

Flood Preparedness Planning in the Sliver by the River

September 25, 2025



King County

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II. Proviso Text

Ordinance 19861, Section 79, P1, Water and Land Resources Division.

P1 PROVIDED THAT:

Of this appropriation, \$300,000 shall not be expended or encumbered until the executive transmits a report on how the county plans to implement the 2024 King County Flood Management Plan in the unincorporated residential area in the South Park neighborhood known as the "Sliver by the River." For the purposes of this proviso, the "unincorporated residential area" means those residences located in the unincorporated area of King County that is bound by the Duwamish River, 16th Ave. S., Dallas Ave. S., and 10th Ave. S. The report should be based on the work of an interdepartmental team that should include, at minimum, the water and land resources division, the flood control district, the department of local services, the department of executive services, the office of emergency management, the wastewater treatment division, the office of climate, and the office of performance, strategy, and budget, and shall include, but not be limited to:

- A. A description of key action items to address flooding in the neighborhood known as "Sliver by the River" including, but not limited to:
 - 1. Switching from septic to sewer system;
 - 2. Drainage or infrastructure improvements;
 - 3. Annexation;
 - 4. Home buy-outs; and
 - 5. Any other action items from the Flood Management Plan as applicable.
- B. The estimated costs for each of the action items;
- C. A plan to maximize external funding for implementation;
- D. A timeline to implement each of the actions;
- E. Any code or policy changes needed;
- F. Any needed intergovernmental partnerships; and
- G. A plan for community engagement.

The executive should provide a briefing on the status of the work requested in the proviso by July 1, 2025, in the local services and land use committee and electronically file the report required by this proviso by September 25, 2025, with the clerk of the council, who shall retain an electronic copy and provide an electronic copy to all councilmembers, the council chief of staff, and the lead staff for the local services and land use committee or its successor.

III. Executive Summary

Located in the historic floodway of the Lower Duwamish River, the area known as the “Sliver by the River” or “the Sliver” is the 14-acre area of urban unincorporated King County bounded by the Duwamish River, 16th Ave. S, Dallas Ave. S, and 10th Ave. S. To the people who live there, the Sliver is part of the South Park neighborhood of Seattle, which is a historically underserved area that has more racial diversity, lower incomes, and shorter life expectancies when compared to all of King County.¹

Prior to the Duwamish River being straightened and tide flats being filled in the early 20th century, the Sliver was a marshy area that changed and flooded regularly as the river meandered toward the Salish Sea. Today, the highly channelized and developed Duwamish River floods during King Tide events and storm surges. As the December 27, 2022, flood that affected 40 homes and businesses illustrated, the combination of King Tides and storm surges can have a substantial impact on South Park.

In the future, the Lower Duwamish, particularly the South Park and Georgetown neighborhoods, will be greatly impacted by sea level rise. City of Seattle sea level rise projections show that up to four feet of flood protection above the existing riverbank will be needed to stop the river from overtopping its banks in South Park by 2100.² Further, sea level rise brings with it rising groundwater levels, which can result in water pooling above ground, even if the river does not flood an area. Rising groundwater tables jeopardize underground infrastructure such as onsite septic systems and sewer lines, and above-ground structures.

In response to risks posed by sea level rise, Seattle partnered with the South Park community in 2018 to develop the Duwamish Valley Action Plan, which is a community vision for the neighborhoods of South Park and Georgetown.³ The city is also working with the community on a Duwamish Resilience District, which is a place-based geographic strategy for holistic climate change adaptation planning. While the people living in the Sliver are not residents of Seattle, the community groups working with the city include the Sliver in their work as they are part of one community.

The actions to address flooding in the Sliver included in this report have varying costs and implementation timelines; however, they are more likely to be successful if implemented in collaboration with the people and community-based organizations living and working in South Park, and in partnership with the City of Seattle so that all parties are in agreement on actions to be taken. The threats to the Sliver from flooding are substantial, and effective solutions will require a long-term strategy that includes the voices and interests of residents, the city, and the county.

Actions to address flooding in the Sliver include as listed in the Proviso:

- **Switching from septic to sewer system:** Due to the age of onsite septic systems in the Sliver and the risk posed by sea level rise, converting these systems to sewer is one way to address the impacts of flooding. The cost of converting the 21 homes in the Sliver with onsite septic systems to sewer, including building a new mainline to reach them, is estimated at between \$84,000 and \$124,000 per property owner. There is no funding source for this conversion and, as a result, no

¹ Duwamish Valley Cumulative Health Impacts Analysis, 2013, page 2. [LINK](#).

² City of Seattle, Duwamish Valley Sea Level Rise (SLR) Adaptation Visioning. [LINK](#).

³ Duwamish Valley Action Plan, [LINK](#).

timeline for implementation. Scientific analysis currently in process, sponsored by the King County Wastewater Treatment Division (WTD), will provide insight into the viability of sewer lines given rising groundwater tables along the Duwamish. Investment decisions of the magnitude needed in the Sliver should be part of a long-term sea level rise adaptation strategy.

- Drainage or infrastructure improvements: The Road Services Division (Roads) maintains three tide gates, as well as one mile of roadway in the Sliver. During the December 2022 flooding, the tide gate at S Southern Street failed to close, allowing river water to flow into the stormwater drainage system and resulting in street flooding. In July 2025, Roads replaced this tide gate at an estimated cost of \$15,000 using its existing budget.
- Annexation: While annexation of the Sliver by Seattle will not directly reduce flood risk, it would help to clarify jurisdictional roles and responsibilities on the Lower Duwamish. Such clarity would make the community's ability to navigate government services related to flooding easier and simplify long-term sea level rise planning. Further, the city is better positioned to respond to the community, especially in emergencies, as the December 2022 King Tide demonstrated.

The authority and timeline to annex the Sliver into Seattle rests with the city and Sliver residents. The County's role is to support both parties. There is no additional funding needed for the County as existing staff will manage the process. Ultimately, annexation of the Sliver will need a partnership among Seattle, King County, and the community to succeed.

- Home buyouts: Home buyouts are a cost-effective way to remove people from harm's way, reduce the burden on government to respond to floods threatening private residences, and create opportunities for flood risk reduction and habitat improvement capital projects. Since it was created, the King County Flood Control District (FCD) has funded buyouts of flood-prone homes through its interlocal agreement with King County as its primary service provider. Home buyouts should be considered as part of a larger sea level rise strategy and include awareness of the impact of buyouts on the community, especially for renters. In the near term, four houses in the Sliver are in the FEMA floodway and, therefore, eligible for a buyout. Based on 2025 home prices in the Sliver, purchasing all four homes would cost \$2.3 million.
- Any other action items from the Flood Management Plan as applicable: The 2024 King County Flood Management Plan is the policy document guiding how the County plans for and seeks to reduce the impact of flooding. The scope of the Flood Plan is countywide and some of its actions could be targeted to the Sliver. Action items relevant to the Sliver include:
 - *Conduct a flood vulnerability study* of all flood-prone structures in unincorporated King County and recommend mitigation strategies.
 - *Expand the King County Home Elevation Program* by exploring partnership opportunities to expand the home elevation program to all flood hazard areas where conditions are favorable for elevation.
 - *Develop a pre-acquisition process* for evaluating factors such as equity and cultural interests affected by potential acquisition, and the effects to neighborhoods and community of converting private property to public open space.
 - *Relocation planning* to identify high-risk properties where managed retreat may be preferred or necessary.

- *Encourage the purchase of flood insurance* and collaboratively work with partners to design a social marketing campaign or other similar effort with a goal of increasing flood insurance policies held in King County.
- *Emergency coordination* by the Office of Emergency Management with other jurisdictions.
- *Emergency public information* to facilitate local and regional message coordination.
- *Continue to provide flood warning services*, including operating a Flood Warning Center, performing field flood monitoring, coordinating with local emergency management offices and first responders, and providing notifications to the public and media.
- *Provide translated educational materials and emergency information*, including King County agency contacts during times of emergency.
- *Improve access to flood preparedness materials* by collaboratively engaging diverse audiences to co-create effective flood preparedness outreach.
- *Explore tidal/riverine flooding connections* by providing resources about the interdependencies among riverine, tidal, and coastal influences on flooding, including potential impacts and roles and responsibilities for preparedness and response.
- *Provide a flood resilience improvement program* by developing a comprehensive program to raise awareness about flooding, increase flood preparedness, reduce flooding impacts, and increase community resilience.

Because the actions identified in the report are already defined in existing King County code or policy or are ongoing operating functions, no code or policy changes are recommended.

Collaboration with the community is also vital to successfully serving Sliver residents as part of urban unincorporated King County. To that end, the Department of Local Services (DLS) assigned a Community Service Area (CSA) Liaison to the Sliver, who began holding office hours and meeting with community-based organizations in July 2025. The CSA Liaison will be a vital connection between the County, the people who live and work in the Sliver, and Seattle staff.

Providing flood preparedness and response in the Sliver is a complicated endeavor given its small size, geographic isolation from other parts of unincorporated King County, history of pollution and government under-service, and the threat of sea level rise. The actions in this report are an important part of meeting the challenge and are best pursued in partnership with Seattle and the community.

IV. Background

Department Overview: The Department of Natural Resources and Parks (DNRP) works in support of sustainable and livable communities and a clean and healthy natural environment. Its mission is to foster environmental stewardship and strengthen communities by providing regional parks, protecting the region's water, air, land, and natural habitats, and reducing, safely disposing of, and creating resources from wastewater and solid waste.

