Burnt Bridge Creek Partnership

Sewer Connection and Septic Systems Workgroup

Meeting Summary - April 26, 2021

*Please complete this **Doodle Poll** to find a time for the next Burnt Bridge Creek Partnership Meeting.*

Background

The Burnt Bridge Creek Partnership kicked off in February 2021 to develop a TMDL Alternative Restoration Plan for the Burnt Bridge Creek watershed, which is also known as a "Water Cleanup Plan." After the kickoff meeting, the City of Vancouver established implementation workgroups for different priorities in the watershed. The workgroups include Sewer Connection and Septic Systems, Urban Forestry and Greenways, Stormwater and Capital Improvements, Operations and Maintenance, and Public Education and Outreach.

Sewer Connection and Septic System Workgroup

The Burnt Bridge Creek Sewer Connection and Septic Systems Workgroup met on April 26, 2021, from 10:30 a.m. – 12:00 p.m. The purpose of this workgroup is to provide input on priorities for sewer and septic systems to support development of the *Burnt Bridge Creek Water Cleanup Plan*. The objective of the first workgroup meeting was to review priority locations for water quality improvement from the *Burnt Bridge Creek Source Assessment*, and to begin outlining implementation priorities using the Sewer Connection and Septic Systems Worksheet.

Discussion topics for this workgroup included the Sewer Connection Incentive Program (SCIP), sewer extension, septic systems, public education and outreach, and critical focus areas based on hydrogeology. As a next step, Ecology will meet with the City of Vancouver's wastewater permit manager to learn more about the City's wastewater infrastructure, operations, maintenance, and capital needs. The agenda and presentation from the workgroup meeting is available online.

Next steps

The full Burnt Bridge Creek Partnership will meet in July 2021. The purpose of this meeting will be to review what was discussed at each of the Burnt Bridge Creek workgroups and to present draft priorities for implementation.

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Land use and land ownership

The City of Vancouver is the primary jurisdiction in the Burnt Bridge Creek watershed, with Clark County having jurisdiction in northern portions of the watershed, mostly in Cold Creek. The Washington Department of Transportation (WSDOT) also has jurisdiction on state roads which includes interstate 5 (I-5), Interstate 205 (I-205), and State Road 500 (SR 500). Only 11 percent of the land in Burnt Bridge Creek is publicly owned. Vancouver is the largest public landowner, owning 44 percent of the total public land. Clark County owns 10 percent of public land, and WSDOT owns 3 percent. The watershed can be divided into three parts, which includes the lower, middle, and upper watershed. The lower watershed is located between river miles 0 and 5, the middle watershed includes river miles 5 to 10, and the upper watershed is river miles 10 to 13. The primary land use in the watershed is residential, with approximately 44 percent of the total watershed consisting of residential land uses. The significant presence of residential land uses confirms that managing human waste from residential land uses is a high priority in the watershed. In total, approximately 89 percent of the watershed is privately owned.

Water quality priorities

The Burnt Bridge Creek Watershed is on the States Polluted Waters List (303d list) for bacteria, dissolved oxygen, temperature, and pH impairments. A full summary of water quality impairments from the *Burnt Bridge Creek Source Assessment* is available online.

For sewer and septic systems, the parameters of interest are bacteria and dissolved oxygen. Human waste is one source of pollution that is associated with bacteria and dissolved oxygen exceedances in the Burnt Bridge Creek watershed. There are three different priority areas for reducing bacteria and improving dissolved oxygen.

Priority area #1	Peterson Channel, Cold Creek, and Burton Channel are priorities for bacteria reduction, as well as river miles (RM) 8.4, 2.6, and 1.6. All of these areas have bacteria geometric means over 200 cfu/100ml during the dry season. This is almost double the state water quality standard for fecal coliform at the time of this study, which was a geometric mean of 100 cfu/100ml. All of these locations need bacteria reductions of over 75 percent to meet water quality standards.
Priority area #2	The second priority is all areas that need bacteria reductions of over 75 percent in the wet or dry seasons to meet water quality standards. These include the following locations. • **Peterson Channel** in the wet and dry season • **Burton Channel in** the wet season • **Cold Creek and river mile 8.4** in the dry season • **Burton Channel and River mile 7.0, 4.3, 2.6 and 1.6** in the wet season.
Priority area #3	The third priority are all areas that have bacteria geometric means over 100 cfu/100ml. These include river miles 10.4, 8, 5.9, 5.2, and 3.4. Sites with the most noncompliant days for dissolved oxygen are also a priority. These are located in the upper watershed at RM 9.5 to 11.4 and at river miles 7.0 and 5.9 in the middle watershed.

