

A Cover Page

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The area included in the proposed planning process is the South Santiam River Basin, HUC #17090006.

Key partners include: United States Forest Service (USFS), Cascade Timber Consulting (CTC), South Santiam All Lands Collaborative (SSALC), Linn County, City of Sweet Home, City of Lebanon and the South Santiam Watershed Council (SSWC). Groups that would be included in the process as it moves forward include: Army Corps of Engineers, Federal Emergency Management Agency, Bureau of Land Management, Oregon Department of Transportation, Oregon Department of environmental Quality and the Oregon Department of Fish and Wildlife. Letters of support from partners can be provided at a later date.

Executive summary

We want to initiate Place Based Planning because there is a need and an express interest by local communities. The South Santiam River provides drinking water to the communities of Sweet Home, Lebanon, as well as Albany and recently Sodaville (both located outside the Santiam basin). Because over 75,000 people rely on the South Santiam River for drinking water, agriculture, recreation, industry and in-stream needs, there is a strong desire to formulate a coherent and consistent plan to guide the region as demands on water resources increase. The need for a plan will become more apparent as the population of the Willamette Valley increases amid the uncertainty of the South Santiam River to meet water demands amid the scenario of a changing climate. The area is ready because several agencies, business, and local government are already collaborating on land management and livability issues in east Linn County. Encompassing water resources is a logical next step within the existing collaborative framework. Place based water resources planning will not only further collaboration amongst local partners but will 1) provide a sound basis for evaluating future water resource needs of municipalities reliant upon the South Santiam River, 2) provide a risk assessment of threats to the drinking water source and 3) provide a consistent plan in the case of a contaminant spill into the South Santiam river, reservoirs or tributaries.

B Description of the Convener

The South Santiam Watershed Council (SSWC), 501(c)(3) nonprofit, has been active in the South Santiam basin for over 20 years. The SSWC has been involved with extensive riparian reforestation efforts, culvert replacements, in stream fish habitat enhancement, environmental education, water quality studies, 6 years of continuous water temperature monitoring, fish sampling, and community engagement. The SSWC recently

complemented an assessment of ambient water quality of numerous tributaries to the South Santiam through a 2 year continuous sampling effort funded by OWEB and OR DEQ. Results have been presented publicly to local cities and other stakeholders. Findings can assist in planning guidance for local Designated Management Agencies (DMA's). The SSWC is an active member of SSALC, a local coalition working voluntarily on land management issues across public and private landownerships.

The SSWC plans to be actively involved in the restoration of instream habitats in the future, projects which contribute to source water protection and enhancement through the reestablishment of ecosystem function in priority areas. The SSWC funded the creation of the South Santiam Watershed assessment, drafted in 2000. The SSWC has received numerous grants from OWEB to restore instream habitats in Moose Creek (current OWEB grant #213-3004), Soda Fork Creek, Canyon and Owl creeks all tributaries to the upper South Santiam River. The SSWC is an advisor on the local agriculture committee (LAC) in Linn County. The SSWC a part of the Meyer Memorial Trust's Willamette Model Watershed Program, a 10 program dedicated to increasing the pace and scope of community based restoration.

The target area is the South Santiam River basin. The primary target population are those users that are dependent South Santiam River for drinking water, agriculture, industry, recreation and in-stream uses. Other important users or uses may become apparent as the process unfolds.

The SSWC is an appropriate convener because the organization has a long history in the community (20 years), is a neutral organization, non-political, not a government body, is respected in the community, is visible in the community, has a deep understanding of the complexity associated with managing a resource for sometimes conflicting uses. In addition the SSWC is a nonprofit 501(c)(3) organization capable of providing fiscal services for grants and currently provides fiscal services to the SSALC.

The SSWC has regularly engaged diverse stakeholder groups on highly complex, multiyear projects funded through multiple grants. One example has been a 2 year water quality study of multiple tributaries in the South Santiam River occurring on multiple jurisdictions.

