

# Reconnect South Park

## Potential Futures Definition Technical Memorandum: *Considerations, Risks, and Potential Fatal Flaws*

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## Contents

Introduction .....	1
Definition of Potential Futures .....	3
Potential Futures .....	5
Planning Context.....	10
Land Use and Urban Form .....	11
Community Infrastructure .....	12
Vehicular Travel Patterns.....	13
Equity and Access to Opportunity .....	14
Screening of Considerations and Risks by Category.....	15
Infrastructure.....	15
Environmental .....	19
Regulatory .....	30
Operations .....	33
Fatal Flaw Screening Summary Table .....	44
Conclusion and Next Steps.....	45
Next Steps.....	45

## Figures

Figure 1: Reconnect South Park study area.....	4
Figure 2: Rendering of a potential Reroute and Reclaim option looking northwest.....	5
Figure 3: Rendering of a potential view of the "Bridges and Trails" option looking northwest.	6
Figure 4: Rendering of a potential Boulevard option looking northwest. ....	7
Figure 5: Rendering of a potential Tunnel option looking northwest. ....	8
Figure 6: Rendering of the existing South Park street network looking to the northwest. ....	10
Figure 7: Existing Land Use and Freight Network .....	11
Figure 8: Community Assets.....	12
Figure 9: Peak Hour / Peak Direction Vehicle Volumes (Source: City of Seattle, 2024).....	13
Figure 10: Top Origins and Destinations by Each Corridor (Northbound AM) (Source: Streetlight) .....	13
Figure 11: Northbound SR 99 Vehicle Volume (4AM-8PM).....	14
Figure 12: Existing Utilities .....	18
Figure 13: Contaminated Sites (Source: WA Department of Ecology) .....	21
Figure 14: Landmarks and Historic Properties (Source: WA Department of Archaeology and Historic Preservation).....	23
Figure 15: Impacts of Sea Level Rise (source: City of Seattle).....	25
Figure 16: Air Pollution Environmental Exposure Ranking (source: Washington State Department of Health).....	28
Figure 17: Noise Pollution (National Transportation Noise Map, 2020).....	29
Figure 18: Existing SR 99 cross section .....	30
Figure 19: Right-of-way Ownership .....	31
Figure 20: Existing Transit highlighting routes serving South Park .....	35
Figure 21: Collisions Involving Injuries (source: WSDOT) .....	37
Figure 22: Distance between Crossings .....	40
Figure 23: Existing Bike Facilities.....	41

## Introduction

South Park is a vibrant community, rich with a history of connectedness to the land, and reverence to the Duwamish River. Prior to European settlement, the Duwamish People lived along the Duwamish River and the river served as an important food and transportation network. As new settlements expanded along the Duwamish River, the landscape was transformed, and land traditionally stewarded by the Duwamish People was cleared for agriculture. South Park became a center for farming, while the neighboring Georgetown area developed into an industrial hub. The construction of State Route 99 (SR 99) fundamentally altered the South Park neighborhood, creating or exacerbating environmental effects on the surrounding community from degraded air, noise, and water quality, and dividing the two sides of the community.<sup>1</sup>

Reconnect South Park is a community-driven initiative to address the negative impacts caused by SR 99 through the South Park neighborhood and support the people of the Duwamish Valley to flourish and thrive. The Duwamish Valley includes part of Seattle (Georgetown and South Park), Tukwila, and other communities along the Duwamish River and waterway.

### ***Purpose of this Memo***

This memorandum was developed by the Reconnect South Park technical consultant team in collaboration with the City of Seattle Office of Planning and Community Development. It defines the Potential Futures that will be evaluated and compared to support the creation of a Community Vision Plan that will detail the future of SR 99 and the connections to the South Park community. The Potential Futures (described in more detail below) were identified by the Reconnect South Park initiative and include four possible futures for SR 99. These include: "Reroute and Reclaim", "Bridges and Trails", "Boulevard", and "Tunnel." This memorandum also serves to document existing conditions and identify potential risks and considerations that will be investigated and addressed as the Reconnect South Park initiative proceeds. The analysis examined 14 considerations and risks for each Potential Future to determine if any of them present a critical issue which would make that Potential Future not feasible or impractical. These critical issues, known as "fatal flaws", determine whether a Potential Future will go forward for further analysis and consideration.