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Water quality summary

Overall, the middle and lower watershed are the highest priorities for bacteria reduction. Ecology's initial recommendation is to focus implementation in the following locations.

- **Tributaries:** Person Channel, Cold Creek, and Burton Channel
- **Middle watershed (RM 5-10):** river mile 8.4 during the dry season and river mile 7 during the wet season
- **Lower watershed (RM 0-5):** river miles 4.3, 3.4, 2.6, and 1.6 during the wet season.

The presence of dry season bacteria can indicate a direct source of bacteria from an illicit discharge or illicit connection, a sewer pipe that needs maintenance or repair, a failing septic system, or direct access of livestock or pets to the river. The presence of wet season bacteria may indicate that stormwater runoff is facilitating the movement of bacteria into surface water. Wet season bacteria may also indicate challenges with infiltration and inflow in the sewer system.

Vancouver Watershed Health Assessment

In addition to Ecology's water quality assessment, the City of Vancouver contracted with Herrera Environmental Consultants to complete the Vancouver Watershed Health Assessment in February 2019. This report confirmed that the most significant water quality decline from 2004-2007 and from 2011-2017 is located at river miles 8.4, 7.0, and 5.9, and at the confluence of Peterson Channel with Burnt Bridge Creek. This data is consistent with Ecology's *Source Assessment*, and confirms that the middle watershed is a top priority for implementation.

Septic systems

Most of the Burnt Bridge Creek watershed has sewer available to collect sanitary waste and convey it to Vancouver's wastewater treatment facilities for treatment. However, there are still thousands of septic systems in the watershed. The upper watershed between river miles 10 and 13 has an estimated 1,000 septic systems. The middle watershed between river miles 5 and 10 has 2,000 septic systems, and the lower watershed between river miles 0 and 5 has 700 systems. From a quantity perspective, the middle watershed is the highest priority for septic related work, which includes sewer connection. The middle watershed is also a high priority for bacteria reductions at river miles 8.4, and 7.0 and at the outlets of Peterson Channel and Burton Creek. Overall, focusing septic implementation in the lower and middle watershed is a high priority due to documented bacteria issues in these portions of the watershed. Additional work in the upper watershed, may help improve dissolved oxygen conditions in the upper watershed, and help reduce bacteria levels downstream.

Notes from workgroup meeting on April 26, 2021

Ecology hosted the first Sewer Connection and Septic System workgroup meeting on April 26, 2021. Eric Schadler, Sheryl Hale, and Annette Griffy attended the workgroup on behalf of the City of Vancouver. Devan Rostorfer, Lawrence Sullivan, and Molly Gleason represented the Department of Ecology. The following are notes from the meeting.

Sewer Connection Incentive Program (SCIP)

Vancouver's Sewer Connection Incentive Program (SCIP Program) developed in 1998. The purpose of this program is to improve water quality by eliminating septic systems and replacing them with public sewer infrastructure. SCIP is a part of Vancouver's capital improvements program and is primarily focused on sewer extension. Implementation of SCIP began in 2000.

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Initial priorities for the SCIP program were providing sewers in areas around drinking water stations, and areas in close proximity to surface water. It is estimated that 99 percent of areas in Burnt Bridge Creek are connected to sewer. In sewered areas, it is expected that there are only a few parcels that do not have sewer available due to parcels initially being vacant or other challenges. At the beginning of the program, priority was given to areas that had a high density of septic systems. Overall, significant progress has been made providing sewer in Vancouver, but that does not mean that all homes that are eligible to connect to sewer, have taken the opportunity to connect. If a homeowner has a septic system in the City of Vancouver, and sewer becomes available, sewer connection is not mandatory; it is voluntary.

The City of Vancouver has a geographic information systems (GIS) layer showing completed, current, and future SCIP areas. Sheryl Hale sent a map to Ecology on April 26, 2021, showing SCIP project areas. All of the "active" areas on this map are anticipated to be complete by 2026. This does not include the areas labeled for development. The City currently allocates approximately $3 million dollars a year in the capital budget for the SCIP program.