The Water and Land Resources Division (WLRD) has a biennial budget of roughly \$350 million that supports the work of just over 400 staff. WLRD manages stormwater for unincorporated areas, supports three salmon recovery forums, acquires open space, restores salmon habitat, monitors water quality, controls noxious weeds, and provides economic and technical support for forestry and agriculture. As service provider to the District, WLRD reduces flood risks and restores rivers and floodplains. In addition, WLRD operates King County's Environmental Lab and Science sections, which provide environmental monitoring, data analysis, and management and modeling services to partners, jurisdictions, and residents throughout the region. The King County Hazardous Waste Management Program — a collaborative effort between the County and its municipalities — is also part of WLRD.

Key Context:

Area Geography

Located in the historic floodway of the Lower Duwamish River, the area known as the “Sliver by the River” or “the Sliver” is the 14-acre area of urban unincorporated King County bounded by the Duwamish River, 16th Avenue S, Dallas Avenue S, and 10th Avenue S. The jurisdictional lines are invisible to residents, but to the people who live there, the Sliver is part of the South Park neighborhood of Seattle.

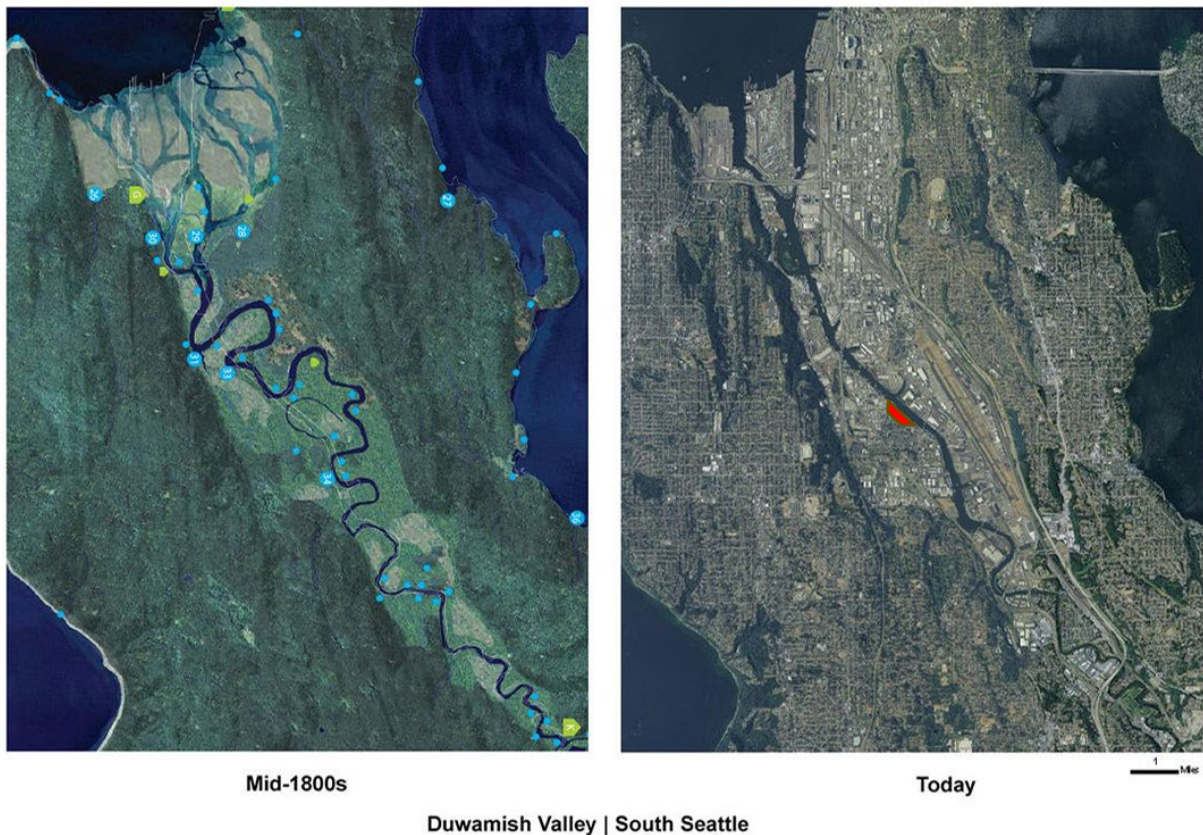
Prior to the Duwamish River being straightened and tide flats being filled in the early 20th century, the Sliver was a marshy area that changed and flooded regularly as the river meandered toward the Salish Sea. (See Figure 1.) Reconfiguring the river was part of the pattern of displacing Native American residents from the river valley that began shortly after the arrival of European settlers in the mid-19th century. The stated purpose of altering the Duwamish was to create an industrial center to drive the growth of Seattle.⁴ Heavy industries, such as cement makers, shipyards, and airplane manufacturing, grew and prospered on the river throughout the 20th century. These industries would dispose of waste from operations onsite or by dumping it into the river. The river also served as a discharge point for combined sewer overflow and sewer discharge for much of the century.⁵ This activity left a toxic legacy for the river and the fish, birds, and people who call it home, leading the Environmental Protection Agency (EPA) to declare the Lower Duwamish a Superfund site in 2001.⁶

⁴ [LINK](#).

⁵ BJ Cummings, *The River that Made Seattle: A Human and Natural History of the Duwamish*, University of Washington Press, 2020, chapters 3, 4, and 5.

⁶ See the EPA Lower Duwamish Waterway site for more information on the Superfund cleanup effort. [LINK](#).

Figure 1: Historic comparison of Duwamish River valley.
Red shape is the approximate location of the Sliver.⁷



Area Sea Level Rise

Today, the Sliver and the South Park neighborhood of which it is part is on the frontline of climate change impacts as sea level rise is projected to increase the frequency and intensity of coastal and urban flooding. Climate studies predict that the daily high tide on the Duwamish will rise by one foot by 2050 and three feet by 2100, with 100-year storm surges rising similarly. (See Table 1.) As a result, about 210 private properties in South Park would likely be flooded in a 100-year storm surge.⁸

⁷ University of Washington, Duwamish meanders: A river ran through it. [LINK](#).

⁸ City of Seattle, “South Park Sea Level Rise Adaptation Vision Summary” memo, 2021, page 2. [LINK](#).

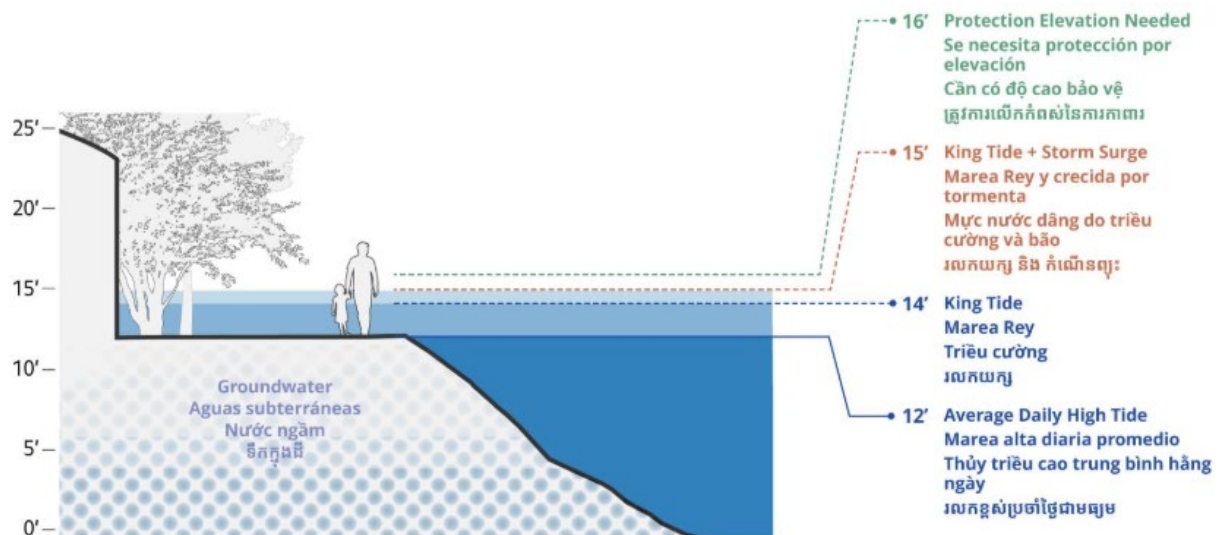
Table 1: Sea Level Rise Projections for the city of Seattle⁹

Condition	2020	2050		2100	
	Water Level (ft) ¹	Projected SLR (ft) ²	Water Level (ft) ^{1, 3}	Projected SLR (ft) ²	Water Level (ft) ^{1, 3}
Daily high tide	0	1	1	3	3
Monthly high tide	1	1	2	3	4
Annual high tide	2	1	3	3	5
100-year storm surge ⁴	3	1	4	3	6

¹ Water level above the average daily high tide (MHHW) in 2020.
² SLR is relative to a 1991 through 2009 average, based on 50-percent probability SLR values for 2050 and 17-percent probability for 2100, using regional climate model 8.5 greenhouse gas model. (Miller et al. 2018).
³ Calculated as 2020 water level plus projected SLR for the given future year.
⁴ Current projections do not include a change in storm surge as a result of SLR.
ft = feet
MHHW = mean higher high water
SLR = sea level rise

City of Seattle sea level rise projections show that up to four feet of flood protection above the existing riverbank will be needed to stop the river from over topping its banks in South Park by 2100, as illustrated in Figure 2.

