal at the beginning of the year, and the warmest on record for June (7.7 °F above average).

The Oregon Climate Change Research Institute (2013) has predicted temperature increases of 0.2 to 1 °F per decade through 2100 in the Oregon Cascades, where the NSW is located. Annual

precipitation patterns are expected to change, resulting in winters with more rainfall, reduced winter snowpack, and longer dry seasons.

Releases from Detroit Lake are managed according to federally mandated regulations that provide for flood protection and control of flows to foster recovery of salmon and steelhead listed as threatened under the Endangered Species Act. As a result, most stakeholders have little control over the amount of water stored or available downstream of Detroit Lake. This lack of control over water availability creates significant uncertainty. Changes in reservoir storage and releases during drought conditions could impact many stakeholders.

The North Santiam Drought Contingency Plan, developed with a grant from Reclamation, addresses these uncertainties and lays out mitigation actions that the watershed can take to address vulnerabilities before a drought occurs. Now, watershed-wide buy-in and support is needed to implement and plan for these actions.

**Sub-criterion No. B2. Developing Strategies to Address Critical Watershed Needs or Issues.** Collaboration and partnership is essential to effectively developing and implementing strategies to address the critical issues facing the watershed. We plan to do the following:

**Stakeholder Outreach and Partnership Building:** Outreach and partnership building activities will involve conducting one-on-one meetings and small group presentations to bring new stakeholders to the table and get existing stakeholders more involved. We will expand our watershed contact list for communication and outreach efforts to include currently underrepresented stakeholder groups, including agriculture, timber industry, tribal governments, and currently uninvolved conservation organizations. We will also continue existing efforts (town hall meetings, council meetings, Basin Summit) and align existing outreach materials and develop new materials to advertise these events more effectively.

Partnership building efforts will involve strengthening coordination among existing multi-stakeholder planning groups and their members, including conservation organizations that focus on balanced stewardship and use of public lands (e.g. the Willamette Riverkeeper and Nature Conservancy) and the USFS, which is involved in management of recreation on streams throughout the watershed and at the Detroit Lake facility, and the BLM Salem District will continue to be involved in watershed planning efforts.

**Watershed Restoration Planning:** Many the watershed planning efforts have already been completed (in the Partners of the NS Resiliency Action Plan and the North Santiam Drought Contingency Plan).

Funded by a grant from the U.S. Bureau of Reclamation to help fund drought planning efforts, eleven partners agreed to assist the irrigation district with meeting the 50/50 cost share grant obligations: City of Salem, City of Stayton, Stayton Fire, Linn SWCD, Marion County, Marion SWCD, NORPAC Foods, Inc., NSWC, Oregon Department of Agriculture, ODEQ and Oregon Department of Forestry. A local stakeholder task force was formed in the winter of 2016, which led to the development of the Drought Contingency Plan. The goal of this plan was to build long-

term resiliency to drought in order to minimize impacts to the communities, local economies, and the critical natural resources within the watershed.

After identifying the watershed assets vulnerable to drought, the task force developed a list of potential Mitigation Actions that could help reduce risks and impacts before drought. Along with the vulnerability assessment and proposed mitigation actions the watershed stakeholders have collected relevant ecological data that characterizes the various resiliency ‘hot spots’ in the watershed.

We are now engaged in a process to prioritize actions and plan for implementation; we have also begun an economic analysis to assess the full water story in the North Santiam Riparian and Subbasin area. These efforts will help us to further determine next steps and build alignment across stakeholder groups. As stakeholder engagement increases and strengthens, we will also reassess our project priorities to identify and plan for any gaps or holes in our planning.

**Watershed Management Project Design:** Project design efforts will be included in a later phase of our planning process.

## Evaluation Criterion C—Implementation and Results

### **Sub-criterion No. C1. Understanding of and Ability to Meet Program Requirements.**

Please see Budget Proposal for a breakdown of cost by task. All subtasks are a long-term efforts and will be ongoing for the duration of the project. They will be completed over the course of two years between July 2018 and June 2020.

### **Sub-criterion No. C2. Building on Relevant Federal, State, or Regional Planning Efforts.**

NOAA has issued a Biological Opinion for the Willamette River Project Reservoirs, which includes Detroit Reservoir. Increased outreach, communication, and integrated implementation of regional planning efforts will support NOAA’s efforts to protect fish species in the watershed.

Two keystone regional watershed planning efforts in the NSW include the North Santiam DCP and the Partners of the NS Resiliency Action Plan. The NSW Stakeholders will directly complement the goals of these plans by facilitating communication among the planning teams, encouraging integration of the two planning efforts, and creating and implementing a communication and outreach strategy that promotes both of these plans.

