

North Santiam Joint Sewer Project



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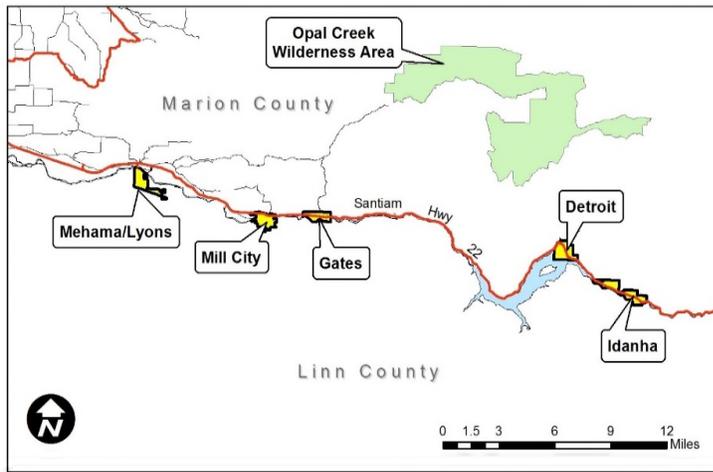
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Project Executive Summary



Map of the communities along the North Santiam River, Oregon

The purpose of this report and analysis is to identify a specific pathway for the implementation of the North Santiam Joint Sewer Project. The North Santiam River is a pristine watershed and primary water source to more than 200,000 individuals and serves as the central economic driver for the entire region. The wastewater solution selected for this region must be geologically suitable, environmentally sustainable, financially feasible, and politically

viable for each of the rural Oregon timber communities of Detroit, Gates, Idanha, Mehama/Lyons, and Mill City now and into the future. As none of these cities independently have the financial capacity to take on a large scale wastewater project for their own cities, it is imperative that they act collectively to formulate, advocate, and fund a larger key infrastructure project. Funding of this project can occur by leveraging the diverse economic development, infrastructure, water protection, clean drinking water, and economic resiliency dollars from local, county, state, federal, and foundation dollars to address the long standing wastewater needs of these cities. It is anticipated that a regionalized wastewater approach will enhance the opportunities for grant and loan funding which minimizes the long term financial impact to individuals, rural entrepreneurs, and city budgets. This approach is expected to enhance the region's sustainability, resiliency and long term economic prosperity.

In forming a plan to address the regional wastewater concerns, three distinct issues must be overcome for success in this project.

1. **The Environmental** and public health concerns must be addressed to find a water source protection solution is better than the current trajectory of in-action and reduce the potential health impact of widespread septic tank failures. This includes engaging water source protection advocates to aid in the crafting of a potential modification to the Three Basin Rule (OAR 340-041-0350) that allows for the highest level of protection that can be financially maintained by these low income rural communities.
2. A **Cultural** change must be accepted by the North Santiam communities to allow for the local governance of another governmental entity (sewer district). Once formed, then

the community must consent to properly resource a collective sewer district through affordable user fees as required for funding at 1.4% of the regional Median Household Income (MHI) of approximately \$40-\$50/a month per equivalent dwelling unit.

3. Collectively the **Financial** capacity of these communities is limited and any construction project or operations and maintenance costs must be contained to a sustainable level of no more than \$50 a month in user fees for the first few years of service. The cost and complexity of a wastewater project in this unique region will only inflate if the projects are delayed, creating a greater financial burden. Time is of the essence.

Marion County is the best positioned to assist in the viability of this important project by committing financial, legal, advocacy, and human capital resources over the next three years while a sewer district is being formed. It is expected this project will require from Marion County staffing resources of 1.0 FTE Project Manager, .5 FTE Grants and Contract Specialist and .5 FTE of other administrative support plus an approximated \$500,000 for two project engineering and design studies, matching funds, and some support expenses such as the development of an independent website dedicated to this project. Grant funding for staffing may be available to offset the staffing costs for the project leadership and administrative support.

Advocacy with federal, state, and downstream users will be an integral part of Marion County's contribution to this project. The communities included in this project do not currently have the human capital or legal expertise to complete the required provisions to form a sewer district and then advocate with city, state and federal partners. Marion County is best positioned to the project as they are an essential driver for this project to come to fruition. To effectively utilize this plan, the individual cities need to take the initial step to request, by city resolution, Marion County form a sewer district that includes their community and alongside the other cities in the North Santiam region.

General Project Timeline

Short Term (six months): A project plan of action, which includes a pathway to legal entity status, stakeholder mapping, decision modeling, general timeline for project, potential financing options, and city resolutions from each; Detroit, Gates, Idanha and Mill City that specifically request the formation of a sewer district by Marion County, legislative/regulatory advocacy and the negotiation with Salem to institute a water source protection fee to ensure the wastewater project can be accomplished

Mid-term (1-3 years): Engineering and design studies, the formal binding of the sewer district to create joint financial and operational responsibility, advocacy, a commitment to a legal governance structure, the securing of permitting, loans, grants, and fees to fund phased project costs of an estimated \$39-\$59 million

Long-term (4-8 years): Project prioritization, capital construction of project components, financial and contractual negotiations of agreements, the selection of a leader of the locally governed North Santiam Joint Sewer District Board, Marion County hands off responsibility of the project to local board for ongoing governance

Introduction

While the overall economic picture in Marion County has much improved in recent years, the rural North Santiam River communities of Detroit, Gates, Idanha, Lyons/Mehama, and Mill City have experienced more than 25 years of economic distress spurred by the collapse of a once vibrant timber economy. These communities reside along a pristine North Santiam River in a narrow canyon on Oregon Hwy 22. Beginning in 1990, these rural timber communities in Oregon found themselves financially and geographically constrained by the habitat protection of the Northern spotted owl under the Endangered Species Act. This act was followed by a series of additional federal forest management acts which significantly curtailed the dominant and lucrative local natural resource industry, timber. In 2000, a \$15 million recovery package was approved by the U.S. Congress to help offset some of the region’s loss in their primary local industry as a result of the changes in federal policies. The North Santiam Economic Opportunity Study was completed and submitted to federal regulators as a plan for the distribution of the aid, but the money was never appropriated by the U.S. Congress and the promised funds never matriculated. This unfulfilled \$15 million promise to the communities has contributed to a local perception that they are alone as the stewards of the land and water and they shoulder the burden without the ability to grow their economic base with the constraining land use rules. By year 2021, the current value of the recovery package would be approximately \$27.1 million.

Starting Investment	\$15,000,000.00
Number of Years	20
Growth Rate	3%
Total Interest Accumulation	\$12,091,668.52
Future 2021 Value	\$27,091,668.52



Mill City Bridge between Marion and Linn Counties, Oregon

In 2014, in an attempt to help the long term economic opportunities in these communities, The Mid-Willamette Valley Council of Governments updated the original 2000 study and further explored the needs of the distressed rural timber communities in the North Santiam River region. The report provided focus for state and county officials as it highlighted the need for repair and large scale investments in

basic infrastructure. Infrastructure development was cited as the primary discouraging factor to locating or expanding businesses in this naturally beautiful area. The report also detailed critical infrastructure gaps within the North Santiam Canyon communities such as transportation, internet access, employment opportunities, Brownfields mitigation, and water/wastewater

infrastructure. Water and wastewater infrastructure have become increasingly cost prohibitive to repair and maintain in this region, as it is complicated by the dynamic geology of the region, the local politics, wastewater effluent rules, and the permissible land use policies in the state. The lack of and deteriorating nature of the current infrastructure assets coupled with a diminished population and subsequent reductions in tax receipts have denied these communities the underlying financial resources needed to make the vital long term investments in key economic development areas.

Surrounded by federal, state, and local forest lands, the organic and traditional concentric circle model of growth that is enjoyed by most urban areas is legislatively inhibited in these communities. These cities are finding it difficult to provide the basic infrastructure luxuries of urban living, such as a city-wide sewer services. Important economic pillars of the communities shuttered as there were no reasonable permissible options left for handling wastewater on such small lot sizes. Essentially, the advances in the technological understanding of water source protection has outpaced the ability for these communities to respond in their lot size and arrangements, again which is a



North Santiam River at Detroit Dam, Oregon

consequence of being constrained by their ability to grow in this geographic locale. As the stewards of the surrounding forest land and water in the North Santiam River, these residents bear the burden of protecting the primary water source for urban and suburban down-stream users in the surrounding area of the Oregon's state capitol city, Salem.

From the previous reports, Marion County offered to assist these communities to provide economic resiliency through infrastructure development as it is the underlying foundational base for rural economic development. The highlighting of the plight and the targeting of these communities for resource allocation allows for the leveraging of diverse public and private resources to spur complimentary economic investments. The regional approach focuses on basic infrastructure for water, sewer, broadband internet, health, employment, housing and transportation and allows for sustainable protection of the rural lifestyle these communities desire.

The North Santiam Joint Sewer Project is as complex as it comes; land use, conservation, stewardship, financial sustainability, political viability, water rights, change management, diversity of stakeholders, legal entity establishments, integration of multiple levels of government, communication strategies, legislative relations and regulatory rule revisions, constraints of land availability, and the desire of communities to grow under their own volition.

The project outlined in this report is intended to provide a pathway for joint wastewater services in the cities of Detroit, Gates, Idanha, Lyons/Mehama, and Mill City, along the pristine North Santiam River in Marion County, Oregon. The long term goal of the project is to implement sewer solutions that are geologically suitable, environmentally sustainable, financially feasible, and politically viable which provides a water source protection, employment diversity, private economic investment and economic resiliency in the region along the North Santiam River.