The following SCIP projects have been completed in the City of Vancouver
Note: This table will be completed in partnership with the City of Vancouver at a future meeting and amended based on information available.

SCIP project name	Neighborhood or location	Number of properties eligible for sewer	Number of properties connected to sewer	Number of remaining septic systems	Estimated cost to connect in 2021

Clark County Public Health's role in sewer connection

The City of Vancouver works closely with Clark County Public Health (CCPH), which is the organization that has primary jurisdiction over septic systems in Clark County. If a septic system is failing or is in disrepair, CCPH will not allow a homeowner to repair or replace the septic system if municipal sewer is available. Instead, CCPH will require connection to municipal sewer. CCPH has the final authority to determine if septic system repair or replacement is allowed, or if a landowner has to connect to sewer.

There are many factors that CCPH may consider before requiring a septic owner to connect. If soil conditions do not support onsite septic system use, CCPH may require sewer connection to ensure that adequate water quality treatment is occurring. If sewer is located within 200 feet of the property, then sewer connection will be required. However, if the cost to connect to sewer is more than double the cost of septic repair, or if a septic system fix is simple, then CCPH may not require sewer connection.

Septic System Inspections and Maintenance

If a homeowner does not connect to sewer and decides to keep their septic system, Vancouver recommends continuing routine septic system inspections and maintenance. Vancouver relies on CCPH to conduct necessary outreach to septic system owners for inspection and maintenance compliance through mailers, workshops, or other educational methods. CCPH has

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jurisdiction and enforcement authority for septic systems that are past due for inspections or maintenance. Historically, CCPH has sent past due operations and maintenance notification letters to septic owners, and has collaborated with WSU Extension to host workshops that teach septic owners how to care for their systems. CCPH is also working with the new Poop Smart Clark Pollution Identification and Correction program to develop a new inspection and maintenance rebate program to provide financial assistance to septic owners. Implementing this program in Burnt Bridge Creek, may help increase outreach, technical, and financial assistance to septic owners.

It is presumed that there are many septic systems in the Burnt Bridge Creek watershed that over 40 years old. It is unknown what condition these systems are in and if they are functioning properly. Identifying septic system age and condition, and any systems that are past due for inspections and maintenance may be a good first step for prioritizing septic system outreach and education. Developing new partnerships and programs for proactive septic outreach is one of the main water quality needs in the watershed.

SCIP Education and Outreach

Historically, outreach within the SCIP program has been completed to support sewer development projects, when a new sewer line is being constructed. Normally, the SCIP program will have meetings with property owners at the beginning of a project. At this meeting, Vancouver will often invite CCPH to participate to provide information on septic system maintenance and repair, while Vancouver makes homeowners aware of the opportunity to connect to sewer.

Vancouver's long-term goal is to encourage more people to connect to sewer. However, there is no additional outreach happening within the SCIP program, except for the initial project meetings when sewers are being installed. Further messaging related to sewer connection and septic systems should encourage homeowners to connect to sewer and to provide information on financing. However, if septic owners cannot connect to sewer, or choose not to, education to residents should focus on continuing to inspect and maintain their systems in accordance with local requirements implemented by CCPH.

Priority areas

According to Vancouver, there is capacity within the sewer system and at the wastewater treatment plant to convey and treat more sanitary waste, if additional homes were to connect to sewer. When considering hydrogeological conditions, the city initially focused sewer extension in areas around city water stations, which provide drinking water to Vancouver residents. These neighborhoods were prioritized because historically, some of the neighborhoods were having high hits of bacteria at water stations. Another priority for focusing sewer connection is in areas where there are tight soils and high water tables that are not conducive to septic systems functioning properly.

Currently, Vancouver suspects that the Kevanna Park neighborhood located east of the I-205 and south of Burnt Bridge Creek has tight soils that are not conducive to adequate water quality treatment. This neighborhood is located between the mainstem Burnt Bridge Creek and Peterson Channel. It is suspected that groundwater moves from northeast to southwest, therefore it is likely that septic systems in this neighborhood could contribute pollutant loading to Peterson Channel, Burton Channel, and the mainstem Burnt Bridge Creek between river miles 8

DRAFT

and 9. These locations are high priorities for bacteria reduction in the watershed and are opportunities for implementation.