The evaluation of risks and potential fatal flaws is not an evaluation of the merits or effects of each Potential Future. This document is not a design plan and does not represent a final decision on which Potential Future will be pursued for the South Park community. The next phase of technical analysis will develop design concepts and evaluation in greater detail into a Potential Futures Analysis that will inform the Community Vision Plan.

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<sup>1</sup> See additional information on the history and present of South Park here: <https://arcg.is/1rSSmf>

### **Summary of Findings**

The screening process revealed clear differences in feasibility across the four Potential Futures. Table 1 summarizes the number and severity of risks identified for each Potential Future.

*Table 1: Summary of risk screening*

<b>Potential Future</b>	<b>Limited-Risk Areas</b>	<b>Moderate-Risk Areas</b>	<b>High-Risk Areas</b>	<b>Fatal Flaws</b>
"Reroute and Reclaim"	9	5	0	0
"Bridges and Trails"	5	8	1	0
"Boulevard"	8	6	0	0
"Tunnel"	5	2	3	4

The project team recommends excluding the "Tunnel" Potential Future from future analysis as it presented too many fatal flaws making it infeasible. The "Boulevard", "Bridges and Trails", and "Reroute and Reclaim" Potential Futures are recommended to advance to the next phase for continued evaluation and refinement.

This evaluation was not exhaustive of all considerations, and the next stage of the project will evaluate in greater detail the remaining Potential Futures on additional measures encompassing community goals around health and wellbeing, mobility and connectivity, affordability and economic opportunity, environmental conditions, and cost.

## Definition of Potential Futures

### ***Analysis Area***

Figure 1 illustrates the analysis areas for the Reconnect South Park initiative. At the center is Residential South Park—the core of the neighborhood. Zone 1 includes SR 99 within the South Park neighborhood from S Holden St to the 14<sup>th</sup> Ave S / Des Moines Memorial Dr overcrossing and “cloverleaf” interchange immediately south of the South Park neighborhood in unincorporated King County. Zone 1 is the primary area where roadway and infrastructure changes are explored within each Potential Future. Zone 2 includes SR 99 immediately south of the “cloverleaf” interchange extending down to Tukwila International Blvd. Because SR 99 continues directly into Zone 2, proposed changes in Zone 1 must be closely coordinated with Zone 2 considerations to ensure alignment in mobility, access, and design continuity across the corridor. Zone 3 includes major roads outside of the South Park neighborhood, such as SR 99, SR 509, SR 599, Interstate 5 (I-5), East Marginal Way, and Tukwila International Blvd. Zone 2 and Zone 3 are the primary analysis areas for potential travel pattern changes that could result from each Potential Future. Some areas outside of the roadways highlighted as part of Zone 3 may also be included in the assessment of travel pattern changes.