Cultural Change

Since 2002, numerous studies have detailed the sewer development needs of these communities and have unequivocally determined the lack of a regional wastewater solution is significant an economic detractor. The communities have limited city resources due to dwindling full time population and tax averse residents who are generally wary of government intervention. Previous attempts by Detroit and Idanha to create an agreement to tackle a sewer project fell flat as the drive was happening from the federal and state agency levels, local buy-in was rushed and never fully fostered. There were hurt feelings and accusations of betrayal among the cities and it caused a rift and created a failure that now must be overcome.



North Santiam Watershed, Oregon

PROJECT COMPONENTS The project outlined below is a for joint wastewater services in the cities of Lyons/Mehama, Mill City, Gates, Detroit and Idanha, along the pristine North Santiam River in Marion County, Oregon. In forming a plan to address the regional wastewater concerns, I have identified three distinct issues that must be resolved for success in this project.

1. *Environmental* and health concerns must be addressed to find a water source protection solution that is better than the current trajectory of in-action and reduce the potential health impact of widespread septic tank failures¹

¹ *Household Wastewater Treatment including Septic Systems*. Cornell University Extension Services. (July 2017) <http://waterquality.cce.cornell.edu/septic.htm>

2. *Cultural* change in the community and downstream users as well as a willingness to properly resource wastewater solutions
3. *Financial* options to make the project construction viable and the long term operations and maintenance cost to a sustainable level for these low income communities



City of Idanha, Oregon

If a wastewater solution for the region could be instituted, under-utilized industrial and commercial lands could be developed and provide much needed jobs to these communities. Furthermore, eager potential and current business owners along Highway 22 in the region as well as local mayors are clamoring for assistance from Marion County to assist in finding a solution. Ideally, the project would be wholly funded through grants and financially sustainable in the long run,

without ever raising local taxes or user fees. There is a distinct disconnect between the desired solution and the willingness to properly resource a wastewater solution. Businesses in Idanha and Detroit have portable toilets outside of the businesses in fear that their current septic capacity is insufficient to meet the high demand expected during peak recreation season. Their concerns are well founded.

PUBLIC HEALTH CONCERNS

At this time, there are no official water violations but there is evidence that an urgent problem is brewing with the current septic systems that dot the region. With the aging infrastructure that is known to be within the ground today, it is inevitable that in a few short years health concerns will likely rise. In the last 10 years, three outbreaks and advisories were issued in 2007, 2015,



Portable Toilets in Downtown Detroit, Oregon

and most recently in 2017 of blue-green algae blooms that could cause lethal health hazards in the North Santiam watershed. The Oregon Health Authority advises that blue-green algae “bloom formation seems to be linked to nutrient-rich water bodies (those influenced by animals and people where phosphorous and phosphate containing compounds such as fertilizers are used)” which in some cases is due to inefficient wastewater management. Recently, reports are rumored that at least one of the local restaurants had septic backup into their business over a recent busy weekend. This problem is further evidenced by the existence of portable bathroom facilities next to stores and restaurants as they cope with the lack of wastewater processing throughout the region. ²

As stewards of the surrounding forest land and water in the North Santiam River, these residents bear the burden of protecting the primary water source for urban and suburban down-stream users in the surrounding area of the Oregon’s state capitol city, Salem. This land and water stewardship comes at a current estimated price tag of \$97 million. That cost is insurmountable even under the most ideal circumstances paid for by less than 4,000 residents throughout the 50 mile in the region. Downstream users, water source protection advocates, federal, state, county and city partners must provide technical, advocacy, and financial resources in order for this project to be fully implemented and sustainable.

LOCAL COMMUNICATION Effective communications tailored to promote local and regional buy-in on this project will need to occur often and in depth. A network diagram of stakeholders and a community lead force field analysis of the anticipated positive and negative attractors will be important to discuss with community members and downstream water users. Communications should inform residents of the decision points along the way to help create celebratory milestones towards the defined sewer solution. Talking points for elected officials, residents, partner agencies and downstream users may need to be drafted to align the narrative towards a solution that is political viable. Managing expectations about the length of time necessary to craft, codify, and implement this project will be imperative as many issues need to be thoroughly researched and resolved which may give the appearance of inaction. To keep the stakeholders engaged and motivated to succeed, communications should highlight the “wins” experienced by the community by detailing the number and value of grants and funding that have been directed to the North Santiam Region in support of their community and economic development efforts. While that is the overarching goals of this project is public health and economic development, these communities have a differentiated level of capacity that drives

² Oregon Health Authority. *Algae Bloom Advisories*, http://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RECREATION/HARMFULALGAE/ALGAE_BLOOMS/Pages/Blue-GreenAlgaeAdvisories.aspx

their own projects. Since 2015, the total amount has been more than \$13 million to the region. Reminding the community of their role in securing funding for their projects and implementing their strategies creates local capacity and visual reminders of their own success. This success breeds additional success which anchors the cultural changes in the communities. When progress and successes are highlighted in the community, it solidifies the change which leads to greater resources to sustain the remaining efforts.

This project will be plagued by starts and stops and will likely lose momentum, but the local champions and stakeholders will need to help look for alternative successes in the communities to offset some of the challenges that lay ahead. Identifying the right local champions is imperative as they must be willing to be an active advocate for their city's needs and desires, keep their local city leadership and community members apprised, and solicit diverse feedback from community members over the coming years.

Environment



Store in Idanha, Oregon utilizes portable toilets to serve customers

BUSINESS ENVIRONMENT

Visitors to the North Santiam River region want to come to visit, recreate, and spend money, but with that comes additional human waste that must be properly disposed. With increased recreational visitors that double the population of the region during the high season, the nexus between wastewater handling and water quality is on a collision course under the current

trajectory. In Detroit, Gates and Idanha, businesses cannot handle the current wastewater needs and have resorted to utilizing portable toilets to serve their customers. This is an unsustainable and costly option for those business owners and only provides a short term remedy and does not provide adequate protection of the watershed habitat or to the individuals who rely on the health of the water within the river, such as downstream water users in the City of Salem.

MUNICIPAL WASTEWATER SERVICES At this time, the communities of Detroit, Gates, Idanha and Lyons/Mehama do not provide municipal wastewater treatment services to their residents. Residents are required to obtain proper permitting from the county in order to operate

individual septic systems, comply with the effluent requirements for the size of the structure, use of the structure, location of the structure on the property, and the local soil characteristics for each successful permit. Residents carry the burden of installing maintaining repairing and replacing their septic systems which has led to a disjointed and varied level of protection for the local watershed depending on the financial capacity of their ability to properly maintain their septic systems. An estimated price tag for a replacement septic system can range from a low of \$7,000 to a high of \$26,000 which could be of significant burden to the families who live in these communities. It is anticipated that as the individual septic systems and tanks age they are more likely to fail due to delayed or inadequate maintenance. This would affect the pristine nature of the North Santiam River as many homes reside along the river. This watershed serves as the primary water source to more than 200,000 downstream water users.

In the region, the City of Mill City did install a Septic Tank Effluent Pumping (STEP) sewer



North Santiam River in Mill City, Oregon

system in 1992 and they continue to service debt from their initial sewer installation and the upgrades that were made in 2008. Mill City officials anticipate major upgrades and costly repairs are expected in the coming years as they increase their utilization of surrounding industrial lands. A regional wastewater solution could also be of significant benefit to the City of Mill City even though they currently have a sewer system. If a sewer district could be formed by Marion County on behalf of these

cities, Mill City's wastewater debt would likely be assumed into the sewer district debt, freeing the city from that debt burden in exchange for the current infrastructure and expertise of the staff

THREE BASIN RULE Regulated wastewater discharge comes through Oregon Department of Environmental Quality (ODEQ). In the North Santiam Canyon Regional Wastewater Analysis, Keller Associates reported the Three Basin Rule (OAR 340-041-0350), was adopted in 1978 and modified in 1995 for the Clackamas River, the McKenzie River and the North Santiam River Subbasins to prohibit the discharge of wastewater to the surface water of the rivers. The Three Basin Rule will likely require a modification, variance, waiver or revision in order for the communities along the North Santiam River to afford a wastewater solution that properly mitigates the potential and inevitable health impacts of widespread septic system failures within feet of the North Santiam River Subbasin. The Three Basin Rule disproportionately affects rural Oregon economies that serve as the stewards of the water source as this rule has an unintended

consequence of inhibiting economic and population density growth in these communities constraining the tax receipts for the cities. At the time of the study, Keller Associates reported that discussions with the ODEQ revealed that wastewater Water Pollution Control Facility (WPCF) permits were issued to the Eugene Water & Electric Board's Operations Center in one of the areas of the regulated under the Three Basin Rule. The discussion between ODEQ and Keller Associates provides an avenue to potentially reduce the cost of a wastewater solution for the North Santiam communities and thereby increasing the likelihood of a successful project.

Marion County and Business Oregon commissioned the North Santiam Canyon Regional Wastewater Feasibility Study and the report estimates the cost for the necessary regional wastewater systems and approximately \$97 million for the communities of Detroit, Gates, Idanha Lyons/Mehama, and Mill City. The steep price tag for these communities was due in part to the Three Basin Rule. Further, the study estimates that compliance with the Three Basin Rule at approximately \$18 million or 20% of the total cost of the project. The North Santiam Canyon communities require an avenue to reduce the cost of a joint wastewater project, which has been granted to other watersheds under OAR 340-041-0350. This is not unprecedented in relation to this Oregon Administrative Rule, in fact waivers have been provided to municipal white wastewater districts in such case as the Springfield Metro Wastewater District. If a modification, permit, or waiver is not allowed for the North Santiam River, this will make any new wastewater project nearly impossible to fund through grants, loans, and user fees at a level that is affordable and sustainable. This project is essential to the long-term health of the North Stadium River for all water source users. The Three Basin Rule is a shared concern among the local stewards of the lands and waters as well as to downstream water users.