Financing

The City of Vancouver provides a 20-year financing program for anyone eliminating a septic system that wants to connect to sewer. Once sewer is available, the City provides an incentive for residents to connect within 2 years. For the first 2 years, the cost to connect is fixed. However, after 2 years the cost will increase. Due to elapsed time since sewers were constructed, many of the neighborhoods that that have benefitted from sewer extension no longer have fixed rates to connect to sewer, and it may be very expensive for septic owners to connect. When conducting outreach to promote sewer connection, it is essential to have accurate pricing information for different homes across the watershed. It is possible that individual neighborhoods had multiple SCIP projects, and there could be different costs to connect within the same neighborhood.

One of the key messages related to septic systems and sewer connection is that it is cheaper to connect to sewer sooner, than later. Fees become higher over time. The City of Vancouver suggests that sewer connection may cost on average approximately $19,000 dollars. The costs that make up this total are associated with the following fees.

1. Sewer main fee (main line and lateral to connect to main).
2. Fee to decommission septic system.
3. System development charge (cost to do operations and maintenance on the system).
4. Plumbing permit.
5. Septic permit. It is expected that approximately $15,000 of the total fee is for the sewer main.

To help alleviate the financial burden that homeowners face when connecting to sewer, Vancouver may consider developing a cost-share, rebate, or grant assistance program to help private landowners pay for public sewer connection.

Sewer system conveyance and infrastructure

The City of Vancouver completes regular operations and maintenance (O&M) on its sewer collection system to help prevent issues and to make sure the system is functioning optimally. One priority area for O&M is infiltration and inflow (I&I). Infiltration and inflow occurs when sewer pipes develop cracks, holes, or leaks, which results in water getting into the sewer system during wet weather, or waste leaching out of the conveyance system into soil and water. To address I&I issues, Vancouver prioritizes manhole sealing, root management, and manhole repair to prevent infiltration and inflow. This maintenance work is completed on as needed basis if issues are found. The city proactively implements root foam to help reduce issues with roots getting into sewer pipes causing cracks. .

One high priority for I&I is inspecting and implementing improvements to the lining of lateral connections. Most challenges with infiltration and inflow are located where lateral pipes meet sewer mains. Additionally, many manholes have challenges with the structure and lids, or with surface water getting into cracks.

To find and fix I&I problems, Vancouver has a robust inspection program on its operations sides. They complete televising every 7 to 8 years to evaluate deterioration of pipes, looking for

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any major holes, cracks, or leaks. They also complete dye and smoke testing on an as needed, individual basis. Vancouver has identified some problems in their system, although specific problem areas or geographies have not been documented. Documenting operations and maintenance challenges is important to implement improvements to address water quality issues in Burnt Bridge Creek.

Overall, the Vancouver's sewer collection system is separated from municipal stormwater infrastructure; therefore, there are no challenges with combined sewer overflows. Reportedly, challenges with overflow or backup events during the wet season are rare. There are no documented areas that have challenges with backups consistently; however, there are some apartments that have bad laterals causing issues.

Future projects and capital improvements

Currently, Vancouver is designing upgrades to its Burnt Bridge Creek Diversion Pump Station to accommodate increased development and population growth in East Vancouver. Another upcoming project that may have the potential to improve water quality is a large sewer-lining project near Burnt Bridge Creek. Vancouver has done a condition assessment of sewer lining and is planning to implement an improvement project in the next 3 to 5 years.

As a next step, Ecology will meet with the City of Vancouver's wastewater permit manager to learn more about the City's wastewater infrastructure, operations, maintenance, and capital needs. More discussion on Vancouver's sewer conveyance infrastructure and future capital improvements projects will be discussed at a future meeting. Ecology is also interested in learning more about the significant amount of sewer infrastructure-stream crossings that are located in the lower watershed and some of the erosion and emergency repair challenges that the City has experienced.