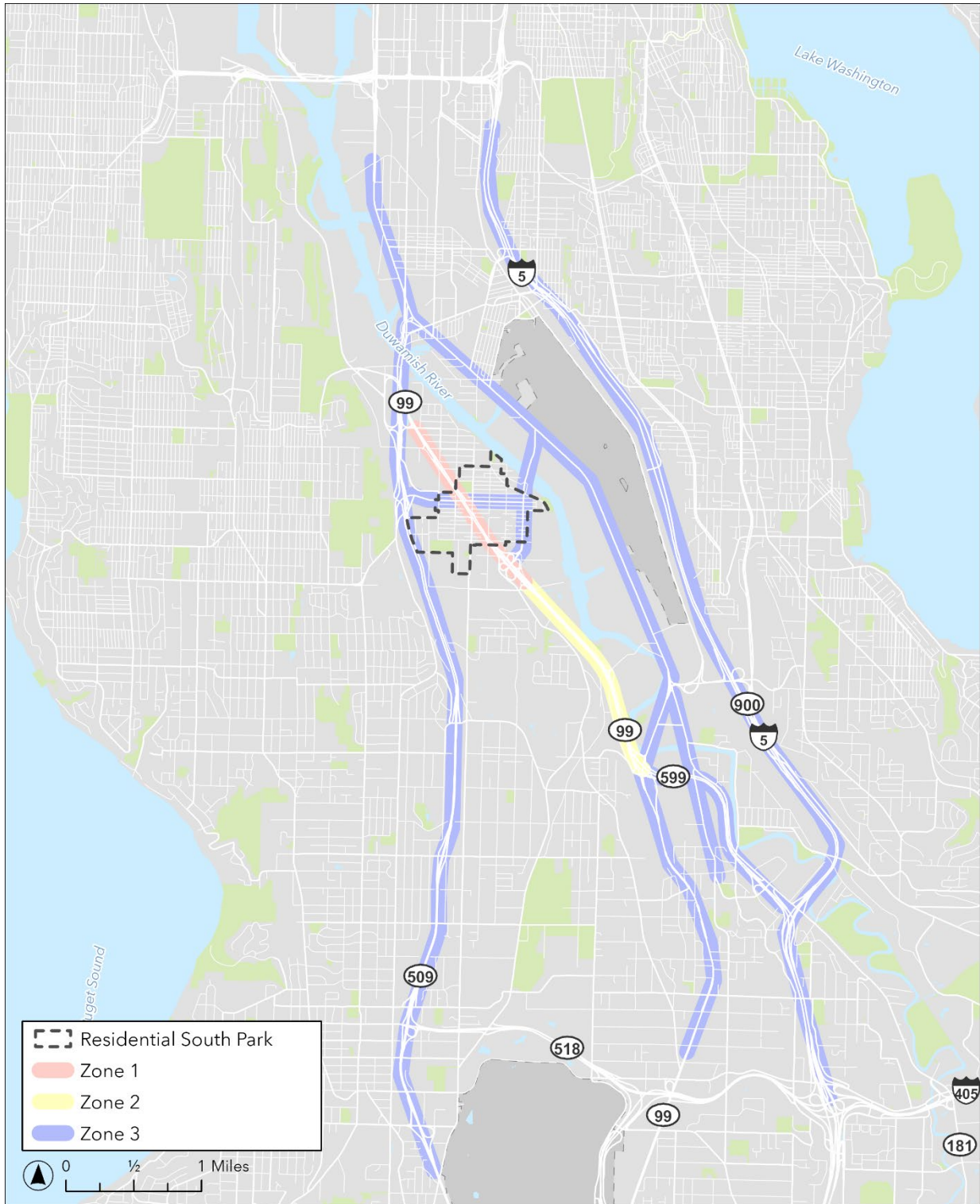


Figure 1: Reconnect South Park study area.

## Potential Futures

The Potential Futures are high level possibilities for the future of SR 99 in South Park. The Potential Futures have been defined based on a community-defined vision and goals for the South Park neighborhood. These Potential Futures are as follows:

- "Reroute and Reclaim"
- "Bridges and Trails"
- "Boulevard"
- "Tunnel"

The following section defines each of these Potential Futures and highlights key changes each one would bring to the South Park neighborhood. Each of the Potential Futures defined in this memo have many considerations that would need to be refined and developed further. The definitions here are preliminary and intended to provide a common basis for analysis and comparison across Potential Futures and not to be definitive about the design of individual components.