Figure 2: Projected 2100 protection needed for sea level rise.¹⁰

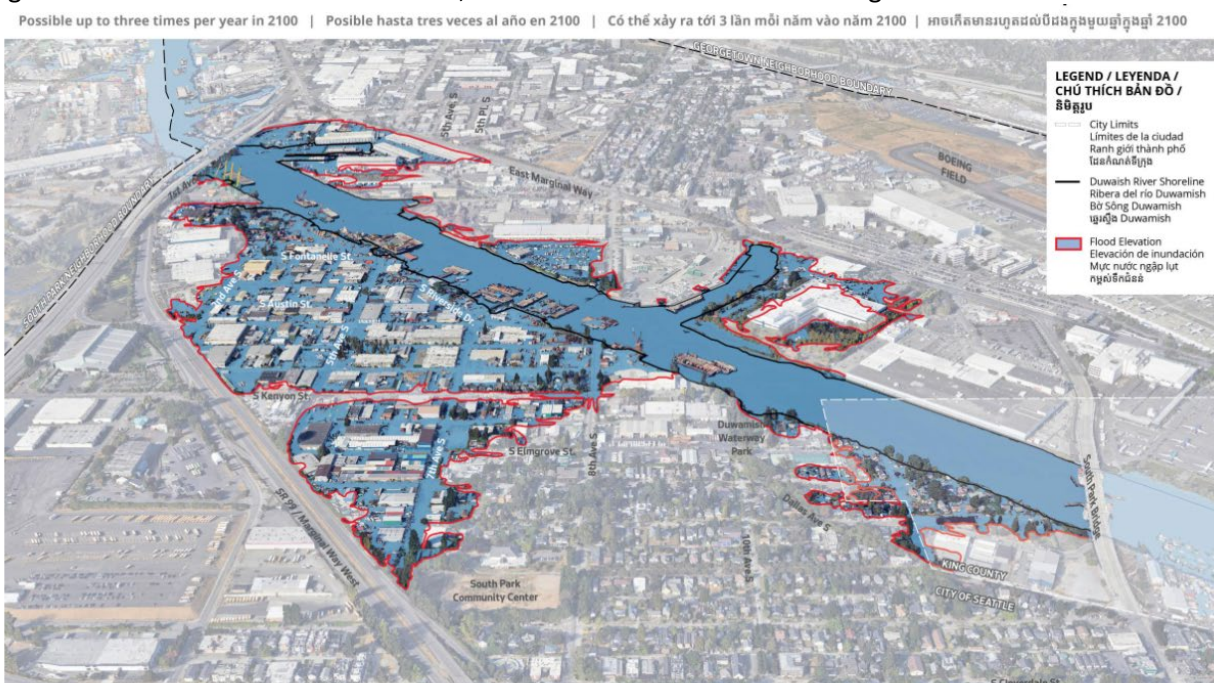


Inundation from King Tide storms, which will happen about three times per year, will be extensive by 2100 without additional protection. See Figure 3.

⁹ City of Seattle, "South Park Sea Level Rise Adaptation Vision Summary" memo, 2021, page 2. [LINK](#).

¹⁰ City of Seattle, Duwamish Valley Sea Level Rise (SLR) Adaptation Visioning. [LINK](#).

Figure 3: 2100 Inundation in South Park, the Sliver is shown in the lower right corner.¹¹



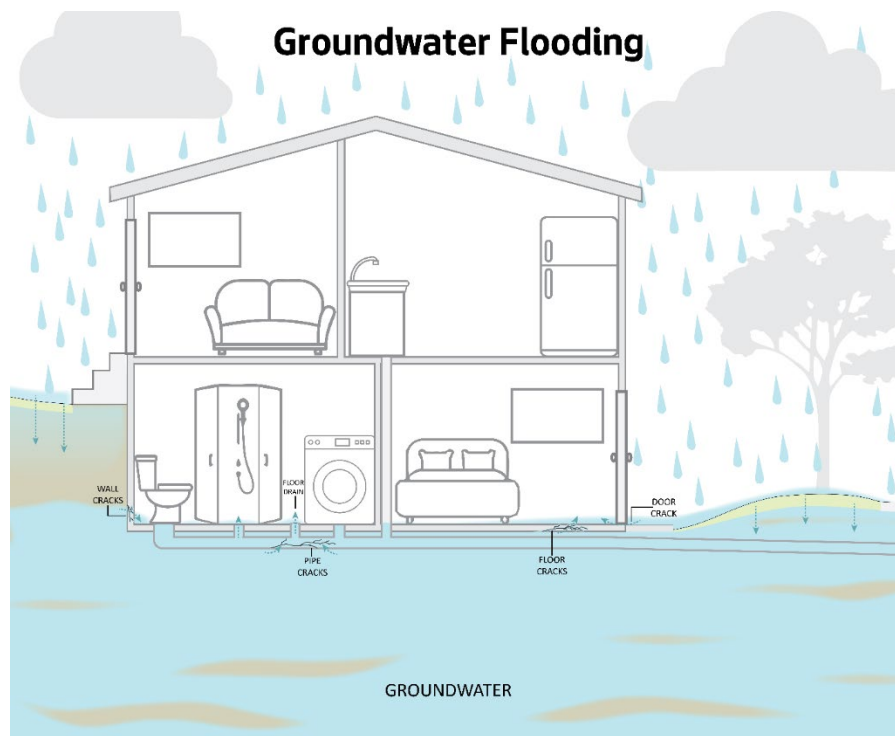
Compounding the flood risk associated with the Duwamish overtopping its banks due to sea level rise is rising groundwater levels associated with increased sea levels. Figure 2 above illustrates how groundwater will rise closer to the surface as the Duwamish rises, which means that groundwater can pool behind any river protection facility during flood events, even if the river water is kept out of an area.

The Wastewater Treatment Division (WTD) is working with the United State Geological Society (USGS) to “develop a detailed hydrogeologic conceptual model and groundwater budget for the Duwamish River valley. This study will establish the framework necessary to construct a numerical groundwater model that could be used to simulate the effects of hydrologic conditions such as sea-level rise, tidal events, flooding events, and rainstorms on the groundwater table and the distribution of salinity in the groundwater system.” The results of this study will help the County and public understand the risk sea level rise in the Duwamish Valley poses to underground infrastructure, such as sewer pipes, as well as the risk to above-ground structures.¹² Figure 4 provides an illustration of how groundwater flooding can damage homes and other buildings as much as riverine flooding.

¹¹ City of Seattle, Duwamish Valley Sea Level Rise (SLR) Adaptation Visioning. [LINK](#).

¹² USGS, Hydrogeologic Framework for Duwamish River Valley, Washington, website. [LINK](#).

Figure 4: Impact of groundwater flooding.¹³



In response to risks posed by sea level rise, the City of Seattle partnered with the South Park community in 2018 to develop the Duwamish Valley Action Plan, which is a community vision for the neighborhoods of South Park and Georgetown.¹⁴ The city is also working with the community on a Duwamish Resilience District, which is a place-based geographic strategy for holistic climate change adaptation planning.¹⁵ While the people living in the Sliver are not residents of Seattle, the community groups working with the city include the

Sliver in their work as they are part of the South Park community.

Currently, the city and community are exploring what adaptation strategies could work for the Lower Duwamish. As the city states, “Adaption can mean protecting by building a structure or landform at the shoreline to hold back flood water; accommodating flooding in some areas by redesigning sites to allow periodic flooding without damage; or retreating by limiting or relocating development in the most flood-prone areas.”¹⁶ Until there is a long-range strategy about which method or methods of adaptation are applied on the Lower Duwamish, some investment decisions are best held, as will be discussed in the remainder of this report. Decision making about the long-term sea level rise adaptation strategies would best include Seattle, the community, and King County.

Area Demographics

The South Park neighborhood is a historically underserved area that has experienced the intersection of air and water pollution, lower income and education levels, and higher levels of poverty than elsewhere in King County. According to the Duwamish Valley Community Health Impacts Analysis, “In comparing residents of the Duwamish Valley to King County, Duwamish Valley residents are more likely to live in poverty, be foreign born, have no health insurance or leisure time, and are more likely to be sick. Georgetown and South Park residents have up to a 13-year shorter life expectancy (at birth) than wealthier parts of Seattle.”¹⁷

¹³ Source: Just Health Action.

¹⁴ Duwamish Valley Action Plan, [LINK](#).

¹⁵ [LINK](#).

¹⁶ Duwamish Valley Sea Level Rise (SLR) Adaptation Visioning. [LINK](#).

¹⁷ Duwamish Valley Cumulative Health Impacts Analysis, 2013, page 2. [LINK](#).

The Sliver is home to approximately 100 people. Land use designations in the Sliver include urban residential medium (4-12 dwellings per acre), commercial outside center, and industrial. There are approximately 40 housing units in the Sliver, 77 percent of which are single detached homes, and the remaining 23 percent are multi-unit buildings. There are approximately 320 jobs in the Sliver.¹⁸

Because of its unique location and political boundaries, demographic data specifically for the Sliver are not available; however, data are available for the South Park neighborhood. Overall, South Park residents are more racially diverse than the rest of King County, and household incomes are lower than King County's median. 2023 census data show that South Park was comprised of 63 percent Black, Indigenous, or people of color (BIPOC), as compared to 43 percent for King County.¹⁹ The data also show that the median household income for South Park was \$83,400 in 2023, which was 32 percent less than the median household income for all of King County (\$122,000).²⁰

Recent Context:

On the morning of December 27, 2022, a historic King Tide²¹ event caused the Duwamish River to overtop its banks, which resulted in extensive flooding in parts of South Park, including the Sliver. The December 2022 King Tide was the most severe flooding the neighborhood had experienced in recent years.²² More than 40 homes and businesses in the South Park neighborhood were flooded, including at least six in the Sliver.²³ Streets along the river and inland several blocks were flooded by river water and stormwater, causing the drainage system to backup. The flooding also caused the sewer system to back up, which resulted in sewer water flowing into some homes in South Park.²⁴ Community members have reported that there was also a combined sewer overflow release that resulted in sewer water mixed with river water when the river overtopped.²⁵ Water began to recede the following morning.