Public Education and Outreach

Overall, there are three main operation and maintenance concerns for Vancouver's sewer system. These include fats, oils, and grease (FOGs), roots, and flushable wipes. These three issues cause challenges not only in the sewer collection system but also at the treatment plants. Vancouver has an active root management program in house, but there are not formal education and outreach campaigns developed for FOGs, or for flushable wipes. The City does have a ""flush bunny program" and will occasionally put a notice in billing mailers to educate the public about "unflushable" materials. Vancouver also has a staff person working at the national level to try to get labeling changed on flushable wipes to educate that the wipes are actually "unflushable" and cause significant impacts to municipal sewers. Vancouver also has one of the best fats, oils, and grease inspection program in the country that is implemented by sewer maintenance staff. This program visits restaurants to make sure grease traps are regularly cleaned and disposed properly.

Partners

Clark County Public Health is an important partner for septic system and sewer connection work in the Burnt Bridge Creek watershed. CCPH is the primary jurisdiction responsible for septic inspections, maintenance, and permitting. Cold Creek is the main area where Vancouver does not provide sewer service. Cold Creek is primarily in Clark County's jurisdiction, and is therefore Clark County's responsibility. Clark Regional Wastewater District (CRWWD) provides

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wastewater services in the Cold Creek subasin. CRWWD's involvement will be necessary for sewer connection and septic elimination work in Cold Creek. CRWWD would be responsible for doing the outreach to connect septic owners to sewer, and providing financial and technical assistance. CRWWD has an established septic elimination program, which assists neighborhoods with connecting to sewer. More information is needed related to CRWWD's programs.

Another opportunity is to collaborate with the new Poop Smart Clark pollution identification and correction program, which helps landowners with septic related assistance, by providing education and outreach, and rebates for landowners to complete septic system inspections and maintenance. In the future, Poop Smart Clark may consider expanding its programming to offer technical and financial assistance related to sewer connection.

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Based on the discussion at the April 2021 workgroup, the following implementation actions are recommended for Sewer Connection and Septic Systems in Burnt Bridge Creek. These implementation actions are draft, and may be edited and refined as Ecology and Vancouver continue to discuss water quality priorities.

SS1	**Priority areas for sewer and septic implementation**
SS 1.1	Prioritize sewer and septic system implementation to areas with known bacteria problems in the lower and middle watershed. Phase 1 implementation should be targeted to Peterson Channel, Cold Creek, Burton Channel, and river miles 8.4, 2.6, and 1.6. All of these locations have geometric means over 200fu/100ml. Phase 2 implementation should be targeted to river miles 7, 4.3, and 3.4, which need bacteria reductions of over 75% needed to meet water quality standards. P
SS1.2	Delineate drainages and sewered areas that are contributing to priority areas for water quality. Identify specific neighborhoods, sewer lines, and parcels with potential to impact water quality.
SS2	**Septic systems – inspections and maintenance**
SS2.1	Complete a septic systems record assessment to confirm which septic systems are draining to priority areas for water quality. These include Person Channel, Cold Creek, and Burton Channel and river miles 8.4, 2.6, and 1.6miles 8.4, 2.6, and 1.6. All of these locations have geometric means over 200fu/100ml. Phase 2 implementation should be targeted to river miles 7, 4.3, and 3.4, which need bacteria reductions of over 75% needed to meet water quality standards
SS2.2	Complete a septic system records assessment to identify age, condition, and criticality of septic systems. Identify which septic owners are past due for septic system inspections and maintenance.
SS2.3	Achieve 100 percent septic system inspection and maintenance compliance in the Burnt Bridge creek watershed.
SS2.4	Implement a past due operation and maintenance lettering effort, with the goal to send mailers to landowners that are past due for septic systems inspection and maintenance. During this lettering effort, remind septic owners of their eligibility to connect to sewer. Work with appropriate jurisdictions to estimate costs to connect to sewer.
SS2.5	Utilize Poop Smart Clark to implement a septic system rebate program for septic system inspections and maintenance. Develop new component of Poop Smart Clark to assist septic owners with sewer connection.