### "Reroute and Reclaim"

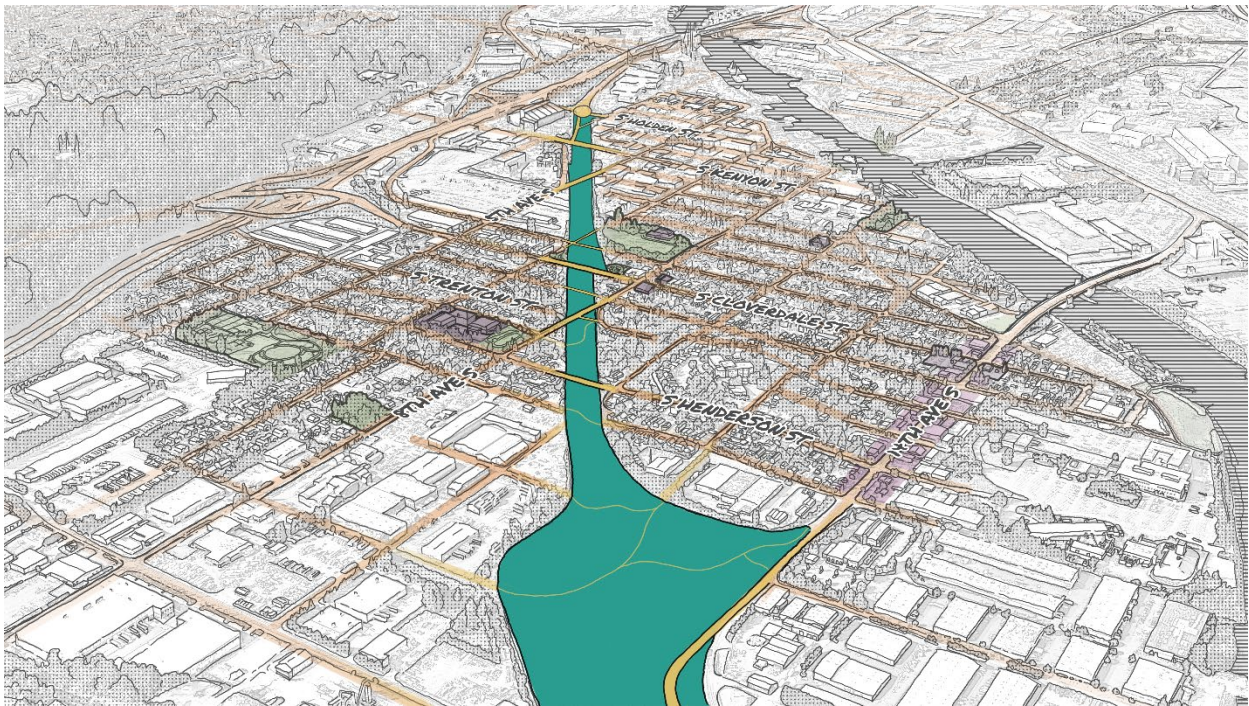


Figure 2: Rendering of a potential Reroute and Reclaim option looking northwest.

The guiding strategy for the "Reroute and Reclaim" Potential Future is to physically and socially reconnect the neighborhood and reclaim land for new community uses by removing SR 99 through South Park and rerouting traffic.



The “Reroute and Reclaim” Potential Future would eliminate SR 99 as a through road in South Park. Key potential changes in this Potential Future include:

- Reclaim SR 99 in South Park and convert land to other uses such as housing, parks, community uses, and reconnected local streets
- Convert SR 99 between Tukwila International Boulevard and 14<sup>th</sup> Ave S into a local-serving street that would not connect through and could result in additional land for other uses
- Reconnect the prior street grid, with some neighborhood streets for all modes, others only for people walking and riding bikes
- Reroute through vehicles on SR 99 from S Kenyon St to Tukwila International Boulevard to other routes, such as SR 509 and I-5

This Potential Future would remove SR 99 as a divisive through-road to create a community-centered corridor, opening up opportunities for safer connections and new public spaces. “Reroute and Reclaim” envisions a local street network centered on people moving around within South Park, rather than prioritizing through traffic.

### **“Bridges and Trails”**



Figure 3: Rendering of a potential view of the “Bridges and Trails” option looking northwest.

The guiding strategy for the “Bridges and Trails” Potential Future is to mitigate as many harmful aspects of SR 99 as possible while maintaining through access on SR 99 through South Park and introducing new connections across and along the corridor.