The majority of the flooding affected the northeastern section of South Park, which is downriver and at a lower elevation than the Sliver. There were no sewer backups in the Sliver because affected residents are on onsite septic systems.²⁶ A contributing factor to

Figure 5: S. Southern Street Tide Gate



¹⁸ King County Annexation Databook, 2018, pages 177-178. [LINK](#).

¹⁹ US Census American Communities Survey, 2023, King County demographic data: [LINK](#).

US Census American Communities Survey, 2023, South Park demographic data (census tract 112): [LINK](#).

²⁰ US Census American Communities Survey, 2023, King County income data: [LINK](#).

US Census American Communities Survey, 2023, South Park Income data (census tract 112): [LINK](#).

²¹ King Tides are regular events around the world and are tied to the position of the Earth relative to the sun and the moon. Because they are linked to the lunar cycle, King Tides are predictable and there are readily available King Tide calendars, such as on the Seattle Public Utilities website dedicated to South Park flooding. [LINK](#).

²² Seattle Times, "Duwamish River floods Seattle's South Park neighborhood," December 27, 2022. [LINK](#).

²³ Seattle Public Utilities Staff.

²⁴ Seattle Times, "Duwamish River floods Seattle's South Park neighborhood," December 27, 2022. [LINK](#).

²⁵ Just Health Action staff, August 5, 2025.

²⁶ County staff field visit, March 18, 2025.

roadway flooding in the Sliver was a malfunctioning tide gate on S Southern Street. The flap on the tide gate was not closing properly and allowed river water to enter the storm drainage system. See Figure 5.

Seattle Public Utilities (SPU) provided on-the-ground response to the flooding in all of South Park, including the Sliver. As the neighborhood recovered from the flood event, SPU partnered with community-based organizations to assist residents. Those groups included: Duwamish River Community Coalition, Just Health Action, Khmer Community of Seattle King County, Villa Communitaria, Cultivate South Park, and SeaMar Community Health.²⁷

Out of concern that the neighborhood was vulnerable to the next forecast King Tide, which was predicted to again be larger than usual, SPU built a temporary floodwall made of large sandbags along the river. This floodwall extended into the Sliver. The remaining King Tides for the season were less severe and did not overtop riverbanks.

In 2022 and 2023, SPU and the King County WTD installed grinder pumps in 25 homes in South Park to reduce the risk of sewer backup in the future. Grinder pumps act like garbage disposals to grind up wastewater and/or sewage from a home and pump it into the sewer system. In 2023, SPU also completed the South Park Pump Station, which sits on the bank of the Duwamish in an area inundated in 2022 and is connected to the drainage system to pump water from nearby streets into the river during high tides and flooding.²⁸

Also in 2023, the King County FCD added funding in its mid-year budget for Seattle's flood response, including pumps, an emergency operations staging trailer, flood response operations, and culturally appropriate public education and outreach and materials regarding flood risk in South Park.²⁹

Figure 6: SPU sandbag seawall in the Sliver



²⁷ Seattle Public Utilities, South Park Flooding Webpage. [LINK](#).

²⁸ Seattle Public Utilities, South Park Flooding Webpage, "Recent investments to reduce flooding." [LINK](#).

²⁹ FCD 2023-06. [LINK](#).

Looking to the future, SPU developed a “South Park Readiness & Response Plan,” in collaboration with community-based organizations and residents to create a “standardize processes, responsibilities, and communication for an extreme tide and/or extreme weather event in South Park.” The Response Plan explicitly includes unincorporated King County in its scope and prioritizes collaboration among “local government, residents, business owners, and community partners” to support the goal of “South Park community resilience to flooding events through providing clear procedures to all stakeholders for unified response, leading operation procedures to reduce risk and impacts of flooding and connecting community to preparedness and recovery actions for community implementation.”³⁰

Report Methodology:

This report is the result of collaboration among multiple County agencies, including:

- Department of Local Services (DLS), Director’s Office, and Road Services Division (Roads);
- Department of Executive Services, Office of Emergency Management (OEM);
- Department of Natural Resources and Parks (DNRP), Water and Land Resources Division (WLRD), and Wastewater Treatment Division (WTD);
- Executive Department, Office of Climate, and Office of Performance, Strategy and Budget (PSB), and
- Public Health – Seattle & King County (PHSKC), Environmental Health Division (EHD).

WLRD staff led the report production by convening a workgroup of County staff from the agencies listed above to develop responses to the component pieces of the Proviso. Each division provided its technical expertise in addressing relevant sections of the Proviso. In particular, PSB, EHD, Roads, and WTD provided key analysis responsive to the Proviso.

In March 2025, the Proviso staff group took a tour of South Park and the Sliver, hosted by SPU. SPU staff described their response during the flood and the infrastructure improvements that had been completed and were underway, as well as explaining their ongoing engagement with the residents, businesses, and community-based organizations in the neighborhood.

A draft of the report was shared with the Duwamish River Community Coalition (DRCC), Just Health Action, and Villa Comunitaria. Staff from WLRD and the DLS Director’s Office met with representatives from the DRCC and Just Heal Action to discuss their feedback. Their suggestions were incorporated into the report to the fullest extent possible.

The King County FCD was included in planning sessions and had the opportunity to review a draft of the report. A draft of the report was also shared with SPU, whose staff provided valuable comments and error corrections.

Recommendations in the report stem from the technical expertise of the agencies involved and represent the consensus of the work group.

³⁰ Seattle Public Utilities, “South Park Readiness and Response Plan,” September 2024, page 3.

V. Report Requirements

The sections below are organized to reflect the Proviso Requirements.

A. A description of key action items to address flooding in the neighborhood known as "Sliver by the River"

Most of the actions included below rely on inter-jurisdictional coordination with the City of Seattle. Because the Sliver is a relatively small piece of the larger South Park neighborhood and subject to sea level rise and flooding impacts with along with the entire Lower Duwamish Valley, investments made by the County that are not done in coordination with the city may not be as impactful. Long-term actions that require substantial investment require collaboration with Seattle and community residents to be successful and ensure that public dollars are used effectively and efficiently.

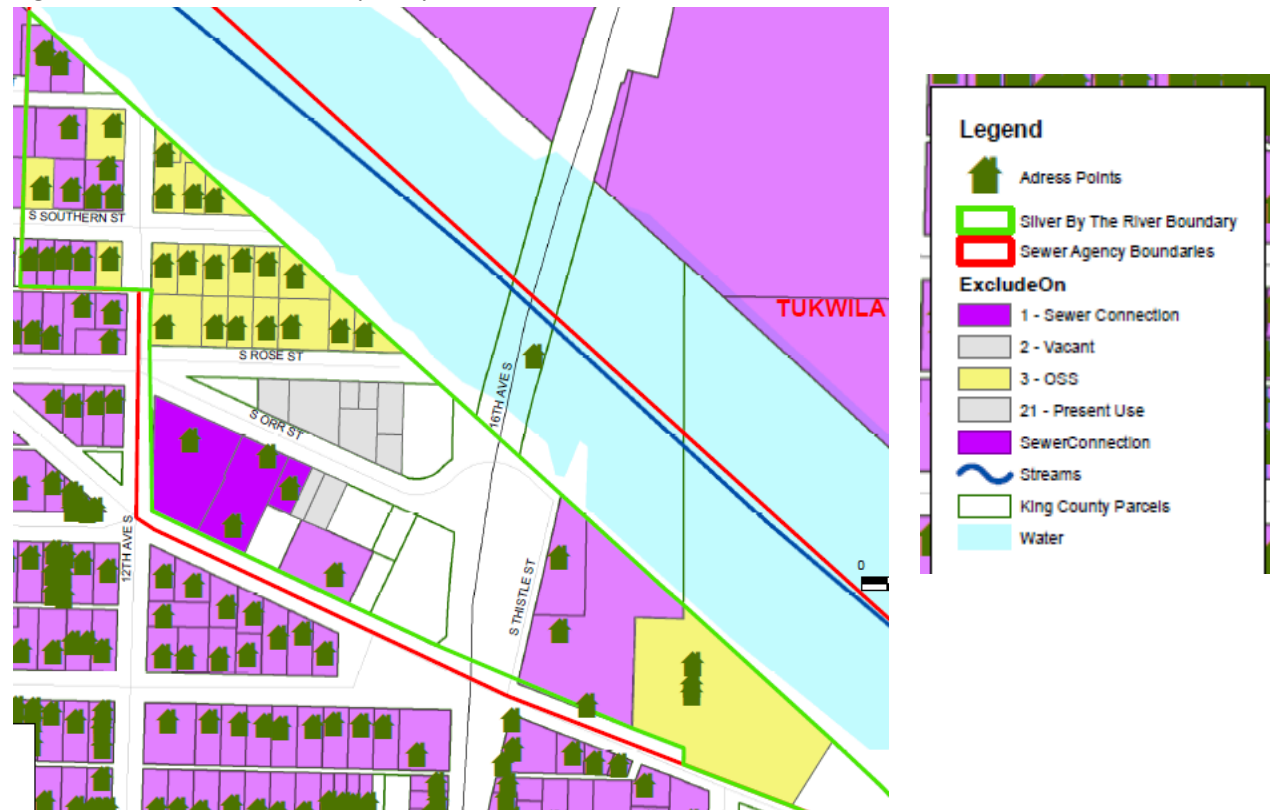
The items below not only address flooding, but also the impacts of flooding.