Another regional planning effort in the NSW is the Annual North Santiam Basin Summit. The City of Salem, Marion County, and the NSWC have been holding collaborative watershed stakeholder summits annually since 2009. Major summit discussion topics included: watershed-scale communication, data management, emergency planning, infrastructure failure, flooding, and drought. The NSW Stakeholders will assist the City of Salem, the NSWC, and Marion County with the facilitation of the Annual Basin Summit by assisting in planning the summit, presenting at the summit, and advertising the summit. In this process, we will propose further and more coordinated convening of NSW leaders to align their respective strategies to generate the shared vision for health in the NSW.

## Evaluation Criterion D—Nexus to Department of the Interior Initiatives

One of the authorized purposes of the WVP is the distribution of stored water to users that have contracts with Reclamation for irrigation use. Reclamation administers the water marketing program whereby landowners and/or institutions contract for a portion of WVP conservation storage for the purpose of irrigation. In administering the water marketing program, Reclamation considers entering into water service contracts discretionary agency decisions subject to review under the requirements of NEPA (USBOR, 2012); Reclamation also receives payments for the contracted water on behalf of the U.S. Government. Reclamation currently manages contracts for the use of stored water in Detroit Reservoir subject to the Willamette system biological opinion and several Reasonable and Prudent Alternatives (RPAs) related to the contract program. RPA 3.1 specifically addresses the NSW. Increasing communication among irrigators and other watershed groups will help to increase trust and shared understanding of watershed challenges. Additionally, building relationships with irrigators creates opportunities for future water marketing strategies that can improve the flexibility of water supply instream and out of stream.

The NSW Stakeholders seek to improve the overall health and resiliency of the NSW. The further development of the NSW Stakeholders watershed group and its outreach and communication efforts will increase understanding of instream needs in the NSW, including the needs of listed and sensitive fish species, including chinook, steelhead, and pacific Lamprey.

The Confederated Tribes of the Grand Ronde, the Confederated Tribes of Warm Springs, and Confederated Tribes of Siletz have a shared interest in the health of fish and wildlife species in the NSW, including species that are not federally protected under the ESA, such as Pacific lamprey. Increased coordination of existing watershed restoration efforts and trust among stakeholder groups can facilitate restoration projects that lead to the recovery of ESA-listed species as well as efforts that go above and beyond protecting only those species that are ESA-listed.

### D.2.2.5 Environmental and Cultural Resources Compliance

This project does not include monitoring, measurement, or any field work.

### D.2.2.6

#### Budget Proposal

BUDGET ITEM DESCRIPTION	COMPUTATION		Quantity Type	TOTAL COST
	\$/Unit	Quantity		
Salaries and Wages				
Fringe Benefits				

Travel				
Equipment				
Supplies and Materials				
Contractual/Construction				
<b>Task A1</b>				
Principal Water Resources Consultant	180	12 Hours	Hours	2,160
Water Resources Consultant	120	10 Hours	Hours	1,200
Staff Water Resources Consultant	90	70Hours	Hours	6,300
GIS/Graphics	115	0 Hours	Hours	0
Travel		-		1,500
<b>Task A2</b>				
Principal Water Resources Consultant	180	0 Hours	Hours	0
Water Resources Consultant	120	0 Hours	Hours	0
Staff Water Resources Consultant	90	100 Hours	Hours	9,000
GIS/Graphics	115	Hours	Hours	0
Travel	-	-	-	500
<b>Task A3</b>				
Principal Water Resources Consultant	180	0 Hours	Hours	0
Water Resources Consultant	120	15 Hours	Hours	1,800
Staff Water Resources Consultant	90	60 Hours	Hours	5,400
GIS/Graphics	115	30 Hours	Hours	3,450
Travel	-	-	-	
<b>Task A4</b>				
Principal Water Resources Consultant	180	0 Hours	Hours	0
Water Resources Consultant	120	5 Hours	Hours	600
Staff Water Resources Consultant	90	30 Hours	Hours	2,700
GIS/Graphics	115	0 Hours	Hours	0
Travel	-	-	-	
<b>Task A5</b>				
Principal Water Resources Consultant	180	0 Hours	Hours	0
Water Resources Consultant	120	20 Hours	Hours	2,400
Staff Water Resources Consultant	90	120 Hours	Hours	10,800
GIS/Graphics	115	40 Hours	Hours	4,600
Travel	-	-		500