C Integration, Partnerships and Stakeholder Engagement

The existing partners include:

United States Forest Service - management of federal lands in the basin

Bureau of Land Management - management of federal lands in the basin

Linn County Government - local support, buy in

Cascade Timber Consulting - management of private lands, support of local timber industry

Sweet Home Economic Development Group (SHEDG) - economic development

South Santiam All Lands Collaborative (SSALC) - meeting facilitation, land management assistance

Local land owners - various skills, local buy in
City of Sweet Home - planning department, city buy in
City of Lebanon - engineering, city buy in

Future expected partners:

Army Corps of Engineers - reservoir operations
Oregon Department of Forestry - management of state lands
Oregon Department of Fish and Wildlife - management of fisheries
Oregon Department of Transportation - transportation systems

Other partners/stakeholders may be identified and included that are not listed here. It is expected that partners will be identified and engaged at the outset of the planning process, rather than brought in at a later date.

Stakeholders will be identified that involve a diverse set of interests and expertise, planning will be based on the best available science and will follow accepted methods outlined for group decision making. A challenge will be to assemble the appropriate stakeholders and keep their enthusiasm for a 2 year process. Group dynamics are an important consideration in process such as Place Based Planning. For example, one group may try to dominate meetings and force an agenda on others, while introverts vs extroverts communicate differently in a group setting. It is important to recognize stages of group formation and function as the process unfolds, as well as different individual communication styles.

Conflict is a natural outgrowth of group dynamics. Not all conflict is bad and there are ways to resolve conflict. Not all stakeholders will agree on all outcomes, but recognizing this and using appropriate methods such “fist to five” or consensus vs majority decision making will help the process. Basic methods of limiting conflict are to have meetings in a neutral setting, record and send notes to the group, enact formal rules around decision making, encourage the participation of as many individuals as reasonably possible in decision making that affects the group, understand different communication styles and as a convener work to keep communication open. Transparency and inclusion are important elements that will keep all parties interested, engaged and productive.

The SSWC has worked with diverse local interests for 20 years. SSWC employees are currently participating in the Ford Institute Leadership Program, a training program emphasizes community leadership development. SSWC employees are trained in communication, managing conflict, working in groups, meeting efficiency and group decision making.

One of the key lessons from working at a watershed council is active listening to the needs of the individuals we work with in order to build trust and relationships with individuals we work with. Our council meetings are open to the public and meeting minutes are put on line. Local newspapers are invited to watershed council events.

A timeline will be constructed at a later date that identifies key activities and dates. A communication plan will be put together at a later date.

D Statement of Need

There are many current and expected water issues in the South Santiam basin. Some issues are listed below:

Water Quantity

Some tributaries to the South Santiam are over appropriated. Increasing demand on the resource may lead to conflict, reduced economic growth adverse effects to in-stream resources such as fisheries.

The quantity of water in the summer (e.g. summer low flow) is projected to decrease as summers become hotter and last longer. Green Peter and Foster Reservoir levels were both very low in 2015 which impacted some users recreation experience.

Warmer winters are expected produce less snowfall and resultant snowmelt, which is expected to affect the timing of flows with in the Santiam basin. As changes to flow timing occur, reservoir management operations may change as well (Mateus, Cristina, Desiree D. Tullos, and Christopher G. Surfleet, 2014. Hydrologic Sensitivity to Climate and Land Use Changes in the Santiam River Basin, Oregon. Journal of the American Water Resources Association (JAWRA) 1-21. DOI: 10.1111/jawr.12256).

Recent water management plans by local municipalities projected adequate water supply. However, management plans did not take into account alternate scenarios of water production within the basin. The quantity of available water will most likely decrease in years to come. (See Water management plans for Lebanon and Albany)

Because surface water and ground water are connected, decreases in surface water may affect ground water in some locations. Groundwater does not always follow the rules of the traditional watershed delineation. The city of Sodaville has had to purchase water from Lebanon due to lack of groundwater (see Democrat Herold newspaper Nov 17, 2015).

Water Quality

Stream temperature is a pollutant according to the OR DEQ. A large number of river miles within the South Santiam do not meet the temperature thresholds set for by the OR DEQ and 7-day average maximum temperatures often exceed state recommendations. High stream temperatures are a known threat to cold water fishes such as ESA listed winter run steelhead and spring chinook. Both fishes occur in the South Santiam basin and have been the focus of numerous restoration projects aimed at reestablishing the riparian zone as well as enhancing instream habitat.