As the regulatory requirements increased on the stewards of the watershed, so did the cost of a wastewater solution for the North Santiam River region. The high cost of a wastewater solution that fully complies with the rule is a social inequity faced solely by rural communities for the benefit of downstream users as the sheer cost is the primary reason a wastewater solution has not been implemented in this region to date. A measure to revise, modify or waive the Three Basin Rule, could be crafted alongside the North Santiam Watershed Council, the City of Salem and other downstream water users as they have a vested and financial interest in protecting the health of the watershed as it is their primary water source. According to Keller Associates, a regulated local disposal of Class A treated recycled water would minimize the cost to local users. In their report, a sewer solution would also provide greater protection of the watershed than what is currently available as a managed wastewater collection and treatment reduces the likelihood of failure or hazardous wastewater discharge.

Financial Analysis

In January 2017, the North Santiam Regional Wastewater Analysis was completed on behalf of Business Oregon and Marion County by Keller Associates in Salem, Oregon. The study was commissioned to determine the available options for the potential construction, operations, and governance of a regionalized wastewater solution for the North Santiam communities of Detroit, Gates, Idanha, Lyons/Mehama, and Mill City. The Keller study was accompanied by a commercial and industrial lands inventory and GIS mapping component to aid in the identification of potential suitable locations for wastewater operations and sewer lines. The North Santiam Canyon Regional Land Inventory was conducted by Maul Foster & Alongi in Portland, Oregon.

The Keller study recommended an immediately permittable wastewater solution with an estimated construction cost of \$97.3 million for three alternative and dispersed collection, treatment, and disposal systems. The systems would provide a consistent and professionally managed wastewater solution as an additional layer of water source protection to more than 200,000 downstream water users and provide a platform for economic development efforts in the region along the North Santiam River.

To reduce the overall cost of the project, the City of Lyons and the Mehama area have been removed from the subsequent financial calculations and discussions at this time. Future inclusion of these communities into a neighboring sanitary district is possible and recommended, but cannot be entertained at this time with the currently available resources. Should overwhelming financial resources be provided, inclusion of the City of Lyons and the Mehama area is preferable. With this modification to the plan and based on the North Santiam Regional Joint Wastewater Study, the revised cost of the project would be an estimated \$59.1 million. Complete financial evaluation will be necessary once a wastewater asset type is selected and the cost of the wastewater solution is determined to ensure long term further affordability.

CRITICAL FINANCIAL SUCCESS FACTORS In analyzing the project viability, several critical financial success factors must be overcome in order for the North Santiam Joint Sewer Project to move forward to the next project phase.

Identified critical financial success factors:

1. *Reasonable Affordability*- Determination of a residential maximum monthly user fee based on median household income

2. *Septic v. Sewer Costs*- Identification of the cost benefit to individual users to pay \$40-\$50 a month towards a locally led regional sanitary authority for sewer services
3. *Three Basin Rule*- Identification of the cost differential and financial burden of construction, operations and maintenance cost under the Three Basin Rule (OAR 340-041-350)



Detroit Flats at Detroit Lake, Oregon

4. *Borrowing Capacity*-Solidification of the debt limits that can be adequately serviced by a sanitary district for capital construction
5. *Grants and Direct Appropriations*- Determine types and the availability of grants and direct appropriations of funds for an engineering and design study, capital sewer construction, sanitary district authorization, implementation, and the onboarding of board members
6. *Overall Financial Constraints*- Creation of an action plan and funding sources for short, mid, and long term capital investments that include diverse stakeholders, tangible outcomes and a compelling narrative for grant and appropriations requests

REASONABLE AFFORDABILITY The United States Department of Agriculture Office of Rural Development is one of a handful of government agencies that provides sizeable competitive grant and loan funding for large scale water and wastewater projects throughout the country. Typical federal and state non-appropriated grants and loans require user fees at 1.4 percent of the median household income (MHI) to qualify for taxpayer funded capital assistance. The user fee is calculated by the most recent U.S. Census Bureau median household income estimates, averaged among all the areas included in a servicing district. The City of Idanha recently requested and was granted a downward revision of their median household income calculation. This request has proven worthwhile as it has pushed the regional median household income average down to an estimated \$43.70 for user fees for a potential sewer system. The North Santiam communities in the region have a median household income is approximately 27 percent lower than the state of Oregon as a whole. The low income status of this region allows

for favorable grant and loan terms than if they were to request funds individually which provides an immediate cost saving during borrowing.

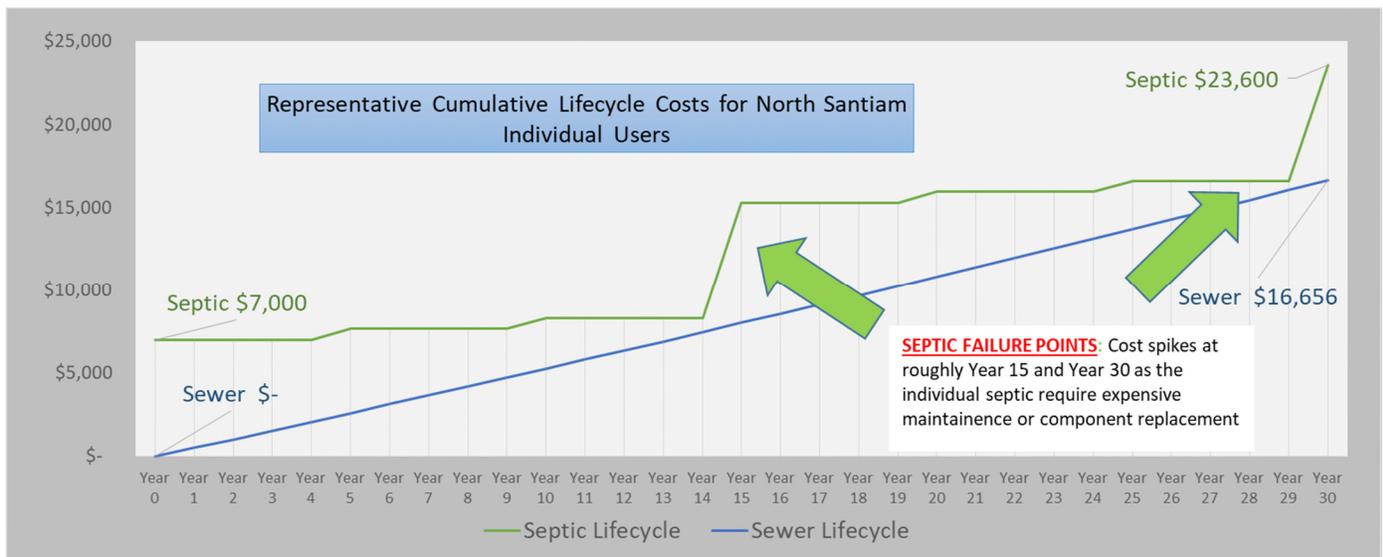
	Detroit	Gates	Idanha	Mill City	Local Average	Oregon Average
2011-2015 Median Household Income (MHI)	\$44,792	\$36,875	\$29,464	\$38,689	\$37,455	\$51,243
1.4 percent Annual Sewer Rate Target Maximum (USDA)	\$627.09	\$516.25	\$412.50	\$541.65	\$524.37	\$717.40
Monthly Avg. Cost to Residential Consumer	\$52.26	\$43.02	\$34.37	\$45.14	\$43.70	\$59.78
MHI Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates						

Median household income affordability estimates

RESIDENTIAL COST SEWER V. SEPTIC

Through a series of surveys and in interviews with local residents, the anticipated high cost of a potential sewer system has been identified as a primary driver for much of the local opposition to this project. This perceived cost differential is merely a perception and not the reality for many of the local residents. According to the wastewater specialists with the Oregon Association of Water Utilities and Marion County, estimates for a local septic installation and maintenance is approximately \$7,000 with residential users expected to pump their septic systems at roughly 5 year intervals. Adding in the investment to maintain a healthy drain fields as recommended every 15 years adds additional cost that is bore by the user. Many residents cannot afford to maintain, repair or replace their septic systems creating a greater chance of wastewater discharge and the likelihood of water source contamination. When septic and sewer fees at \$44 a month are calculated side by side over a thirty year period, the estimated \$44 monthly average user fee, including a half percent increase in user fees annually, is less than the cost to install and maintain an inexpensive septic system over the same time period. The septic cost is estimated at \$23,600

over 30 years and a sewer system with user fees starting at \$44 and building to \$50 a month would be \$16,656 over the same period.



Local residential estimated cumulative life cycle cost of septic system v. sewer system over 30 years. Sewer estimates includes annual increase in users fees of .5 percent.