The “Bridges and Trails” Potential Future would leave SR 99 largely intact through South Park. There would be opportunities to improve the quality of east/west crossings across SR 99 with

bridges and trails and buffer residential and community uses from the SR 99 through sound walls and plantings. Key potential changes in this Potential Future include:

- Narrow the SR 99 center median and add wide landscape buffers on both sides
- Shrink SR 99 cross section to create connected walking/biking trail
- Add a trail to connect the Green River Trail with the Duwamish River Trail
- Widen the S Henderson St bridge and S Cloverdale St undercrossing
- Create a new 8th Ave and S Donovan St overcrossing
- Reconstruct the 14<sup>th</sup> Ave S / Des Moines Memorial Dr interchange and reclaim 13 acres of land from the “cloverleaf”

By layering in new crossings, trails, and green spaces, this Potential Future keeps SR 99 in place while prioritizing safer, more inviting connections for the South Park community.

### **“Boulevard”**



Figure 4: Rendering of a potential Boulevard option looking northwest.

The guiding strategy for the “Boulevard” Potential Future is to accommodate existing access while reclaiming land for community uses by transforming SR 99 into a surface street through South Park with excess right-of-way repurposed for community uses.

A “Boulevard” Potential Future would modify SR 99 to function as an urban, multimodal street. New intersections and crossings could be created in multiple locations in order to better connect the two sides of SR 99.

An urban boulevard could carry freight and vehicle traffic and could support King County Metro bus service and infrastructure for people walking and riding bikes. Residual land from

SR 99, including from a reconfigured 14<sup>th</sup> Ave S / Des Moines Memorial Dr interchange could be repurposed for other uses. Key changes in this Potential Future include:

- Add sidewalks and a bike trail along SR 99
- Convert the freeway to a city street cross-section through South Park with walking, biking and transit access along and across the road
- Convert SR 99 from Tukwila International Boulevard to 14<sup>th</sup> Ave S into city street cross-section similar to the cross-section in South Park
- Add regular signalized crossings across SR 99 approximately every 400 to 600 feet
- Reclaim land for community uses

There are many possible approaches to implement this Potential Future, but the Potential Futures Analysis will look at two approaches: a “Wider Boulevard” that would have two lanes in each direction and or “Narrower Boulevard” that would have one lane in each direction. These two approaches would both have pedestrian and bicycle facilities connecting along the new street and could include new transit service and could have different approaches to freight traffic. Within this memo, the “Boulevard” Potential Future is examined as one Potential Future because both approaches would have the same considerations and risks discussed in the Screening of Considerations and Risks by Category.

### **“Tunnel”**



Figure 5: Rendering of a potential Tunnel option looking northwest.

The “Tunnel” Potential Future envisions lowering SR 99 below the grade level of surrounding streets. This could be done as a series of lids, an open trench, or as a tunnel. At-grade

crossings with SR 99 would not be reintroduced but a series of new roadway connections and/or connections for people walking and riding bikes could be re-established.

Key potential changes in this Potential Future include:

- Reconfigure the 14<sup>th</sup> Ave S / Des Moines Memorial Dr bridge and interchange to be an at grade intersection that would be the start of the tunnel grade
- Construct a tunnel from north of 14<sup>th</sup> Ave S / Des Moines Memorial Dr to north of 7<sup>th</sup> Ave S.
- Add new east/west roadway connections
- Add new connections and improved mobility for people walking and biking
- Reclaim land for community use

A below-grade SR 99 would restore neighborhood connections lost to the state route, with new routes for walking, biking, and driving. This Potential Future would create a more unified South Park with reclaimed land and fewer barriers.

## Planning Context

South Park is a close-knit, culturally rich neighborhood with a strong sense of identity and deep community roots. This section provides an overview of the neighborhood's existing conditions – how land is used, how the streets and public spaces are shaped, where key community infrastructure is located, and how people move through the neighborhood, including access to transit. It also considers issues of equity and access to opportunities that are critical to understanding how future changes may affect the people who live and work in South Park. While the risk screening framework in this document highlights environmental and infrastructure challenges, it does not fully reflect all the key considerations from South Park residents' lived experience. Subsequent evaluation steps in the analysis of Potential Futures will add depth and context reflecting additional key considerations in supporting the Community Vision Plan.