1. Switching from septic to sewer system

Due to the age of onsite septic systems in the Sliver and the risk posed by projected increases in the frequency and intensity of flooding and rising groundwater levels resulting from sea level rise, converting these systems to sewer is one way to address the impacts of flooding. In particular, failure of septic systems creates a public health risk when human waste enters waterways and groundwater.

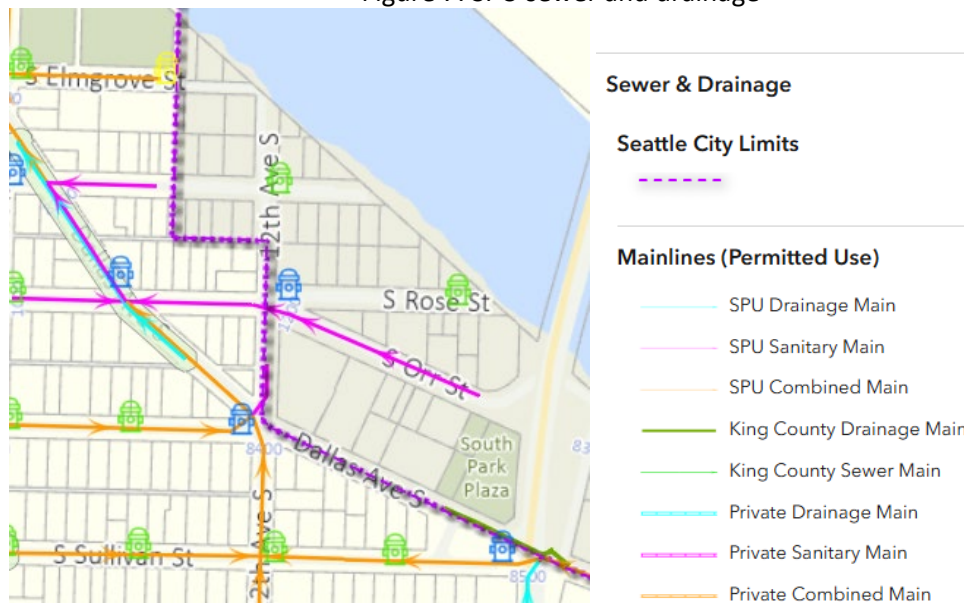
The Washington State Growth Management Act (GMA) and King County Comprehensive Plan state that areas within the Urban Growth Area (UGA) should be served by sewer, and most urban areas within King County are. However, due to historic patterns of annexation and development, 21 residential properties in the Sliver are still on onsite septic systems, as shown in yellow on Figure 6. Of the 21 onsite septic systems, 18 are 60 years old or older, two were repaired in 1999, and one was repaired in 2023. Aging onsite septic systems are more susceptible to failure when the groundwater table rises, as is projected along the Duwamish due to sea level rise.

Figure 6: Parcels on onsite septic systems and sewer



Several parcels within the Sliver are served by Seattle through SPU by a sewer mainline installed under S Orr Street, as shown in Figure 7. This facility was originally privately installed to serve a major business and was subsequently donated to Seattle as an asset. The existing mainline is too far from Rose and S Southern streets to serve homes there and a new mainline would have to be installed as part of any effort to convert these homes from septic to sewer.

Figure 7: SPU sewer and drainage



Public Health – Seattle and King County (PHSKC) has regulatory oversight over permitting, operations, and maintenance of onsite septic systems within King County. According to PHSKC staff, converting onsite septic systems to sewer is complicated and would require, at a minimum, coordination between PHSKC as the onsite septic systems regulatory agency and SPU as the utility. Connecting residences in the Sliver to sewer will likely require expansion of SPU's service area and an extension of the main line currently running through the Sliver.

King County Board of Health Title 13 allows replacement of onsite septic systems if the new onsite septic systems comply with current requirements;³¹ however, due to small lot sizes and disturbed soils, it is unlikely that replacement of onsite septic systems can be used to achieve adequate wastewater treatment in the Sliver, according to PHSKC staff. The County provides a variety of resources to support and assist onsite septic owners in maintaining and replacing their septic systems. These include resources for homeowners, septic professionals, and real estate agents.³²

Connecting these residences to sewer could provide long-term wastewater treatment, protect public health by reducing the risk of raw sewage reaching the surface or nearby water ways, and help the community be more resilient during future emergencies. However, the outcome of the groundwater analysis sponsored by WTD may indicate the sewer lines are also vulnerable when the groundwater table rises. Further, investment decisions of the magnitude needed in the Sliver should be part of the long-term adaptations strategy currently being developed.

³¹ [LINK](#).

³² PHSKC, Onsite sewage/septic system program. [LINK](#).

2. Drainage or infrastructure improvements

County infrastructure in the Sliver is limited to roadways and tidal gates. Maintaining this infrastructure in good working order so that it functions as intended will help reduce the impact of flooding.

Roads maintains three tide gates, as well as one mile of roadway in the Sliver. The tide gates are meant to stop the Duwamish River from flowing into the storm drainage system during periods of high water. The three tide gates in the Sliver are:

- S Southern Street: 18-inch-diameter line corrugate polyethylene pipe (LCPEP). This tide gate failed during the December 2022 flood, allowing river water to flow into the street drainage system, causing flooding in the Sliver. See Figure 8.
- S Orr Street: 4-inch-diameter concrete pipe. No known issues.
- S Thistle Street: 24-inch-diameter concrete pipe. No known issues.

Replacing the tide gate at S Southern Street so that it will close when the river rises and thereby prevent river water from flowing into the stormwater drainage system, would help to address roadway flooding during periods of high water.

Figure 8: S Southern Street Tide Gate



3. Annexation

While annexation of the Sliver into Seattle will not directly reduce flood risk, it would help to clarify jurisdictional roles and responsibilities on the Lower Duwamish. Such clarity would make the community's ability to navigate government services and address issues such as flood preparedness and response easier and simplify long-term sea level rise planning.

Annexation is the process by which an unincorporated area legally becomes part of an incorporated area (a city) and is a component of the GMA. According to the Municipal Research Services Center, "A major goal of the GMA is to reduce urban sprawl by encouraging development in urban areas where adequate public facilities already exist or where such facilities can be more efficiently provided (RCW 36.70A.020(1) and (2)) ... Significantly, the GMA further states that 'it is appropriate that urban government services be provided by cities, and urban government services should not be provided in rural areas.' (RCW 36.70A.110(3))"³³ King County's Comprehensive Plan and Countywide Planning Policies contain policies supporting annexation of urban unincorporated areas.

The Sliver is within King County's Urban Growth Area (UGA) and an example of why the GMA envisioned incorporation of all areas within the UGA – it is a small, isolated urban area that is

³³ Municipal Research Services Center (MRSC), Annexation by Washington Cities and Towns, June 2020, p2. [LINK](#).

challenging for the County to serve. Further, the 100 residents in the Sliver do not distinguish themselves from the over 4,000 residents in the South Park neighborhood, but the two are served by different governments with varying levels of ability to meet their needs. As a result, residents are often unclear as to which government they should direct their concerns and from which they should expect a response.

The authority to annex an area resides with cities and residents. Cities are required to address annexation issues as part of their comprehensive planning, including identifying specific Potential Annexation Areas (PAAs) and establishing consistent criteria for evaluating proposed annexations. Once a city is ready to move ahead with an annexation, the residents of the PAA vote on whether they want to join the city or remain in the unincorporated area. It is not unusual for annexations to fail at the ballot because the majority of residents prefer to remain in unincorporated King County.

While annexation requires an interlocal agreement (ILA) between a county and a city defining the transfer of assets from one to the other, a county cannot make a city annex an area, nor can it instruct residents to vote for or against annexation. King County is actively engaged in supporting cities that may want to annex a PAA by providing policy and technical analysis and collaborative public engagement support when requested, as well as through negotiating the required ILA.

The annexation process is administered by the King County Boundary Review Board (BRB), which provides independent, quasi-judicial review of proposals for creation of, or changes to, boundaries by cities and by special-purpose districts (e.g., fire districts, and water/sewer districts) within the county. Through this review process, the board works to support logical growth in the communities of King County.³⁴ The County provides comments at the BRB about individual city annexation proposals.