<b>Task B1</b>				
Principal Water Resources Consultant	180	15 Hours	Hours	2,700
Water Resources Consultant	120	10 Hours	Hours	1,200
Staff Water Resources Consultant	90	120 Hours	Hours	10,800
GIS/Graphics	115	0 Hours	Hours	0
Travel	-	-	-	
<b>Task B2</b>				
Principal Water Resources Consultant	180	0 Hours	Hours	0
Water Resources Consultant	120	15 Hours	Hours	600
Staff Water Resources Consultant	90	33 Hours	Hours	3,000
GIS/Graphics	115	15 Hours	Hours	1,750
Travel	-	-		600
<b>Task B3</b>				
Principal Water Resources Consultant	180	5 Hours	Hours	900
Water Resources Consultant	120	10 Hours	Hours	1,200
Staff Water Resources Consultant	90	100 Hours	Hours	9000
GIS/Graphics	115	10 Hours	Hours	1,150
Travel	-	-	-	
<b>Task B4</b>				
Principal Water Resources Consultant	180	0 Hours	Hours	0
Water Resources Consultant	120	10 Hours	Hours	1,200
Staff Water Resources Consultant	90	20 Hours	Hours	1,800
GIS/Graphics	115	10 Hours	Hours	1,150
Travel	-	-	-	
Other				
<b>TOTAL DIRECT COSTS</b>				<b>\$89,960</b>
Indirect Costs				
Administration	10%			\$10,000
<b>TOTAL ESTIMATED PROJECT COSTS</b>				<b>\$99,960</b>

## Budget Narrative

### Contractual

The NSW Stakeholders expect to complete a majority of this project using contracted services. Contracted services comprise \$99,935, a majority of the budget for this project. NSW Stakeholders expects to retain a team of water resources planners from GSI Water Solutions, Inc. (GSI), to execute this project. GSI was the firm that developed the North Santiam Drought Contingency Plan, and contributed to the Partners of the NSWC Resiliency Action Plan. GSI is familiar and has worked directly with many of the basin's stakeholders. For example, GSI has

worked on the Willamette Basin Reallocation Study and with the City of Salem and other basin stakeholders for many years and, and is extremely familiar with water supply challenges in the region.

On behalf of the NSW Stakeholders, Santiam WCD asked GSI to support the development of this grant because of their knowledge and relevant expertise in multi-stakeholder water resource planning efforts. Santiam WCD developed these costs in consultation with the GSI team and believes the budgeted labor and expenses represent the appropriate level of effort necessary to complete these watershed management efforts. In Santiam WCD’s experience, the billing rates for contracted services are commensurate with the levels of expertise and experience provided by the GSI team members, and thus are fair and reasonable.

Please refer to the budget table above for a breakdown of time and rates by task.

<b>Task A</b>	<b>Description of GSI’s Work</b>
Task A1: Travel throughout the NWS to meet with underrepresented or uninformed groups stakeholders to build trust and understand unmet stakeholder needs.	<ul style="list-style-type: none"> <li>Identify and prioritize a list of underrepresented stakeholders</li> <li>Attend meetings with identified stakeholders throughout the NWS</li> <li>Interview members and stakeholders to identify gaps and watershed protection needs that may not have been addressed with current plans</li> </ul>
Task A2: Prepare for and attend meetings with watershed experts	<ul style="list-style-type: none"> <li>Prepare presentation materials</li> </ul>
Task A3: Align existing watershed-scale outreach and education materials and develop new materials.	<ul style="list-style-type: none"> <li>Develop and produce materials, including website content, e-newsletters, and flyers</li> </ul>
Task A4. Create watershed-scale contact list for outreach and education materials	<ul style="list-style-type: none"> <li>Develop an email contact list for stakeholders in the watershed.</li> </ul>
Task A5: Plan and hold leadership alignment symposium: “Reimagining a Healthy Watershed”	<ul style="list-style-type: none"> <li>Support symposium planning and preparation</li> <li>Develop presentation materials</li> </ul>
<b>Task B</b>	
Task B1: Conduct research and develop framework for water transactions program	<ul style="list-style-type: none"> <li>Create short report and presentation. Present to NSW, DCP, and Partners of NS.</li> </ul> <p>Develop a pooled instream lease application for SWCD</p>
Task B2: Attend workshops or community events to showcase watershed resiliency planning and	<ul style="list-style-type: none"> <li>Prepare presentation materials</li> <li>Share information regarding planning efforts and discuss efforts with stakeholders</li> </ul>



projects and enhance coordination with existing efforts	<ul style="list-style-type: none"> <li>• Document stakeholder groups' challenges and concerns</li> </ul>
Task B3 Facilitate implementation of the Drought Contingency Plan and Partners of the NS Resiliency Action Plan	<ul style="list-style-type: none"> <li>• Establish and carry out actions for a monitoring group, mitigation group, response group, and update group for the DCP.</li> </ul>
Task B4: Facilitate communication among existing watershed planning groups	<ul style="list-style-type: none"> <li>• Create and maintain watershed management calendar of events.</li> </ul>

**Indirect Costs**

Consultant administrative fees have been included in the above budget.