THREE BASIN RULE (OAR 340-041-350) REVISITED At the revised and estimated project cost of \$59.1 million, The North Santiam Joint Sewer Project would not be financially feasible for this low income rural population. It is anticipated that a revised, lower cost wastewater solution is possible if a modification of the Three Basin Rule includes a surface level discharge or a regulated and cooled Class A water discharge into the North Santiam River Basin. According to the Keller study, a modification such as this could potentially reduce the overall capital construction cost by up to 20 percent of the overall project cost of \$47.2 million. If a modification of the Three Basin rule could be implemented and the modification fulfilled the expected cost reduction the range of grant or direct appropriation necessary would be reduced to an estimated range

Idanha- Detroit	Estimate of Capital Costs
Collection	\$18,500,000
Treatment	\$6,100,000
Disposal	\$5,100,000
Mill City-Gates	
Collection	\$11,700,000
FM-Mill City- Gates	\$4,000,000
Treatment	\$6,190,000
Disposal	\$7,500,000
Total Estimated Construction Cost	\$59,090,000
20 percent potential cost reduction with Three Basin Rule Modification	\$47,272,000

Cost estimate of "Three Basin Rule" on the North Santiam Joint Sewer Project

of \$38.8 million to \$42.8 million. This cost reduction greatly increases the ability for the project to obtain capital construction costs that are offset by grants or direct appropriations investments by county, state, and federal agencies. Discussions with representatives from the Oregon Department of Environmental Quality have indicated there may additional opportunities to lower the cost through alternative wastewater solutions which could be permitted under the current regulatory conditions, but that a complete engineering design study would need to be completed to fully evaluate whether or not a National Pollutant Discharge Elimination System (NPDES) permit review would need to occur and if the project plan would fully comply with the Three Basin Rule. Buy-in and support from the North Santiam Watershed Council and downstream water users, such as the City of Salem, will be imperative to reduce the overall cost of the project to a sustainable level operations and maintenance.

BORROWING CAPACITY Under ORS 450.120, sanitary districts cannot incur debt that exceeds thirteen percent of the real market value of all the taxable property within the district. For the identified communities, this provision would cap the debt maximum to approximately \$31.6 million in total borrowing capacity. While the maximum debt provision may allow for the financing of over half of the overall project costs through borrowing, it is not recommended for these rural communities. When considering the low population density of these communities and the potential for a negative deviation in the precarious employment environment, minimizing the long term debt incursion is not only recommended but is an essential piece of the financial model.

As previously indicated, the income status of the communities along the North Santiam River are 27 percent below the state median household income level. Utilizing the 1.4 percent affordable residential rate a user fee of \$44 per equivalent dwelling unit for the approximate 2,500 properties would yield an annual estimated value of \$1.32 million for operations, maintenance, governance, and savings toward long term capital improvements. Depending on the sophistication level of the wastewater solution required for the region, the cost of operations, maintenance, governance, and the savings necessary for long term capital expense upgrades, can consume anywhere from 60 to 80 percent of the total annual collected user fees. This would leave little for further debt servicing and is not advisable. Borrowing to a limited payback period could better align the debt servicing with the generally accepted usable life of the



Roadside Restroom Serving Business Customers in Idanha, Oregon

main operational components of a wastewater system and offset the re-investment shock that occurs prior to the traditional 40 year infrastructure loans are paid in full. For example, Mill City took out a 40 year loan to make the initial investments in their initial phase of sewer services. To date, more than \$4 million of debt remains, they have little long term savings, and necessary upgrades are quickly approaching on the horizon. The length of the debt is currently limiting their ability in making further investments.

If the North Santiam Joint Sewer Project was limited to a payback of to 25 years, the maximum debt that could be serviced with the monthly residential user fees of \$44, is between \$4.5 million to \$8.5 million. If a sewer district were formed, ideally Mill City's debt would be rolled into the debt of the district to pay for the current infrastructure that is already installed and can be used to service other areas of the district which would reduce the new debt capacity. The low and high range estimates of debt carrying capacity is calculated on the assumption that debt servicing is expected at a minimum of 20 percent (low) to maximum 38 percent (high) of the estimated annual total collection of user fees. The high range debt servicing is only recommended if a down-stream water source protection fee could be contributed into an investment fund accessible solely for long term capital intensive wastewater component upgrades and capital construction.

GRANT AND DIRECT APPROPRIATIONS As previously noted, for the North Santiam Joint Sewer Project to be fully implemented, diverse and significant grant and appropriations funding from the county, state, and federal agencies will need to cover an estimated range of 82 percent to 92 percent of the initial capital construction cost estimated to allow for the short and long term affordability of the sewer user fees. No one entity is expected to have the resources to cover the \$38.8 to \$54.6 million necessary to fully fund the implementation of this project. If a wastewater solution can be completed in phases, there are opportunities for multiple financial awards over time. Potential funding resources are attached in the Appendix C of this report as a funding starting point.

OVERALL FINANCIAL CONSTRAINTS The potential for a water source protection fee imposed by down-stream communities to aid in the long term health of the North Santiam River could net the long term success of this project. A \$2 a month water source protection fee from the 47,000 equivalent dwelling units in the City of Salem, in an investment fund with a 3 percent net investment rate over a twenty year period could provide the North Santiam Joint Sewer District more than \$17.5 million for future necessary upgrades, enhancements, and technology investments without significant additional borrowing at that time. If this downstream user fee is not instituted, the debt servicing capacity and range would need to be at the lowest range of the annual debt servicing of no more than 20 percent of the annual user fee collection. This would leave little money to invest in the long term sustainability of the intended water source protection project by the low income communities along the North Santiam River. The future cost of

wastewater infrastructure is expected to rise exponentially the longer time passes. The water source protection fee is intended as a low cost upfront investment to the project’s initial completion and then to endow a fund which increases the likelihood of these communities could afford timely upgrades and minimize the risks to water users.

Project Financial Constraints						
Range Estimate	Maximum Sewer User Fee		Maximum Debt Outlays for Capital Construction			Value of Potential Water Source Protection Fee
	End User Fees 1.25 percent to 1.4 percent MHI*	User Fee Annual Estimated Value	OAWU Estimate Range for Annual Debt Servicing of 20 percent-27 percent	Recommended Max Range for Annual Debt Servicing of 35-38 percent**	Recommended Debt Capacity Limit	Estimated 20 Yr. Value of Endowed Water Source Protection Fund***
	Low	\$39	\$1,169,064	\$233,813	\$409,172	\$4.5 million
High	\$44	\$1,309,352	\$315,647	\$497,554	\$8.5 million	\$17.5 million
<p>* Estimates are based on the assumptions that Detroit, Gates, Idanha, and Mill City will participate in a joint project and incomes remain flat.</p> <p>**Recommended amount by OAWU is 20-27 percent of annual user fee collection for debt servicing which would include a long term capital investment fund. Available debt servicing amount is higher on this recommendation based on expected endowed water source protection fund for long term capital investments.</p> <p>***Estimate is for illustration only of the potential value of an endowed Water Source Protection Fund.</p>						

Financial constraints for North Santiam Joint Sewer Project to be sustainable.

Recommended Blueprint for Action

Recent demographic changes in these communities and the emergence of designated rural infrastructure development funding offers a window of opportunity to provide a large scale regional wastewater solution for these communities. A sustainable wastewater solution should honor a local governance structure model, protect the North Santiam River from contamination, and be affordable enough the water source protection level can remain high.

Currently, the cost of a permittable wastewater solution that complies fully within this regulatory environment for the North Santiam River is far out of the financial range of these communities. As the stewards of the water and the forests, the residents are bearing the burden of downstream drinking water user's access to pristine water sources. This social inequity could be mitigated through a long term cost sharing approach with downstream users, such as a North Santiam water source protection fee initiated by those from the City of Salem, the City of Stayton and sub-users who purchase water from those communities.

ALTERNATIVES EVALUATED If no action is taken to address the wastewater needs in the North Santiam Region, it is anticipated that the community will continue to experience septic system failures which can quickly become a wide-spread hazardous public health concern. A recent example of this in 2017 was as an algae bloom warning issued for Detroit Lake for cylindrospermopsin.³ Algae blooms and other types of harmful bacteria can raise the treatment costs for downstream public water supply systems such as the City of Salem.⁴ Portland is experiencing a similar problem, the inflated cost to treat their municipal water from the Bull Run watershed. Current reports estimate the additional cost for the City of Portland to treat the natural water source in the Bull Run watershed for municipal drinking water could be as much as \$500 million.⁵

If runoff from untreated septic effluent contaminated water sources, such as the North Santiam River, the communities would likely be required by state and federal agencies to provide a high cost wastewater solution with less than favorable terms and conditions. Finding, funding and implementing a wastewater solution locally with time to fully evaluate the optimal governance models, cost structures, user fees, system operations and maintenance will likely receive more local support than waiting for a disaster to occur and responding urgently when emotions run high. While Marion County could leave this issue to be resolved by the communities themselves, the water source protection risk for a large swath of the county's drinking water is much too important to wait for a public health disaster.

³ Oregon Health Authority. *Algae Bloom Advisories*, <http://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RECREATION/HARMFULALGAEBLOOMS/Pages/Blue-GreenAlgaeAdvisories.aspx>

⁴ North Dakota Health Department. *Harmful Algal Blooms (HABs)*, <http://www.ndhealth.gov/WQ/SW/HABs/defaultHABs.htm>
Centers for Disease Control. *One Health Harmful Algal Bloom System (OHHABS)* <https://www.cdc.gov/habs/ohhabs.html>

⁵ OPB. *Portland Weighs \$500 Million Water Treatment Plant* <http://www.opb.org/news/article/portland-water-treatment-plant-cryptosporidium-proposal/>

The current economic fragility of the city and business budgets is of dire concern in this region with long lasting financial loss effects. This leaves little room for long term risk mitigation without the financial contributions of downstream water users such as the City of Salem. Taxation to obtain funds for this project rather than direct user fees were considered for the project but not ideal. A tax rate would bring the need for a direct election and political activity that would likely come from outside the current stakeholder group. The North Santiam communities desire local governance of a sewer district and direct stakeholder partners advocating and supporting their economic development efforts.