Invasive plants often do not have high fish and wildlife value. Invasive species such as Japanese knotweed and Himalayan blackberry often crowd out and suppress native trees and shrubs found in the riparian zone. The invasive plants often have a weak root structure and do not prevent erosion as well as natives, leading to increased turbidity. Many types of stream fishes need large logs to fall into the river channel to help promote channel complexity and habitat creation. Invasives suppress the growth of beneficial native trees and shrubs which reduces future wood recruitment into the stream channel.

Blue green algae can produce toxins that are harmful to people, pets, livestock and other animals. Blue green algae outbreaks have occurred in reservoirs found in western Oregon. However, not all reservoirs are monitored for blue green algae leading to increased public health risk. (see Oregon Department of Public Health)

High levels of arsenic have been found in the South Santiam basin (see USGS Water-Resources Investigations Report 98-4205). While municipalities treat raw water to assure it is safe for consumption, not all water consumed by people is treated. For example, Linn County Health Department found wells in Sweet Home with high arsenic levels. Due to lack of financial resources, not all residents can afford to hook up to city water and rely on wells. Also, not all wells have an “inhome” treatment through appropriate filtration. (also see Linn County Health Department, 1987 well study)

An accidental contaminant spill into the South Santiam River, reservoirs or tributaries could potentially threaten the drinking water for over 75,000 people. The OR DEQ published “Source Water Assessment Inventory Results as of June 2005 for Potential Contaminant Sources (PCSs) identified in Oregon Drinking Water Source Areas (DWSAs) for Community and Non-transient Non-community Public Water Systems” in 2005. It includes numerous sites in the South Santiam, but it is outdated and incomplete. There are numerous sites that should be on the list as a potential source of a contaminant. Also, the route (and relative risk of a route) that a contaminant could take to enter the water source has not been identified. For example, are some road stream crossings more susceptible to an accidental spill? If so, those sites should be identified. In the study the DEQ states (direct quote): *Communities are encouraged to "enhance", update and refine the State's Source Water Assessment results (including the delineation of the sensitive areas and the identification of the potential contamination sources) through further research and local input as they move forward in developing protection strategies.*

Ecological Health

The South Santiam has populations of winter run steelhead and spring chinook, both of which are ESA listed species. Numerous projects have been implemented which aim to increase the quality of the instream and near stream habitat for these fishes. However, there is much to be done. The South Santiam and its tributaries suffer from extensive degradation due to changes in land use as the area was settled within the last 150 years. Stream channels are often incised, lack complexity, lack instream wood, have been

scoured to bedrock, have been straightened, lack side channels, have limited interaction with the flood plain and have a degraded riparian area. Collectively these changes exert a negative influence on the aquatic ecosystem. For example, a straightened and incised channel does not retain nutrients or stream gravels effectively. A lack of interaction with the flood plain does not allow the stream to expand over its banks to distribute energy, nutrients and substrate. Instead, materials are flushed through the system at an accelerated rate and erosive energy is focused in the narrowed channel exacerbating incision. A fully functioning river is able to interact with the floodplain, depositing and distributing erosive energy, substrate and nutrients. Slowing the release of stream waters through the basin helps to recharge local ground water. A fully functioning stream channel with side channels and connection to the floodplain is beneficial to numerous stream fishes. Riparian forests assist with filtering nutrients from agricultural runoff, help slow the rate of warming of the water body and prevent excessive erosion by holding the stream banks in place with roots.

E Proposed approach

The proposed approach will follow steps outlined in the OWRD Place based Planning Guidelines.

Planning Step 1

The scale of the project has been defined as the South Santiam basin (HUC #17090006), with consideration of those communities (e.g. Albany and Sodaville) that occur outside of the basin yet rely on waters originating within the South Santiam basin. A process to convene stakeholders has started with the initiation of SSALC (formerly SHALC), a voluntary group of diverse stakeholders across federal, state, county government, non-profit, local city government and private landowners. The group has a formal charter to work together on land management and other activities with commonalities across the groups. Other organizations will be actively encouraged to participate, such as the Army Corp of Engineers, Oregon Water Resources Department, ODFW and others. The role of the convener and participants will be defined at the outset of the process in order to clearly define expectations and responsibilities of the participants.