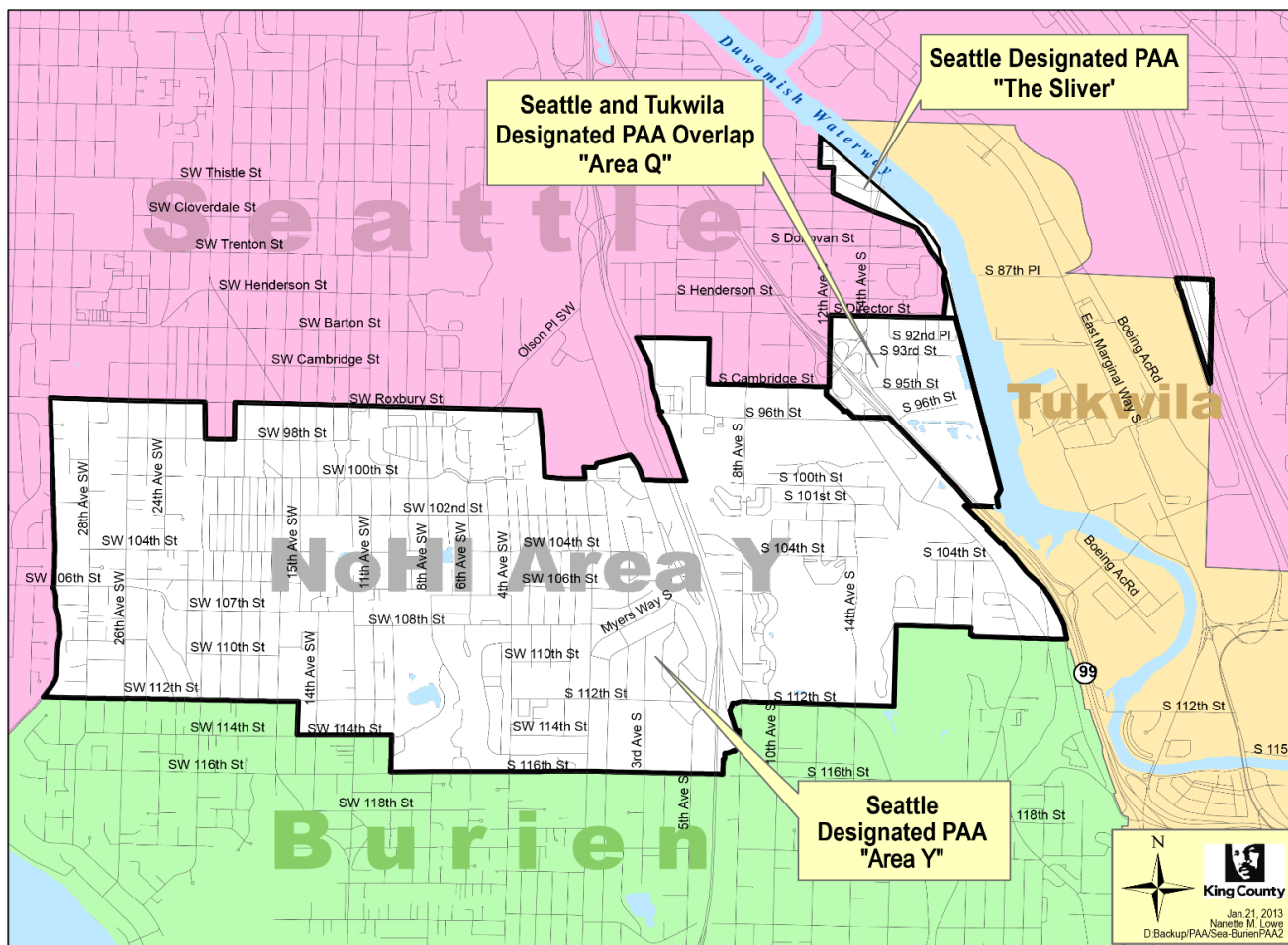
The Sliver is part of the North Highline PAA. Cities interested in annexing parts of the North Highline PAA have successfully petitioned the BRB to create smaller area boundaries within the PAA consistent with existing neighborhoods. See Figure 9.

- Area Y – The large residential portion of the North Highline PAA is colloquially referred to as “White Center.” In addition, Area Y includes all or part of the neighborhoods Beverly Park, Glendale, Roxhill, and Top Hat.
- Area Q – The industrial portion of the North Highline PAA is colloquially referred to as “The Triangle.” The Triangle includes the Delta Marine yacht building company, several office parks, and other businesses.
- The Sliver – The mixed-use portion of the North Highline PAA that is adjacent to the South Park neighborhood along the Duwamish River. The County-owned South Park Bridge connects the east and west sides of the river, with one half touching down in the PAA and the other touching down in Tukwila.

³⁴ RCW Chapter 36.93: [LINK](#)

King County Boundary Review Board: [LINK](#)

Figure 9: North Highline Potential Annexation Area



In August 2015, Seattle received permission from the BRB to move forward with an annexation of Area Q plus the Sliver, which Seattle called the “Duwamish Annexation.”³⁵ It is worth noting that Seattle indicated at the time it did not intend to take ownership of the County-owned South Park Bridge as a part of this annexation. Seattle has not acted on the Duwamish Annexation proposal in the intervening years.

Annexation of the Sliver into Seattle would clarify jurisdictional responsibilities and alleviate confusion among residents, including for flood response and long-term planning for sea level rise. Ultimately, annexation of the Sliver will need a partnership among Seattle, King County, and the community to succeed.

4. Home buyouts

³⁵ King County Boundary Review Board, File Number 2358.

Home buyouts are a strategy employed by King County, and across the country, to purchase homes that are subject to regular flooding, specifically those in the FEMA floodplain or on the repetitive-loss list. It is a cost-effective way to remove people from harm's way, reduce the burden on government to respond to floods threatening private residences, and create opportunities for flood risk reduction and habitat improvement projects.

Since its creation in 2007, the King County FCD program acquires property only from willing sellers and pays a fair market price based on a professional appraisal.³⁶ All structures on the property are demolished after purchase and the land is returned to open space. The land goes into the County's land inventory, where it is maintained by WLRD. The FCD funds maintenance of the properties through its ILA with the County. The County has no resources for home buyouts separate from FCD funds.

The Federal government also funds home buyouts through the FEMA Flood Buyout program, which is administered at the state level.³⁷ King County does not currently utilize the FEMA Flood Buyout program as it is more cumbersome to administer and allocates fewer dollars than are provided through the FCD's support of King County's program.

Given the combination of coastal and urban flooding, and the projected impacts of climate change on low-lying areas such as the Sliver, home buyouts are potentially valuable tools for flood risk reduction. However, there are logistical issues to consider when approaching home buyouts in the Sliver, and elsewhere in the county:

- The program relies on willing sellers, and it is unclear how many people in the Sliver would be interested in selling their homes to the government.
- Funding is needed for both the initial purchase and ongoing maintenance of the property.
- Vacant structures are an attractive nuisance and people often break in to steal wiring or other saleable components. People also squat in them, which can lead to disruption for neighbors, an increase in illegal activities, and damage that makes the structures unsafe for anyone sheltering in them. As a result, the County demolishes homes after they are purchased.
- If home buyouts happen piecemeal in the Sliver, they could result in random vacant lots that disrupt the character and cohesion of the neighborhood, and empty lots that attract illegal dumping and camping.
- South Park residents are disproportionately low-income, immigrants and refugees, and renters, which makes them especially vulnerable when their homes and lives are disrupted. Buying homes could benefit homeowners but may be devastating for renters who would be displaced. As a result, any home buyout program in this area would have to be pursued thoughtfully and include a strategy to protect renters and help maintain community belonging.

For these reasons, plus the potential cost of a large-scale buyout program, any home buyout effort should be considered as part of a larger strategy for climate adaptation in the Lower Duwamish Valley to be developed in partnership with Seattle, King County, and the community.

³⁶ King County Flood Buyout Program. [LINK](#).

³⁷ FEMA Flood Buyout Program. [LINK](#).

5. Any other action items from the Flood Management Plan as applicable

The 2024 King County Flood Management Plan, adopted by the County Council, is the policy document guiding how King County plans for and seeks to reduce the impact of flooding.³⁸ The Plan includes a description of flood risk across the county, a review of flood risk reduction activities, a comprehensive risk mitigation strategy, an action plan for activities within King County's purview, and an implementation plan. The 2024 Plan is the guiding policy document for King County's preparation for, and response to, flooding and can be used by cities as they consider how to prepare for and respond to flooding in their jurisdictions.³⁹

The scope of the Flood Management Plan is countywide and many of the actions it includes are implemented at a county scale. Some of these actions could be targeted to address the Sliver and all would or could be implemented with partners. Table 2 includes all the King County actions identified in the Plan's Comprehensive Risk Mitigation Strategy and Action Plan that are relevant to the Sliver.

Table 2: King County Actions

Description of Action	Plan Page #	How Action Addresses Flooding
Conduct flood vulnerability study of all flood-prone structures in unincorporated King County and recommend mitigation strategies.	4-10	Such a study would increase understanding of the areas most at risk from flooding in all areas of the county. Seattle's Duwamish Valley Sea Level Rise Adaptation Visioning project has done much of this work for the Sliver.
Expand King County's Home Elevation Program by exploring partnership opportunities to expand the home elevation program to all flood hazard areas where conditions are favorable for elevations.	4-18	Home elevations physically lift homes so that the first floor of living space is above the base flood elevation for the location. This action is appropriate for rivers with relatively slow-moving flood waters, such as the Duwamish. Moving living spaces above the flood levels means that homes experience less damage and greater resilience during floods. In the Sliver, there are four homes in the FEMA floodplain that are eligible under the terms of the King County Home Elevation Program.
Develop a pre-acquisition process for evaluating factors such as equity and cultural interests affected by potential acquisition, and the effects to neighborhoods and community of converting private property to public open space.	4-19	This action is a precursor to a successful home buyout program as it would help the County design a process respectful of and sensitive to neighborhood concerns.
Relocation planning to identify high-risk properties or	4-20	This action is a component of a successful home buyout program as it would help the

³⁸ Ordinance 19820. [LINK](#).

³⁹ 2024 King County Flood Management Plan. [LINK](#).