RECOMMENDATIONS

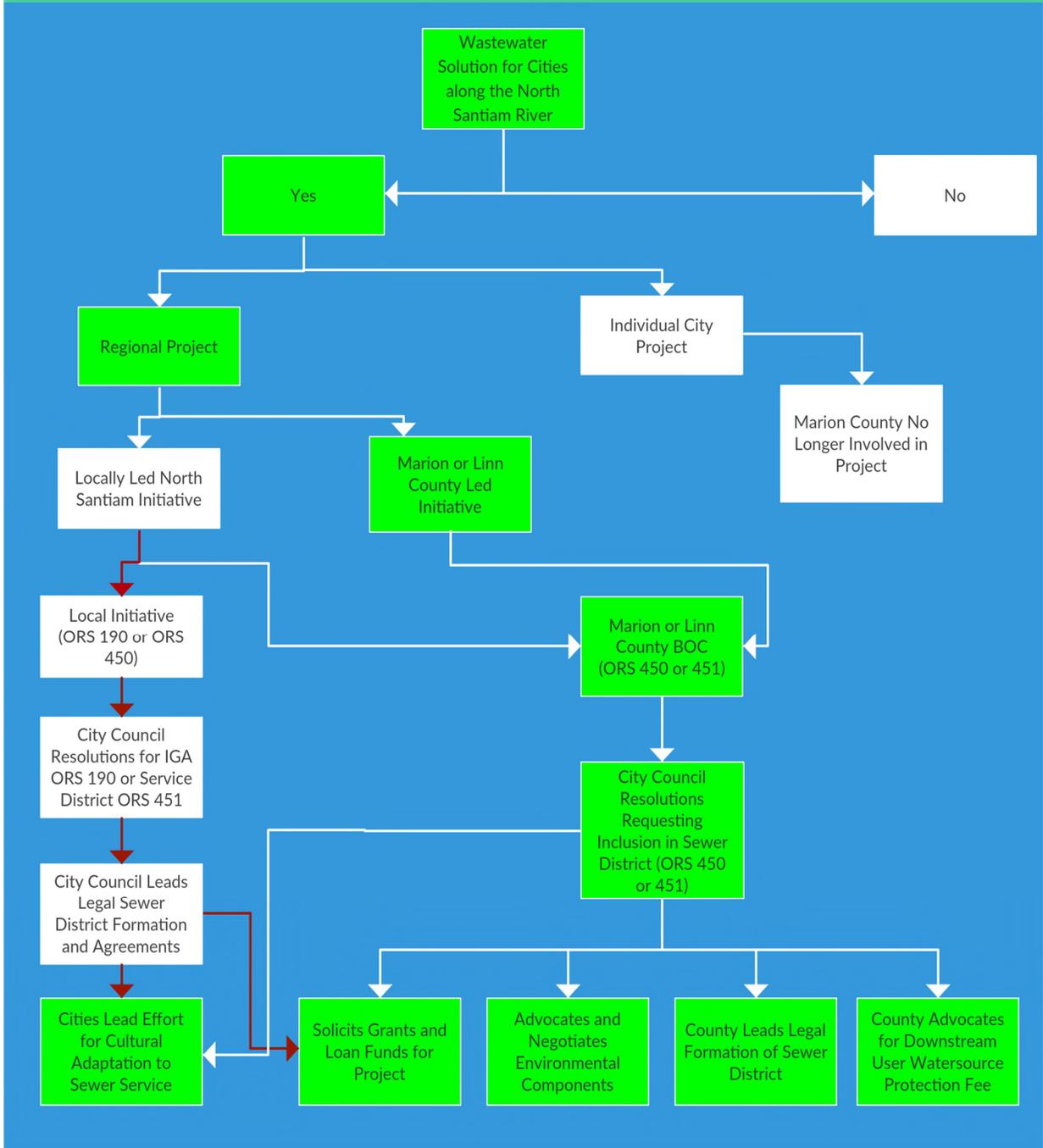
- ▶ Marion County, state, and local officials negotiate an agreement with the City of Salem to institute a water source protection fee onto municipal water users and sub-users with project specific stipulations to offset cost of matching funds, long term investment necessary to maintain a healthy water source, in exchange for a seat on the sewer district board
- ▶ Marion County to draft and pass a resolution to dedicate 3 years and commit \$500,000 of Oregon Lottery funds to this project, plus 2 FTE staff to guide the process
- ▶ Marion County collaborate with strategic partners to modify or receive a variance to the Three Basin Rule to address the social inequity of burdening low income, rural residents the cost of water source protection for downstream users
- ▶ Marion County draw the boundary map and legal description of the sewer district to include Mill City, Gates, Detroit, Idanha, and potentially Mehama (No areas in Lyons UGB)
- ▶ Marion County draft an economic feasibility analysis with a 1st and 3rd year budget and impact analysis upon other districts and cities within the proposed district (if compression is an issue)
- ▶ City resolutions from Mill City, Gates, Detroit, and Idanha requesting Marion County form a sewer district including their city

- ▶ Once the city resolutions are complete, Marion County to initiate an ORS 450 Special District utilizing the formation steps defined by Marion County legal department and in compliance with state regulations
- ▶ Marion County request public hearings to initiate an ORS 450 Special District-Sanitary Sewer Authority- North Santiam Joint Sewer District without an election, requiring appointed 5 member board following all the requirements under ORS198.720 and ORS 198.830. It is suggested one board member representative from each city, Mill City, Detroit, Idanha, Gates, and one downstream water user⁶
- ▶ Marion County should commission a dual pathway engineering & design study (Three Basin Rule design and a modified Three Basin Rule design) for the North Santiam Joint Sewer Project, paid for through Marion County infrastructure funds
- ▶ Website development for community tracking of the issue outside of Marion County’s website
- ▶ Marion County solicit an estimated \$39-\$59 million in funding through direct appropriations, grants, loans or private funding of project

Staffing recommendations	Purpose
▶ 1.0 FTE- Project Manager	▶ Negotiate agreements, go between departments and agencies, community updates, City Council presentations, create and facilitate project plan, work with funding agencies, craft legislative agendas
▶ .5 FTE Contract and Grant Specialist	▶ Drafting of RFPs, grant applications and general contract management
▶ .5 Administrative Support	▶ Public meeting noticing, creation of visual documents, maintain contact lists, arrange and schedule meetings, letter writing, website updates and maintenance of transparency documents

⁶ Downstream user must be from a community who agrees to assess a water source protection fee to water bills.

North Santiam Joint Sewer Project



General decision path for North Santiam communities to move forward on a wastewater solution. Green identifies preferred pathway.

RISK MITIGATION TO RECOMMENDATIONS

****Risk 1: Salem does not provide a water source protection fee to the project**

Mitigation 1: The project could reduce the borrowing capacity dollar amounts to zero, but unlikely to allow project to move forward without the required local community borrowed match of funds. This is not ideal and the City of Salem has a significant vested interest in the health of the North Santiam River. If the City of Salem is unwilling to provide financial resources, it is unlikely this project can move forward successfully.

Risk 2: North Santiam community buy-in never solidifies

Mitigation 2: Communicate with community members by providing educational pieces, presentations, and informational meetings, stress importance of taking action, prior to being required to take action at a potential high cost

Risk 3: Federal or state government will require a higher level of wastewater handling increasing the cost to an unsustainable level

Mitigation 3: Create a project plan for a regional sewer project to incorporate all of the North Santiam communities; Lyons and Mehama may need to join in the coming years once formed

Risk 4: City councils do not all request help with a servicing district for sanitary wastewater

Mitigation 4: The County can set up sewer district with or without all communities agreeing to do it; although it is not recommended for the County to go it alone if the communities do not request assistance by city council resolution

Risk 5: Three Basin Rule risk that does not allow for change of Three Basin Rule

Mitigation 5: Draft two engineering and design reports simultaneously for the project, one way Three Basin Rule modification/variance (as recommended by the Keller Associates) and one with the Three Basin Rule in tact

Risk 6: High cost risk to residential users

Mitigation 6: Mitigated by loan and grant agencies requirement of the affordability rate of 1.4% of MHI will keep cost low

Risk 7: No commercial bond credit score

Mitigation 7: Negotiated with plan for long-term strategy and the completion of 1 to 3 year budget estimations

Risk 8: Risk of obtaining federal or state direct appropriations

Mitigation 8: Use of federal advocate, local congressional support at the federal, state, and local level

Risk 9: Risk that too many potential sewer connections would reside in Linn County which would not allow Marion County to create a sewer district

Mitigation 9: Remove Lyons UGB and potentially the Mehama area from the initial service district with plans for Lyons to join at a later date in the future once service district is set up

Risk 10: Not enough local advocates and champions among the cities to move project along. Key funders identify this as an identifiable challenge to the project

Mitigation 10: Once cities request the formation of the North Santiam Joint Sewer District, Marion County can supplement staffing of the project for a period of three years