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SS2.6	Utilize source tracing and pollution identification and correction methods to identify and confirm failing septic system that are contributing to water quality exceedances.
SS2.7	Establish memorandum of understanding between City of Vancouver, Clark County Public Health, and Clark Regional Wastewater District to complete septic system inspections, maintenance, and sewer connection in the Burnt Bridge Creek watershed, which includes enforcement mechanisms The Cold Creek subwatershed is the primary location where Clark county and CRWWD are responsible for septic and sewer related implementation.
SS3	**Sewer connection**
SS3.1	Complete outreach to septic system owners that have not connected to sewer who are located in priority drainages for water quality. Septic owners located in neighborhoods near Peterson, Burton, and Cold Creeks, and river miles 8.4, 2.6, and 1.6 are priorities for implementation.
SS3.2	Require all septic system owners who are within 200 feet of a sewer line to connect to sewer.
SS3.3	Require all septic owners who are seeking permits for septic replacement to connect to sewer if sewer is available. Provide technical assistance to landowners to decommission septic systems, and financial assistance for landowners to connect to sewer.
SS3.4	Develop financial assistance programs for homeowners who want to connect to sewer. These may include applying for a grant to help landowners connect to sewer, implementing a rebate or cost-share program, or developing other tax incentives to encourage homeowners to connect to sewer.
SS3.5	Complete a septic system records assessment to identify age, condition, and criticality of septic systems. Prioritize outreach to septic owners with septic systems that are over 25 years old to promote sewer connection.
SS3.6	Require all septic owners to connect to new sewer within 2 years of when it becomes available.
SS3.7	Continue extending sewer into neighborhoods located in priority areas for water quality that do not have sewer available. These includes unsewered areas that contribute to Peterson, Burton, and Cold Creeks, and river miles 8.4, 2.6, and 1.6.
SS4	**Sewer operations and maintenance**
SS4.1	Complete sewer televising and inspection to identify, inventory, and map sewer repair needs, focusing on identifying cracks, leaks or holes in sewer pipes, presence of roots, and challenges with manholes. Document priority assets and geographic locations for O&M.
SS4.2	When necessary, utilize smoke testing and dye testing to investigate challenge with infiltration and inflow, and illicit connections.
SS4.3	Implement routine root management programs in areas where roots affect sewer infrastructure and cause challenges to infiltration and inflow. Prioritize implementation in areas contributing to water quality issues.
SS4.4	Map and develop an inventory of operations and maintenance needs in locations contributing to priority areas for water quality improvement. Prioritize implementation of sewer operations and maintenance activities in areas that contribute to priority locations for water quality.
SS4.5	Prioritize sewer repairs and capital investments in areas with known bacteria issues in the middle and lower watershed, focusing on sewer assets that are located within 200 feet of the stream, and infrastructure that is located in areas with hydrogeological conditions that may promote pollutant loading, including areas with a high water table.

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SS4.6	Consider opportunities to include “proximity to known water quality concerns” in Vancouver’s criticality matrix when prioritizing infrastructure for maintenance, repairs, and capital improvements.
SS5	**Sewer capital improvements**
SS5.1	Prioritize sewer capital improvement projects in areas where there are known bacteria issues, specifically focusing on capital projects that will address infiltration and inflow issues, prevent or alleviate backflow or overflow issues, help fix issues with manholes, and improve the lining of sewer systems, especially where laterals and sewer mains connect.
SS5.2	Develop an inventory and map sewer capital needs in locations contributing to priority areas for water quality improvement. Prioritize implementation of sewer capital projects that have the potential to improve water quality.
SS6	**Sewer and septic public education and outreach**
SS6.1	Develop public education and outreach tools to educate septic owners about the opportunity to connect to sewer, as well as finance options.
SS6.2	Complete analysis to understand how much sewer connection would cost for different SCIP projects to provide accurate education and outreach messaging to septic owners.
SS6.3	Provide education on the lifecycle costs of connecting to sewer versus inspecting, maintaining, and replacing a septic system.
SS6.4	Increase education and outreach related to best practices to dispose fats, oils, and grease in order to help maintain Vancouver’s sewer system and prevent sewer clogging. Prioritize outreach to restaurants and other food service businesses.
SS6.5	Develop an education and outreach campaign to raise awareness about how flushable wipes negatively impact sewer systems.
SS6.6	Collaborate with Washington State University Extension, CCPH, and Poop Smart Clark to host well and septic workshops for residents in Burnt Bridge Creek.
SS6	**Other**
SS7.1	Consider opportunities to provide RV pump out programs to manage sanitary waste from unhoused populations.
SS7.2	Implement best practices for composting of animal manure, including proper disposal of pet waste and implementation of livestock manure management BMPs.
SS7.3	Calculate expected bacteria load reductions from septic system decommissioning and sewer connection projects and report to Ecology and EPA.
SS7.4	Complete effectiveness monitoring at priority areas for water quality after implementation occurs to measure how septic and sewer implementation impacts water quality.
SS7.5	Track implementation of sewer and septic related activities and report progress to Ecology annually.
SS7.6	Avoid implementing new development projects that have septic systems. When possible, implement sewer before new development.