Planning Step 2

A review of existing data will help identify data gaps in the South Santiam. Some existing studies are known and may shed light on other avenues of need. The planning step will evaluate existing and future needs of residents within and adjacent to the South Santiam basin, who rely on South Santiam basin water. Recent research has indicated that, in the Santiam basin as a whole, water demand exerted a strong influence the Santiam basin's sensitivity to the scarcity of water resources (Mateus, Cristina, Desiree D. Tullos, and Christopher G. Surfleet, 2014. Hydrologic Sensitivity to Climate and Land Use Changes in the Santiam River Basin, Oregon. Journal of the American Water Resources Association (JAWRA) 1-21. DOI: 10.1111/jawr.12256). Studies by the OR DEQ evaluated Potential Contaminant sources, but the study is outdated. It is unknown if

there is an updated plan in place that provides a course of action, in the event of a contaminant spill. The North Santiam Basin has a working Emergency Response Planning document and process which could be used as template for the South Santiam.

Planning Step 3

Evaluate the South Santiam as a water producing basin for multiple needs. Currently drinking water is provided to communities inside and outside of the basin (e.g. Albany and Sodaville). In 2015 Sodaville, which is reliant on local ground water from outside the Santiam basin, had to purchase water from Lebanon which secures water from the South Santiam river. What are the demands / needs for those outside of the basin given the uncertainties of a changing climate? It may be necessary to reevaluate projected water needs of the basin. The South Santiam is a basin has populations of winter steelhead and spring chinook, both ESA listed species (see Willamette Subbasin Plan). Reservoir operations must balance the needs of out of stream as well as in stream uses such as fish runs. Changes in rainfall or snow patterns may affect reservoir operations. Balances must be struck between the potentially conflicting uses and a planning strategy could help. Hazards to the South Santiam come from climate change, invasive species, contaminant spoils into the reservoir and or rivers. Risk assessment of the threats to the reservoir and the basin would be of assistance.

Planning Step 4

A suite of solutions will be necessary to address the known problems known or those identified in the planning process. Solutions must be as diverse as the problems and new ways to address the problems should be explored. Activities that can be discussed as potential solutions include increased efficiencies, alternate reservoir scenarios, watershed restoration, instream flow protections, water quality protections and monitoring.

Planning Step 5

Plan adoption and implementation are the final steps and as important as the planning process. Writing a management plan and executing the management plan are 2 different activities, each with its own set of pitfalls. It is very important to ensure that the plan that is written is actually followed by the participating stakeholders.

F Anticipated Results

Place based planning will identify the challenges facing the South Santiam basin and users as well as provide a pathway to address the issues. Part of the process is to identify and communicate the challenges to the numerous stakeholders. Not all solutions may come from the plan and some factors are out of the control of the participants (e.g. climate change). However, providing high quality information that can be used to inform decision making by the stakeholders is valuable.

The short term results or benefits include building upon existing collaborations, raised awareness of the issues, and identification of possible strategy(ies) to address the issues. The long term benefits include an accepted way forward for addressing issues that have

Place-Based Planning Letter of Interest - Eric Andersen, South Santiam Watershed Council

been identified in place based planning effort. This grant may be leveraged to secure additional funding to build on the projects and/or needs identified in this process.

Because this is a pilot program, it will be a learning experience for this group, as well as others around the state. Place based planning that initiates after the pilot program will have the advantage of studying the successes and challenges of the pilot basins. Also the OWRD will be able to learn from the pilot program and be able to assist future basins more fully as well.

G Request for Department resources

Budget

Funding Source Partner and contribution	Cash	In-Kind	Secured	Pending	Amount/Value
OWRD financial	\$150,000			x	\$150,000
Partners:					
MMT		\$5,000	x		\$5,000
OWEB		\$50,000	x		\$50,000
SSALC		\$100			
OWRD planning		\$10,000		x	\$10,000
OWRD Technical assistance		\$10,000		x	\$10,000
OWRD Information assistance		\$10,000		x	\$10,000
Total					\$235,100