**Total Costs**

Total project cost is \$99,935



January 30, 2018

RE: North Santiam Watershed Cooperative Watershed Management Program (CWOMP) Grant Proposal

To Whom It May Concern,

On behalf of Norpac Foods, I am writing this letter in support of the North Santiam Watershed Stakeholders' 2018 WaterSMART North Santiam Watershed Management Program grant proposal.

The land and water uses in the North Santiam watershed are diverse, including timber, agriculture, recreation and rural residential and urban uses, which all merge together to form a complex mix of natural resource related opportunities and challenges. The creation of the Drought Contingency Plan for the North Santiam Watershed has helped to build communication and coordination surrounding the effects of drought, which are a major issue of concern for all those who rely on the North Santiam River system.

As a major industrial user of the North Santiam water, Norpac values its partnerships and wants to work with its fellow community stakeholders on projects that will protect, conserve and enhance the North Santiam watershed's natural resources. This grant would facilitate improved communication, outreach, and education throughout the watershed that helps to build partnerships between fellow stakeholders.

Norpac is in strong support of continuing the implementation of the North Santiam Watershed Drought Contingency Plan and coordinating drought planning efforts with other watershed management activities in the watershed, including the Partners of the North Santiam Action Plan.

Norpac is in strong support of the North Santiam Watershed Cooperative Watershed Management Program Grant Proposal.

Please contact me if you have any questions regarding this letter of support.

Sincerely,



Randy Bentz  
Director of Operational Improvement  
NORPAC Foods, Inc.



*Providing opportunities for stakeholders to cooperate in promoting  
and sustaining the health of the watershed and its communities.*

---

January 30, 2018

WaterSMART  
Bureau of Reclamation

RE: North Santiam Cooperative Watershed Management Program (CWMP) Grant Proposal

To Whom It May Concern,

On behalf of the North Santiam Watershed Council (NSWC), I am writing this letter in support of the North Santiam Watershed Stakeholders' 2018 WaterSMART North Santiam Watershed Management Program grant proposal. The watershed council understands engagement with fellow community stakeholders is the key to success in developing projects that will protect, conserve, and enhance the North Santiam Watershed's natural resources.

Partnership across stakeholder groups is critical to effective watershed management, and cannot be done without deep trust and collaboration between groups. The funds from this grant would help further these partnerships, increase participation, and move existing planning projects forward to build increased watershed resiliency. This is consistent with the NSWC mission of working together with interested parties to facilitate the restoration and protection of habitats important to fish and wildlife and to support the economy and quality of life in its communities.

The North Santiam Watershed (NSW) is a fourth field watershed within the Willamette Basin. It covers approximately 766 square miles (approximately 500,000 acres) on western slopes of the Cascade Mountains to the Willamette Valley floor. Land and water uses are diverse, including timber, agriculture, recreation, rural residential and urban areas, which merge with a complex mix of features and regulations that intersect in the watershed. As a result, the North Santiam Watershed is a crossroads of diversity of natural resource related challenges.

The City of Salem and the NSWC have been holding collaborative watershed stakeholder annual summits since 2009. Major discussion topics have included communication, data management, emergency planning, infrastructure failure, flooding and drought. Over the past two years, the NSWC has assisted in facilitating the development of the North Santiam Drought Contingency Plan. The NSWC has also coordinated restoration in the watershed through establishing and facilitating the Partners of the North Santiam and their resiliency action planning efforts. With these two planning efforts underway, there is a strong need for further community outreach, education and coordination.

The NSWC believes that the North Santiam Water Control District's 2018 CWMP grant proposal, if granted, would help to coordinate existing efforts to promote watershed health and resiliency. We are in strong support of the North Santiam Cooperative Watershed Management Program grant proposal.

Please contact me if you have any questions regarding this letter of support.

Thank you for your time.

Sincerely,

A handwritten signature in blue ink that reads "Rebecca McCoun".

Rebecca McCoun  
Executive Director  
North Santiam Watershed Council