DRAFT Milestones, targets, and timelines for sewer and septic systems

Milestones and targets	Target Date
Complete a septic systems record assessment to confirm which septic systems are draining to priority areas for water quality.	2023

Complete a septic system records assessment to identify age, condition, and criticality of septic systems. Identify which septic owners are past due for septic system inspections and maintenance.	2023
Delineate drainages and sewered areas that are contributing to priority areas for water quality. Identify specific neighborhoods, sewer lines, and parcels with potential to impact water quality.	2023
Implement a past due operation and maintenance lettering effort, with the goal to send mailers to landowners that are past due for septic systems inspection and maintenance.	2025
Complete outreach to septic system owners that have not connected to sewer who are located in priority drainages for water quality.	2025
Develop financial assistance programs for homeowners who want to connect to sewer.	2025
Map and develop an inventory of operations and maintenance needs in locations contributing to priority areas for water quality improvement	2025
Complete effectiveness monitoring at priority areas for water quality after implementation occurs to measure how septic and sewer implementation impacts water quality.	2031
TBD	*TBD*
TBD	*TBD*
TBD	*TBD*

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Criteria to measure progress	Reporting timeline
Number of septic systems decommissioned	Annual
Number of homes connected to sewer	Annual
Miles or feet of sewer implemented in non-sewered areas	Annual
Miles or feet of sewer with televising complete	Annual / Every 7 years
Miles or feet of sewer inspected for I&I issues	Annual
Miles or feet of sewer lining projects completed	Annual
Number of manholes inspected	Annual
Number of manholes repaired	Annual
Number of lateral connections inspected	Annual
Number of lateral connections maintained or repaired	Annual
Number of septic owners enrolled in SCIP's financing program	Annual
Number of backup or overflow events	Annual
Number of outreach mailers sent to homeowners	Annual
Number of homeowners attending SCIP meetings	Annual
Number of homeowners attending WSU Extension Workshops	Annual
Dollars invested in sewer capital improvement projects, SCIP program, etc.	Annual
Cross connections identified and corrected	Annual

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Funding Sources	Water Quality Combined Funding Program, City of Vancouver's Sewer Utility
Implementation Partners	Clark County Public Health, Poop Smart Clark, Washington State Department of Ecology, Washington State Department of Health, Clark Regional Wastewater District, Private Landowners

Timeline for Burnt Bridge Creek Water Cleanup Plan

COMPLETE

- **October 2020:** *Burnt Bridge Creek Source Assessment* published.
- **February 2021:** Burnt Bridge Creek Partnership kicked off.
- **March 2021:** Implementation workgroups assigned
  - Stormwater and capital improvements
  - Operations and maintenance
  - Urban forestry and greenways
  - Sewer connection and septic systems
  - Public education and outreach
  - Other TBD: SEH America, local water use, and monitoring
- **April-May 2021:** Implementation workgroups.
- **June 2021**: Submit completed worksheets to Ecology.

NEXT STEPS

- **July 2021:** Full Burnt Bridge Creek Partnership meeting.
- **Summer 2021**: External partnership meeting – Lower Columbia Estuary Partnership, Watershed Alliance of Southwest Washington, Washington Department of Transportation, DOT, Clark County Clean Water Division, Clark County Public Health, Clark Conservation District, Lower Columbia Fish Recovery Board, Clark Regional Wastewater District, Washington Department of Fish and Wildlife, Environmental Protection Agency.
- **Fall 2021:** Public Webinar.
- **January 2022:** Internal Draft (City of Vancouver, Ecology, and Environmental Protection Agency).
- **Spring 2022:** External Draft *Burnt Bridge Creek Water Cleanup Plan*.
- **Summer 2022:** Publish *Burnt Bridge Creek Water Cleanup Plan.*

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