Description of Action	Plan Page #	How Action Addresses Flooding
neighborhoods where managed retreat may be preferred or necessary.		County design a process respectful of and sensitive to neighborhood concerns. It is potentially part of a sea level rise adaptation strategy.
Encourage the purchase of flood insurance and collaboratively work with partners to design a social marketing campaign or other similar effort with a goal of increasing flood insurance policies held in King County.	4-20	Flood insurance is an important way for people to recover when flooding damages their homes or businesses. Greater adoption of flood insurance would create greater resilience in the community.
Emergency Coordination by the Office of Emergency Management with other jurisdictions.	4-25	During a flood event, coordination among governments and with the public is essential to protect people's lives and safety.
Emergency Public Information to facilitate local and regional message coordination.	4-25	During a flood event, accurate and timely information is essential to protect people's lives and safety.
Continue to provide flood warning services , including operating a Flood Warning Center, performing field flood monitoring, coordinating with local emergency management offices and first responders, and providing notifications to the public and media.	4-27	The King County flood warning center monitors river water levels on rivers through a series of river gages around the county during flood events. It dispatches flood patrols to inspect flood facilities to identify areas where emergency actions might be needed. It is also a reliable source of up-to-date information for residents through the flood warning app and a phone line people can call to ask questions.
Provide translated educational materials and emergency information , including King County agency contacts during times of emergency.	4-33	Thirty percent of people in King County over the age of five speak a language other than English at home. ⁴⁰ Reaching people in their native language to help them prepare and respond to a flood emergency is critical to their ability to stay safe and to seek assistance.
Improve Access to Flood Preparedness Materials by collaboratively engaging diverse audiences to co-create effective flood preparedness outreach.	4-33	Preparing print, online, or video materials in a way that will make sense and resonate with community members is a cornerstone of effective communication. Working with communities to co-create those materials will help improve flood preparedness, response, and recovery.
Tidal/riverine flooding connections by providing resources about the interdependencies among	4-34	The December 2022 King Tide demonstrated how complex factors, such as heavy rain, tidal patterns, storm surges, and barometric pressure, combined to create the largest flood

⁴⁰ U.S. Census, American Communities Survey, 2023, [LINK](#).

Description of Action	Plan Page #	How Action Addresses Flooding
riverine, tidal, and coastal influences on flooding, including potential impacts and roles and responsibilities for preparedness and response.		event in recent memory. A better understanding of how these factors interact will help the city, County, and South Park residents better predict and prepare for future events.
Flood resilience improvement program by developing a comprehensive program to raise awareness about flooding, increase flood preparedness, reduce flooding impacts, and increase community resilience.	4-36	Flooding is unavoidable and is projected to worsen in coming decades. In this context, it is more important than ever to have plans and tools in place to help people recover from flood events. This resiliency will mean that people can return to their normal lives more quickly, with less cost and fewer impacts.

B. Estimated costs, external funding, and implementation timeline

C. A plan to maximize external funding for implementation

D. A timeline to implement each of the actions

This section of the report combines the above three Proviso requirements.

Cost estimates, potential external funding sources, and the time for implementation vary among the different means of addressing flooding in the Sliver. Some of the actions identified in the Proviso and the Flood Management Plan are already under way and will require no additional funding, while others would require millions to implement with no clear funding partner. For those actions that are noted as not funded, DNRP and PHSKC plan to maximize existing funding sources and seek grant funding whenever possible, as delineated in Table 4 below. All actions, particularly those with a large cost, are best considered as part of a sea level rise adaptation strategy and, until such a strategy is in place, it is difficult to project when and how the larger actions would be implemented.

Table 4: Cost estimates, external funding, and implementation timelines for actions to address flooding

Action	Cost Estimate	External Funding	Implementation Timeline
Septic to sewer conversion	<ul style="list-style-type: none"> Converting onsite septic systems replacement averages and estimated \$41,000 per system. Mainline extension ranges from \$500 to \$1,200 per lineal foot. Total cost per property owner is between \$84,000 and \$124,000, including the mainline.⁴¹ 	Public funding is often unavailable for these types of projects and is currently the responsibility of property owners. ⁴²	Without a funding source, there is no timeline for converting Sliver onsite septic systems to sewer. Further, this action should be considered as part of a sea level rise adaptation strategy.
Drainage improvements	\$15,000 to replace the S Southern Street Tide Gate	None needed	The tide gate was replaced in July 2025 using existing Roads budget.
Annexation	County responses to proposed annexations are coordinated by existing staff in PSB and no new costs are anticipated.	None needed	The timing of annexation is dependent on decisions by the community and City of Seattle, which are unknown at this time.
Home buyouts	<ul style="list-style-type: none"> Assuming a median house value of \$570,000 and four houses in the FEMA floodway eligible for buyouts, total cost is \$2.3 million.⁴³ A holistic buyout strategy as part of a sea level rise adaptation strategy would be substantially more costly. 	Depending on the scale of buyouts and how the land will be used, there are four potential funding sources: <ul style="list-style-type: none"> FEMA Flood Hazard Mitigation grant funding. FCD acquisitions, subject to budget approval, or Flood Reduction Grants. 	Whether and to what extent a sea level rise adaptation strategy includes retreat and habitat restoration will govern the size, specific location, and timing of a home buyout program implementation.

⁴¹ Greene Economics LLC, "The Cost of Addressing Failing Septic Systems in King County, Executive Summary," January 17, 2024. [LINK](#).

⁴² Component costs of septic to sewer conversion include: permit and connection fees, general facility and capacity charges, construct of side sewers, and decommissioning the onsite septic tanks.

⁴³ Median homes value in South Park per Zillow.com as of July 2025.

Action	Cost Estimate	External Funding	Implementation Timeline
		<ul style="list-style-type: none"> King County Land Conservation Initiative (LCI), if part of a conservation project and approved through the LCI planning and grant process. State grants such as Salmon Recovery Funding Board and Recreation and Conservation Office, if part of a habitat project. 	
Conduct flood vulnerability study of all flood-prone structures in unincorporated King County and recommend mitigation strategies.	<ul style="list-style-type: none"> Such a study could be built into any sea level rise adaptation analysis in South Park. No cost estimate available. 	Most likely grant funding, which could be pursued in partnership with Seattle.	1-5-year timeline, according to 2024 Flood Management Plan.
Expand King County's Home Elevation Program by exploring partnership opportunities to expand the home elevation program to all flood hazard areas where conditions are favorable for elevations.	<ul style="list-style-type: none"> The program funds each home elevation at a rate of up to \$206,500 in 2025. Elevating four homes in the Sliver would cost \$826,000, if done at the 2025 rate. Homeowners bear all costs above the reimbursement rate and must ensure their homes are up to code. 	<ul style="list-style-type: none"> King County's Home Elevation program is funded by the FCD and is subject to annual budget approval. FEMA Flood Hazard Mitigation grant program is also available, but more difficult to manage than FCD funding. 	<ul style="list-style-type: none"> In its 2025 budget, the FCD expanded the home elevation program it funds via King County to include the Sliver. In May 2025, letters were sent to the four homes in the Sliver alerting them that they are eligible for the program. No homeowner has expressed interest as of August 2025. Community-based organizations have indicated home elevations are of interest to the community and County staff will meet with them as requested.

Action	Cost Estimate	External Funding	Implementation Timeline
Develop a pre-acquisition process for evaluating factors such as equity and cultural interests affected by potential acquisition, and the effects to neighborhoods and community of converting private property to public open space.	<ul style="list-style-type: none"> This would be a countywide process that could be tailored to specific neighborhoods. No cost estimate available as the work has not begun. 	Most likely grant funding but could include contributions from various County funding sources that make acquisitions and the FCD, if interested.	<ul style="list-style-type: none"> 1-5-year timeline, according to 2024 Flood Management Plan. For the Sliver, this work would best be conducted in partnership with Seattle and the community in the context of sea level rise adaptation.
Relocation planning to identify high-risk properties or neighborhoods where managed retreat may be preferred or necessary.	<ul style="list-style-type: none"> No cost estimate available as the work has not been scoped. 	Seattle is currently funding the Duwamish Action Plan and Resilience District planning in South Park.	<ul style="list-style-type: none"> 5-10-year timeline, according to the 2024 Flood Management Plan. For the Sliver, this work would best be conducted in partnership with Seattle and the community in the context of sea level rise adaptation.
Encourage the purchase of flood insurance and collaboratively work with partners to design a social marketing campaign or other similar effort with a goal of increasing flood insurance policies held in King County.	<ul style="list-style-type: none"> Educational outreach regarding flood insurance is part of ongoing King County work as service provider to the FCD. No discrete cost available. The County's 2025 budget includes funding for a grant program to pay for flood insurance in South Park. The County contracted with the DRCC for this work, and they identified 10 homes in the Sliver interested in flood insurance and received estimates of an average cost 	No external partners have been identified.	<ul style="list-style-type: none"> Ongoing. Flood insurance messaging appears in communications materials, including in the annual Be Flood Ready brochure, prepared on behalf of the FCD, and the County's small flood preparedness campaign. This includes messages on social media (Facebook, Nextdoor), blog posts, a communication toolkit for local jurisdictions, and articles in newsletters (like Unincorporated Area News, WRIAs, etc.).