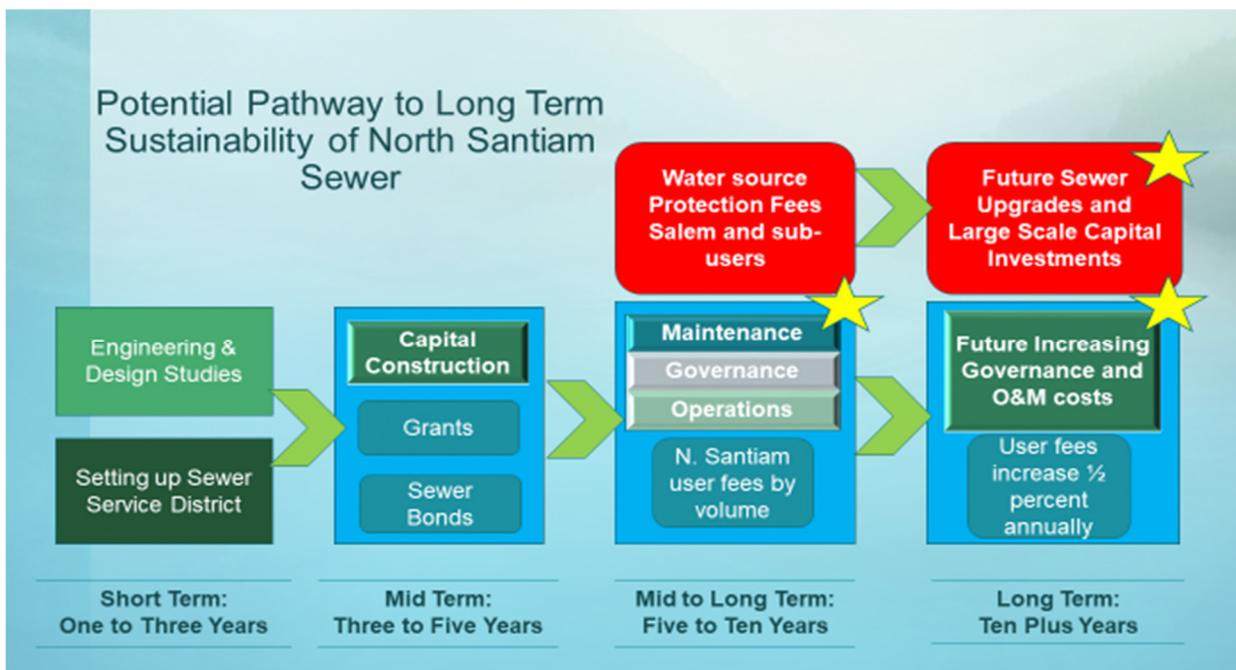
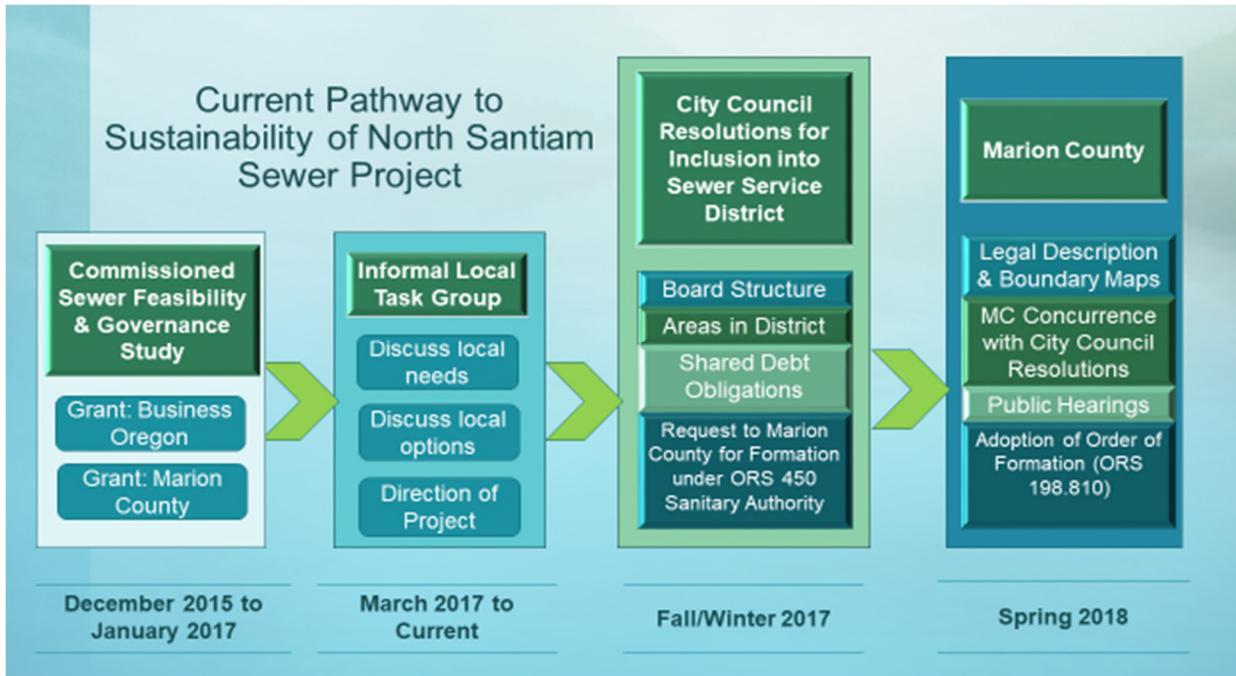
Risk 11: Key stakeholder, staff, volunteer or local champion leaves the project

Mitigation 11: Two FTE staffing by Marion County is imperative and can help to mitigate the risk of losing essential partners or players; local champions identification

Risk 12: Federal or state agencies require immediate action on wastewater solution

Mitigation 12: With an urgent issue of water quality, additional funding becomes available to offset some of the cost

Next Steps



Resources

- ▶ American Community Survey. *City Population Estimates*. 2010-2015.
- ▶ City of Salem Water Utilities <http://www.cityofsalem.net/CityDocuments/water-management-conservation-plan.pdf> accessed July 2017.
- ▶ Centers for Disease Control. *Source Water Protection Practices Bulletin Managing Septic Systems to Prevent Contamination of Drinking Water*. http://www.nesc.wvu.edu/pdf/ww/septic/epa_septicwater_protection.pdf (July 2017)
- ▶ Centers for Disease Control. *Harmful Algal Bloom (HAB)-Associated Illness: How to Reduce Exposures and Prevent Illness*. <https://www.cdc.gov/habs/prevention-control.html> (July 2017)
- ▶ *Household Wastewater Treatment including Septic Systems*. Cornell University Extension Services. (July 2017) <http://waterquality.cce.cornell.edu/septic.htm>
- ▶ Keller Associates (2017) *North Santiam Regional Wastewater Feasibility Study*. Salem, Oregon. Available at <http://www.co.marion.or.us/CS/EconomicDevelopment/Pages/North-Santiam-Joint-Wastewater-Project.aspx>
- ▶ Maul Foster & Alongi (2017) *North Santiam Canyon Land Inventory Summary Report*. Portland, Oregon. Available at <http://www.co.marion.or.us/CS/EconomicDevelopment/Pages/North-Santiam-Joint-Wastewater-Project.aspx>
- ▶ Metropolitan Wastewater Management Commission. *Recycled Water FAQs*. (April 2017). Springfield, Oregon. http://www.mwmcpartners.or/recycledwater_FAQs.html
- ▶ Mid-Willamette Council of Governments (2014) *North Santiam Economic Development Opportunity Study*. Salem, Oregon. <http://www.mwvcog.org/programs/economic-development/economic-development-services/>

- ▶ Moody's Investor Services. Damutz, Ted. *Analysis of Water and Sewer Debt*. UNC School of Government Environmental Finance Center Chapel Hill (February 2015)
<https://efc.sog.unc.edu/sites/www.efc.sog.unc.edu/files/07%20Damutz%20UNC%20EFC%20Feb%202015%20Presentation.pdf>
- ▶ Oregon Administrative Rule 340-41-350. (2004).
- ▶ Oregon Legislative Information System. (March 2017) *Environment and Natural Resources Committee*.
<https://olis.leg.state.or.us/liz/2017R1/Committees/SENRR/Overview>
- ▶ Oregon Legislative Information System. (March 2017) Senate Bill 835.
<https://olis.leg.state.or.us/liz/2017R1/Downloads/MeasureDocument/SB835/Introduced>
- ▶ USDA Rural Development Program Guide.
https://www.rd.usda.gov/files/WA_Program_Guide_2015.pdf (May 2017)

Appendix

- Appendix A* Marion County Assignments List
- Appendix B* Historical Timeline of Events on Project
- Appendix C* Grant and Loan List- Oregon Water Resources Department, ODEQ, OHA, Business Oregon, USDA
- Appendix D* Timeline for Creating of a Sewer District
- Appendix E* Force Field Analysis
- Appendix F* Communication Matrix Form
- Appendix G* Strategy Canvas North Santiam Joint Sewer Project