Action	Cost Estimate	External Funding	Implementation Timeline
	of \$2,000 per home for National Flood Insurance Program coverage.		
Emergency coordination by the Office of Emergency Management with other jurisdictions.	Part of ongoing mission of OEM. No discrete cost available.	OEM seeks federal funding where appropriate.	OEM coordinates with Seattle for emergency preparation and response in the Lower Duwamish River as a regular, ongoing part of its operations.
Emergency public information to facilitate local and regional message coordination.	Part of ongoing mission of OEM. No discrete cost available.	OEM seeks federal funding where appropriate.	OEM coordinates with Seattle for emergency preparation and response in the Lower Duwamish River as a regular, ongoing part of its operations.
Continue to provide flood warning services including operating a Flood Warning Center, performing field flood monitoring, coordinating with local emergency management offices and first responders, and providing notifications to the public and media.	<ul style="list-style-type: none"> The 2025 FCD operating budget includes \$1.3 million for the Flood Warning Center and related flood preparedness planning. Actual costs vary based on the severity of the flood season. The program is countywide, and costs are not allocated or invested at the basin level. The FCD's 2023 budget allocated \$625,000 to add the Duwamish River to the flood warning app and to create a phase system for the Duwamish.⁴⁴ 	Part of the FCD operating budget, subject to annual approval.	<ul style="list-style-type: none"> The flood warning app was updated for the start of the 2024 flood season and includes river gages on the Duwamish for the first time.⁴⁵ In addition, the outgoing message on the flood warning center phone line has been updated to direct people to SPU for current information about flooding in South Park. The County is exploring with the FCD how to best leverage SPU flood warning systems to meet the needs of residents of the Sliver and to not create

⁴⁴ Resolution FCD2022-13. [LINK](#).

⁴⁵ Flood Warning App. [LINK](#).

Action	Cost Estimate	External Funding	Implementation Timeline
			unnecessary jurisdictional confusion.
Provide translated educational materials and emergency information , including King County agency contacts during times of emergency.	<ul style="list-style-type: none"> Costs are included as part of communications budgets for individual projects and deliverables. No discrete cost available. 	For flood-related materials, the FCD funds through its ILA with the County.	<ul style="list-style-type: none"> Ongoing. The annual flood brochure is available in 23 languages, including English, online. Print copies and other translations are available upon request. The brochure also has in-language accommodation information printed on it, which is standard. Availability of the brochure in other languages is advertised on Facebook, translated into simplified Chinese and Spanish. The update to the flood warning app in 2024 includes translation into over 200 languages.
Improve access to flood preparedness materials by collaboratively engaging diverse audiences to co-create effective flood preparedness outreach.	A project around co-creation of effective outreach is not yet scoped and no cost estimate is available.	Could be grant funded or in partnership with the FCD.	<ul style="list-style-type: none"> 1-5-year timeline, according to the 2024 Flood Management Plan. The County is open to exploring this option with South Park community-based organizations and Seattle to improve flood preparedness materials.
Tidal/riverine flooding connections by providing resources about the	<ul style="list-style-type: none"> In the Lower Duwamish, this work is under way through a combination of City of Seattle 	Most likely grant funding.	<ul style="list-style-type: none"> 1-5-year timeline, according to the 2024 Flood Management Plan.

Action	Cost Estimate	External Funding	Implementation Timeline
interdependencies among riverine, tidal, and coastal influences on flooding, including potential impacts and roles and responsibilities for preparedness and response.	resilience planning and the WTD groundwater study. <ul style="list-style-type: none"> Additional work may be identified based on the results of those studies. Cost is unknown. 		<ul style="list-style-type: none"> Best done in conjunction with Seattle and the community to inform adaptation strategies.
Flood resilience improvement program by developing a comprehensive program to raise awareness about flooding, increase flood preparedness, reduce flooding impacts, and increase community resilience.	No discrete resilience improvement program has been scoped and no cost estimate is available.	Could be grant funded or in partnership with FCD.	<ul style="list-style-type: none"> 1-5-year timeline, according to the 2024 Flood Management Plan. In the Sliver, best done in conjunction with Seattle and the community to inform adaptation strategies.

E. Any code or policy changes needed

Because the actions identified in the report are already defined in existing King County Code or policies or are operating decisions, no Code or policy changes are included with this report.

F. Any needed intergovernmental partnerships

Given the small size of the Sliver and its population and that the area is connected geographically and culturally with the South Park neighborhood, ongoing collaboration and partnership with the City of Seattle is necessary to effectively serving the residents of the Sliver to address flooding. To that end, the City and County should jointly recognize the necessity of formal, ongoing collaboration around the issues of sea level rise and flooding, which are inextricably linked in the South Park neighborhood and the entire Lower Duwamish corridor. This joint, comprehensive approach should encompass addressing roles and responsibilities, and how each will contribute to developing long-range sea level adaptation and flood response plan.

In addition, the incoming County Executive may wish to engage Seattle and the Southpark community to explore taking up the annexation process.

Finally, continuing the foundational relationship between King County and the FCD is critical to its work in flood risk reduction for all jurisdictions in the county.

G. A plan for community engagement

The DLS is dedicated to making sure residents in unincorporated King County have access to responsive, equitable, and effective local government services. One strategy to achieve this goal is the Community Service Area (CSA) program, which, as defined in code, facilitates better understanding and participation of unincorporated King County communities in their local government to improve County services provided to these residents.⁴⁶ This is accomplished through a number of different strategies, including a dedicated County employee (CSA Liaison) who serves as the liaison to residents in each CSA and facilitates service delivery in the CSA. As of 2025, there are two fulltime CSA Liaisons, covering both rural and urban unincorporated King County.

CSA Liaisons are available for one-on-one meetings with community members, hold regular office hours, participate in local community-based organization meetings, attend other agency meetings, and represent the County in many of the local events in the area. In the North Highline PAA, these activities typically take place in or near the White Center business district, which is not geographically contiguous with the Sliver. Consequently, these engagement options have not been well-attended by Sliver residents.

⁴⁶ K.C.C.2.16.055.D.1. "The community service area program shall develop and implement programs and services to help all residents of unincorporated King County be more knowledgeable of, better served by and heard by King County departments and agencies. The community service area program shall work with all county departments and agencies whose services, programs and projects are of interest to unincorporated area residents, to promote successful public engagement."

As of July 2025, DLS has assigned a CSA Liaison to the Sliver and added the following engagement opportunities in response to requests from Sliver residents and community-based organizations for more King County engagement opportunities (see Table 6).

Table 6: Engagement efforts

Engagement	Frequency	Meeting Time & Location	Attendees	Purpose
Community Office Hours	Bi-weekly to start, monthly when demand decreases	The Scene at South Park, 1 st and 3 rd Mondays, 1:00-3:30 pm	CSA Liaison	Customer service: inform community members of County services, assist with system navigation, and answer questions.
Seattle Public Utilities South Park Flooding Preparedness Meeting	Monthly, October – March	Time and location changes depending on resident availability	CSA Liaison	Hear flooding concerns, provide DLS updates, and share County flood control information.
Meetings with South Park Community Groups	Twice per year per group	As scheduled, community-based organization's meeting locations	CSA Liaison	Attendance at community group meetings to listen and address concerns.
Table at Community Events: Duwamish River Festival, SOPA-SUPA	TBD	TBD	CSA Liaison	Meeting people where they are and being present in the community.

At office hours, community events, or other community meetings, CSA Liaisons have access to an interpretation service to facilitate communication. The intent is to hear from residents what they are seeing in their neighborhood, understand their needs, and help connect them to available County resources. At these meetings, CSA Liaisons share information and materials from County agencies, which include information on flood preparation and onsite sewage/septic system maintenance for homeowners. Much of this material is available in multiple languages or can be translated upon request.

In response to a community concern or need, CSA Liaisons invite representatives from other County agencies to community meetings or office hours. If the County is working with a community to develop plans for an area, these engagement opportunities, in addition to subject-specific meetings, are used to gather residents' thoughts and opinions to help inform County services, programs, and plans. DLS is evaluating whether to conduct a survey of Sliver residents to better understand their general needs, as well as their specific flood-related needs. Such a survey would be most successful when done in collaboration with community-based organizations active in South Park.

For the Sliver, DLS attends meetings with SPU that were initiated with residents so they can obtain flood management information and participate in the development of SPU's flood control. These meetings, and others, are coordinated in partnership with community-based organizations in South Park that work to connect residents to government staff and ensure that the community's voice is central to decision making.

VI. Conclusion/Next Steps

Sea level rise projections show the need for an additional four feet of flood risk projections along the river by the end of the 21st century and groundwater analysis indicates the neighborhood will experience ongoing issues that threaten underground infrastructure and could undermine buildings above ground.

Some of the strategies discussed in this report can or are being implemented as standalone actions:

- The tide gate at S. Southern Street was replaced in July 2025.
- The County's Office of Emergency Management interfaces with the City of Seattle and provides emergency response as part of its mission.
- Home elevation offers have been made to the four households in the FEMA floodplain in the Sliver, although none have expressed interest in the program, all would have to be evaluated as to whether their homes are structurally appropriate for elevation.
- Through its ILA as the primary service provided for the FCD, the County prepares flood preparedness materials that promote flood insurance and other ways residents can prepare for flooding.
- Educational and emergency information materials are regularly translated into multiple languages to meet community needs to improve access. The County is interested in exploring how those materials can be improved through co-creation with the community.
- The Flood Warning Center was expanded to include the Lower Duwamish in 2024, with the addition of the river to the app. Further conversation with the FCD and SPU is needed to evaluate what other improvements might serve the community.
- The assignment of a CSA Liaison to the Sliver will help to connect Sliver residents more easily to County services and also create a point of contact to help coordination between the city and the County.

Other strategies, such as septic to sewer conversion, home buyouts, and home elevations, require substantial investments and are more likely to be successful if implemented in collaboration with the community and Seattle. As the process of preparing this report has demonstrated, all three parties are invested in the work and prepared to move forward with it. The County is committed to expanding its partnership with the community and Seattle to meet the substantial challenges facing the Sliver in future decades.