**APPENDIX A: MARION COUNTY ASSIGNMENTS
NORTH SANTIAM JOINT SEWER PROJECT**

Internal: TEAM Marion County to Collaborate on Infrastructure Challenges						External Stakeholders				
Marion County Legal	Marion County BOC	Marion County Public Works	Marion County Community Services	Marion County Public Health	Cities Mill City, Gates, Detroit, and Idanha	Linn County BOC	Downstream Users of North Santiam River Watershed	Federal Legislative/Permitting/Funding	State Legislative/Permitting/Funding	
Draft legal description of area to be included in the special district- North Santiam Sewer District (ORS 450 and 451.435)	Resolution for 3 yr. of help and \$500,000 directly committed to project	Create mapping of legal description from MC Legal	Reserve a minimum of \$500,000 in infrastructure funds from Economic development lottery funds for reports and studies	Research and reporting of adverse health factors- access to healthcare, sewer, healthy foods, walkable cities (broadband, sewer, transport, health)	Resolution to request further assistance from Marion County to pursue special district designation under ORS 450 with a desire stated for a locally controlled district	Communicate with Marion County, Mill City, Gates and Idanha regarding interest in pursuing special district formation	City of Salem-Initiate a water source protection fee to local water users accounts	Funding- USDA Rural Development, EDA, EPA, direct appropriations	ODEQ- Three Basin Rule OAR 340-041-350 and social equity of the rules that push water source protection burden to low income rural residents and limits growth potential	
Draft or locate water source rights report for the North Santiam River. (May be with Watershed Council)	Communicate with Linn County about plan and determine level of involvement and willingness to concur with special district formation	Attend wastewater meetings North Santiam and provide technical expertise on wastewater, funding and special districts	Budget and resource a full time Project Manager that will work with depts., agencies & legislature and .5 FTE Grants and Contract Analyst, .5 Admin support		Decide on governance model and formation of legal entity under ORS 190, 450 or 451 for sewer	Concurring resolution with the formation of a special district the sewer district formation by MC (ORS 450)	City of Salem- Concurring resolution with the formation of a special district to address upstream water protection through the sewer district formation by MC (ORS 450)	EPA Permit-National Pollutant Discharge Elimination System (NPDES)	ODEQ- Permit Water Pollution Control Facilities (WPCF)	
Research and report to BOC on action steps to appointing Board to North Santiam Sewer District and hand off responsibility to autonomous district in 3 years	Negotiate with Downstream Users of North Santiam River Watershed to initiate water source protection fee to local water user accounts- formal agreement	SHARED- Draft RFP for Master Plan consultant(s)-Surveys, engineering report, Economic feasibility analysis, 1 st and 3 rd year budget and impact analysis (compression if necessary) of other districts and cities within the proposed district			Lead Cultural Adaptation to Sewer Services and Advocate for sewer district in N. Santiam region and provide platform for spirited discussions		City of Salem- Assist in draft of Three Basin Rule modification or variance application.	U.S. Forest Service- Support letter for project and how it helps with their future projects.	Funding- OHA, RCAC, ODEQ Water Grants, DLCDC, direct appropriations	
Draft agreement on a potential downstream users water source protection fee	Concurrence Resolution to the formation of a Sewer District (ORS 450 and ORS 451.453)				Recruit candidates for service on the North Santiam Sewer District		NS Watershed Council-Assist in draft of Three Basin Rule modification or variance application.			
	Public Hearings (2) with cities and affected agencies (compression) and public				Solicit and assist in grant and loan funding opportunities					

APPENDIX B: Historical Timeline of Events
North Santiam Joint Sewer Project

Year	Name of Report/Event	Sponsoring Organization	Status
1990	Endangered Species Act and protection of Northern Spotted Owl		
1994	Northwest Forest Plan		
1996	Omnibus Parks and Public Lands Management Act		
2000	Designation of the Opal Creek Wilderness and Scenic Recreation Area		
2000	North Santiam Canyon Economic Opportunity Study- To study and plan for a best use of \$15 million for the transfer of land impacted (Funds were not appropriated and no funds matriculated)		
2012	Comprehensive Economic Development Study (CEDS)	Mid- Willamette Valley Council of Government (MWVCOG)	Completed
2014	North Santiam Canyon Economic Opportunity Study	Mid- Willamette Valley Council of Government (MWVCOG)	Completed
September 2014	City of Detroit Wastewater Feasibility Study	City of Detroit	Completed
April 2015	Distressed Communities Workshop	Marion County	Completed
December 2015	Distressed Communities Follow-up in Gates	Marion County	Completed
January 2016	The Stayton Mail- 1/10/2016 Story titled "Restoring canyon communities' infrastructure, vitality"	Marion County, The Stayton Mail	Completed

March 2016	Brief State Senator Fred Girod and Rep. Sherrie Sprenger on activity in N. Santiam communities	Marion County	Completed
May 2016	Meeting with USDA Rural Development- Sam Goldstein and Jill Rees	Marion County	Completed
June 2016	Meeting with Nancy Straw with Ford Family Foundation about economic development priorities in North Santiam Canyon	Marion County, Ford Family Foundation	Completed
June 2016	Meeting with Wastewater Feasibility Study contractors and city officials	Marion County, Mill City, Gates, Lyons, Detroit, Idanha, contractors	Completed
July 2016	Federal Congressional Staff Meeting to discuss economic development and local recreation resiliency	Marion County, Congressman Schrader and CFM	Completed
July 2016	2016 Comprehensive Economic Development Update Marion County Board of Commissioners Management Update	Marion County and MWVCOG	Completed
August 2016	Meeting with North Santiam Watershed Council Coordinator	Marion County, North Santiam Watershed Council	Completed
Spring 2017	Community Health Assessment in North Santiam Canyon communities	Oregon Health Authority and Marion County	Underway
November 2016	North Santiam Wastewater Feasibility, Land Inventory and Health Assessment Work Session with the Marion County Board of Commissioners	Keller Associates consultant, Maul Foster & Alongi consultants, Oregon Health Authority, MC Public Health and MC Community Services	Completed
November 2016	North Santiam Wastewater Feasibility, Land Inventory and Health Assessment Draft Community Feedback	N. Santiam Community, city leadership for Lyons, Mill City, Detroit and Gates (Idanha had city council mtg.) Keller Associates consultant, Oregon Health	Completed

		Authority, and MC Community Services	
December 2016	The Canyon Weekly- 12/1/2016 Stories titled "Detroit plans excavation of marinas to extend season" and "Officials work toward a canyon-wide sewer system"	Marion County, The Canyon Weekly	Completed
January 2017	North Santiam Regional Wastewater Analysis and Land Inventory- Final Report released	Infrastructure Finance Authority (IFA) and Marion County	Completed
February 2017	The Canyon Weekly-2/9/2017 Story titled "Santiam Canyon gets one step closer to a community sewer system"	Marion County, The Canyon Weekly	Completed
March 2017-July 2017	North Santiam Joint Sewer Project Work Group meetings (#1-7)	Individuals from Detroit, Gates, Idanha, Lyons/Mehama, Mill City, Marion County and interested stakeholders	Completed
July 2017	Informal updates with Jaime Isaza with ODEQ, Ella from USDA Rural Development and Michelle Billbery with Business Oregon at RCAC Water and Wastewater Financing Workshop	Marion County, Business Oregon, ODEQ, and USDA Rural Development	Completed
July 2017	City Council update by Marion County to city councils in Detroit, Idanha, Gates, and Mill City	Marion County and city councils in Detroit, Idanha, Gates, and Mill City	Completed
August 2017	North Santiam Joint Sewer Project Report released, Presentation of viability and next steps in project	Marion County	Underway

APPENDIX C: Loan and Grant Options for North Santiam Canyon

Organization	Grant Name/ Program	Purpose	Info
Oregon Health Authority	Drinking Water State Revolving Fund	<p>Infrastructure Projects The water system infrastructure loan program funds planning, design and construction of drinking water infrastructure improvements, including repair or replacement of existing infrastructure.</p> <p>Sustainable Infrastructure Planning Projects The sustainable infrastructure planning program funds water system planning and related activities that promote sustainable water infrastructure.</p> <p>Drinking Water Source Protection Projects The drinking water source protection fund provides loan and grant funds for eligible drinking water source protection projects.</p>	http://public.health.oregon.gov/healthyEnvironments/DrinkingWater/SRF/Pages/index.aspx
Oregon DEQ	319 Grants	<p>Funds are appropriated through the U.S. Environmental Protection Agency under Section 319 of the Clean Water Act:</p> <ul style="list-style-type: none"> • technical assistance • site assessment • public awareness and education • training • technology transfer • demonstration projects • monitoring to assess the success of specific NPS implementation project 	http://www.oregon.gov/deq/WQ/Pages/nps319.aspx
RCAC- Rural Community	Environmental Infrastructure Loans	RCAC offers loans to finance water and waste facility projects. RCAC provides 1 early funds	http://www.rcac.org/lending/environmental-loans/

Loan and Grant Options for North Santiam Canyon

Assistance Corporation		for small rural communities need to determine project feasibility and to pay pre-development costs prior to receiving state and federal funding	
USDA Rural Development	Technical Assistance and Training Grant	Free technical assistance and/or training provided by the grant recipients. Qualified private non-profit organizations will receive TAT grant funds to identify and evaluate solutions to water and waste disposal problems in rural areas, assist applicants in preparing applications for water and waste grants made at the State level offices, and improve operation and maintenance of existing water and waste disposal facilities in rural areas.	http://www.grants.gov/web/grants/search-grants.html?keywords=wastewater
USDA Rural Development	Water & Waste Disposal Loan & Grant Program	Provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage to households and businesses in eligible rural areas (under 10,000 pop).	http://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program
Economic Development Administration (EDA)	Public Works	Empowers distressed communities to revitalize, expand, and upgrade their physical infrastructure to attract new industry, encourage business expansion, diversify local economies, and generate or retain long-term, private sector jobs and investment.	https://www.eda.gov/programs/eda-programs/
Economic Development Administration (EDA)	Economic Adjustment	Assists state and local interests in designing and implementing strategies to adjust or bring about change to an economy. The program focuses on areas that have experienced or are under threat of serious structural damage to the underlying economic base. Under Economic Adjustment, EDA administers its Revolving Loan Fund (RLF) Program, which supplies small businesses and entrepreneurs with the gap financing needed to start or expand their business.	https://www.eda.gov/programs/eda-programs/
Economic	FY 2016 – FY 2019 EDA	EDA assists eligible recipients in creating regional	http://www.grants.gov/web/grants/view-

Loan and Grant Options for North Santiam Canyon

Development Administration (EDA)	Planning Program and Local Technical Assistance Program	economic development plans designed to build capacity and guide the economic prosperity and resiliency of an area or region.	opportunity.html?oppld=280447
Business Oregon-Infrastructure Finance Authority	Water/ Wastewater Financing Program	<p>Loans up to \$10 Million Grants up to \$750,000 Can be used for purchase of right of way easements, design, construction engineering, technical assistance</p> <p>Technical Assistance funding for populations under 15,000 for grants up to \$20,000 and loans up to \$60,000 per project</p>	http://www.orinfrastructure.org/Infrastructure-Programs/WW/

**APPENDIX D
TIMELINE FOR CREATION OF COUNTY SERVICE DISTRICT (WITH ELECTION)**

IF INITIATED BY PETITION:	IF INITIATED BY BOARD ORDER:
<ul style="list-style-type: none"> • Before circulating a petition, the chief petitioner must prepare an economic feasibility statement for the proposed district – ORS 198.749. 	<ul style="list-style-type: none"> • The Board of Commissioners adopts an order containing: 1. The intent of the county to initiate the formation of a county service district; 2. The name and boundaries of the district; and 3. The date, time, and place of a public hearing on the proposal – ORS 198.835. If any part of the territory of the district is within a city, the order must be accompanied by a certified resolution of the city approving the order.
<ul style="list-style-type: none"> • Before circulating a petition, the chief petitioner files prospective petition with County Clerk, including a description of the district boundary – ORS 198.748. The Clerk will review the petition to insure compliance with the requirements of ORS 198.750. If the district is to have a permanent rate (tax), the chief petitioner will need to submit the economic feasibility statement along with the prospective petition to the Clerk as well. 	<ul style="list-style-type: none"> • The first public hearing is set not less than 30 or more than 50 days after the date of filing with the board – ORS 198.800. The board then publishes twice and posts in three places notice of the hearing. Publication must occur at least 15 days and 5 days prior to the hearing – ORS 198.730(2).
<ul style="list-style-type: none"> • After obtaining the required number of signatures on the petition pursuant to ORS 198.755(1), the chief petitioner submits the petition, the economic feasibility statement, and a bond or cash deposit to the County Clerk for certification – ORS 198.765, 198.775. All signatures must have been secured within six months of the date on which the first signature was affixed; and if the proposal includes a permanent rate (tax), the petition must be filed not later than 180 days before the date of the next May or November election at which the petition will be voted upon – ORS 198.765(1). 	<ul style="list-style-type: none"> • The first hearing shall be conducted in accordance with ORS 198.805. The board may continue the first hearing for up to 4 weeks.
<ul style="list-style-type: none"> • The Clerk has 10 days to determine whether the required number of signatures have been gathered – ORS 198.765(2). 	<ul style="list-style-type: none"> • At the conclusion of the first hearing, the board enters an order declaring the name of the district and boundaries – ORS 198.810. The order also sets a second hearing not less than 20 nor more than 50 days after the date of the order. Notice of the second hearing must be given by publication, which must occur at least 15 days and 5 days prior to the hearing pursuant to ORS 198.730(2).
<ul style="list-style-type: none"> • Once the Clerk determines that the required number of signatures has been gathered, the chief petitioner files the petition with the county board. The board then sets a hearing date not less than 30 or more than 50 days after the date of filing with the board – ORS 198.800. The board then publishes twice and posts in three places notice of the hearing. Publication must occur at least 15 days and 5 days prior to the hearing – ORS 198.730(2). 	<ul style="list-style-type: none"> • After the second hearing, if district does not have a permanent rate (tax) or 15% or 100 electors (whichever is less) do not request an election, the board may issue an order formally creating the district – ORS 198.820.
<ul style="list-style-type: none"> • The first hearing shall be conducted in accordance with ORS 198.805. The board may continue the first hearing for up to 4 weeks. 	<ul style="list-style-type: none"> • If district does not have a permanent rate or 15% or 100 electors (whichever is less) do not request an election, no election is held and district formally exists at this point.
<ul style="list-style-type: none"> • If the board approves the petition as presented or modified, it enters an order declaring the name of the district and boundaries – ORS 198.810. The order also sets a second hearing not less than 20 nor more than 50 days after the date of the order. Notice of the second hearing must be given by publication, which must occur at least 15 days and 5 days prior to the hearing pursuant to ORS 198.730(2). 	
<ul style="list-style-type: none"> • After the second hearing, if district does not have a permanent rate (tax) or 15% or 100 electors (whichever is less) do not request an election, the board may issue an order formally creating the district – ORS 198.820. 	
<ul style="list-style-type: none"> • If district does not have a permanent rate or 15% or 100 electors (whichever is less) do not request an election, no election is held and district formally exists at this point. 	

IF DISTRICT IS TO HAVE A PERMANENT RATE OR 15% OR 100 ELECTORS (WHICHEVER IS LESS) REQUEST ELECTION:
<ul style="list-style-type: none"> • The Board of Commissioners issues an order calling for an election – ORS 198.815. An election on a district with a permanent rate must be at the next available general or primary election (May or November). Order must require the County Clerk to include a map or other description of district boundaries provided by the Board of Commissioners and the permanent rate (if applicable).
<ul style="list-style-type: none"> • The order should include a notice of measure election (which includes a ballot title, caption, and summary) pursuant to ORS 250.185, which must comply with the word limits in ORS 250.035. The ballot title must comply with the requirements of ORS 250.038 and 280.070(6). Also, the order should include an explanatory statement pursuant to ORS 251.345, which must comply with the word limit in OAR 165-022-0040.
<ul style="list-style-type: none"> • The order (with notice of measure election and explanatory statement) must be filed with the County Clerk at least 80 days before the election.

<ul style="list-style-type: none"> • County Clerk publishes the notice of measure election in the next available edition of a paper of general circulation in the county, and may publish on the county website for the next 7 days – ORS 250.175.
<p>Ballot title challenge process: ORS 250.195:</p> <ul style="list-style-type: none"> • Challenge to ballot title must be filed no later than the 7th business day after the ballot title is filed with the County Clerk. • Elector filing ballot title challenge must notify County Clerk no later than 5 p.m. the next business day after the day the challenge is filed. • Challenge is heard by Circuit Court, and is the first and final review of the ballot title. Circuit Court review is to be conducted expeditiously to insure timely conduct of the election.
<ul style="list-style-type: none"> • If no ballot title challenge filed, county prepares Secretary of State form SEL 801 and submits it to the County Clerk. If a ballot title challenge is filed, after the ballot title challenge is resolved, the County Clerk submits the final ballot title (as determined by the Circuit Court) to the county the next business day – ORS 250. The county then prepares the SEL 801 form based on the final ballot title and submits it to the County Clerk.
<ul style="list-style-type: none"> • County must file ballot title (i.e., file form SEL 801) with County Clerk not later than the 61st day before an election, unless the election is to be held on the first Tuesday after the first Monday in November and the ballot title is filed on the second Tuesday in March, in which case the ballot title must be filed not later than the 47th day before the election – ORS 254.103, 203.085.
<ul style="list-style-type: none"> • After election, board issues order formally creating the district if the voters approve its formation, or dismissing the proposal if formation is rejected by the voters. The order must be entered within 30 days after the election – ORS 198.820.

APPENDIX E: North Santiam Joint Sewer Project Force Field Analysis

Sort

Original Order

ID	HELPING Forces	Score
	None of cities independantly have resources to go it alone	10
	Transportation Corridor	9
	Availability of technical assistance	8
	Mayors from Mill City, Gates, Detroit, Idanha want to address	8
	Regional Solutions/ Governor's office support	8
	State and federal legislative advocacy	7
	Water source protection advocates can be mobilized	7
	Narrative of story/ complexity	6
	Rural infrastructure is ED trend	6
	Urban downstream water users	5
	Economic growth potential	5
	Availability of funding	4
	Economic opportunity and feasibility studies complete	4
	Regional tourism hub	3
	Potential earmark opportunities	1
Helping Forces Total		91



Score	OPPOSING Forces	ID
10	High cost of permitable solution	
9	Three Basin Rule requirements	
7	2017 Federal budget proposals	
7	Regulatory environment and permitting near government lands	
6	Tax adverse communities	
6	Deep government distrust/resentment	
6	Concentration of low income in some communities	
5	Diverse geology of the region not conducive to some solutions	
5	Aging population with static incomes and little desire to change	
4	State budget shortfalls	
3	Previous attempts Detroit/Idanha	
2	Preceived reliability of current utility provider	
2	Unfulfilled federal promises	
2	History of city competition for resources	
1	Desire for no growth in some communities	
75	Opposing Forces Total	

APPENDIX G: Strategy Canvas
North Santiam Joint Sewer Project

Strategy Canvas

Our strategic performance

1= Low to 5= High	Cost of wastewater solution	Support Level	Politically viable	Geologically suitable	Environmentally sustainable	Financially feasible
Agency perception	4	3	2	4	4	2.5
Community perception	4.5	2	3	3	4	2
Goal	2.4	5	4	4.5	4	5