This section is organized into the following categories:

- Land Use and Urban Form
- Community Infrastructure
- Vehicular Travel Patterns
- Equity and Access to Opportunity

Figure 6 shows a rendering of the current street network as a reference point for this discussion.

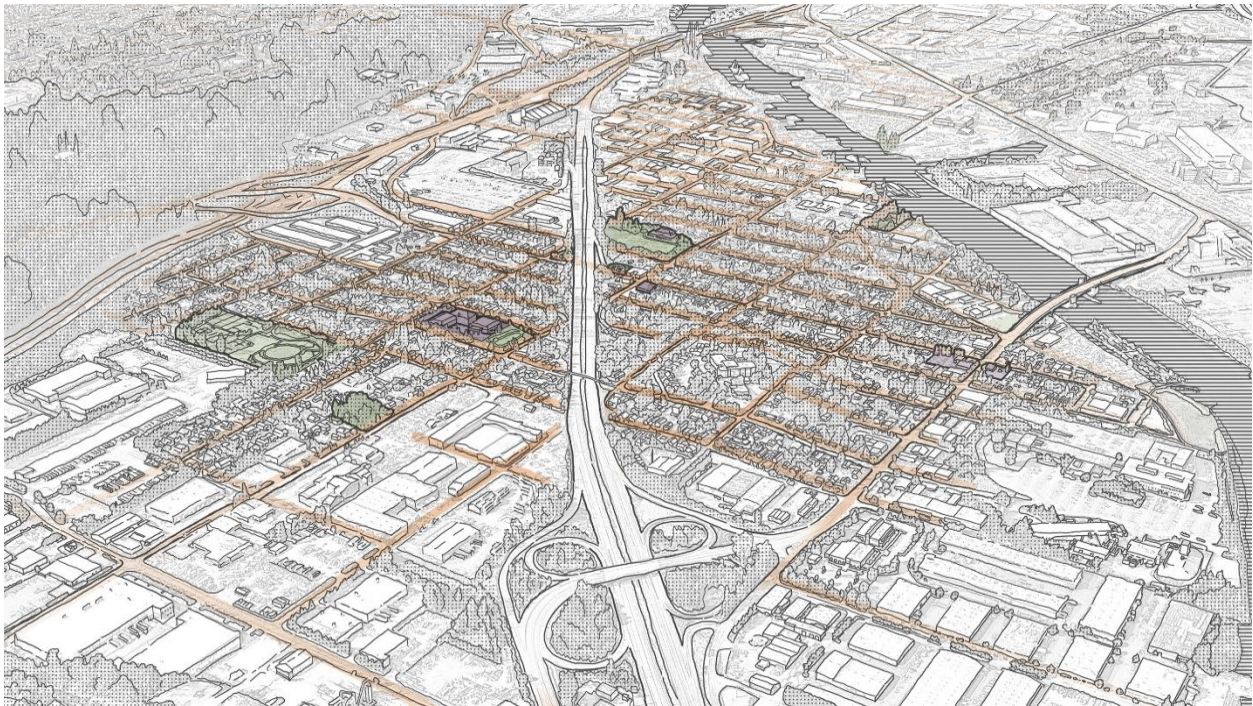


Figure 6: Rendering of the existing South Park street network looking to the northwest.

### Land Use and Urban Form

The South Park neighborhood includes a mix of residential, commercial, and industrial uses. The residential neighborhood of South Park is bordered to the north and south by industrial uses, including manufacturing and warehousing activities. Commercial retail uses are concentrated along 14<sup>th</sup> Ave S and there are a mix of civic uses throughout the neighborhood. The surrounding industrial area comprises a part of the Greater Duwamish Manufacturing Industrial Center. Future land use is expected to remain consistent as shown in Figure 7.

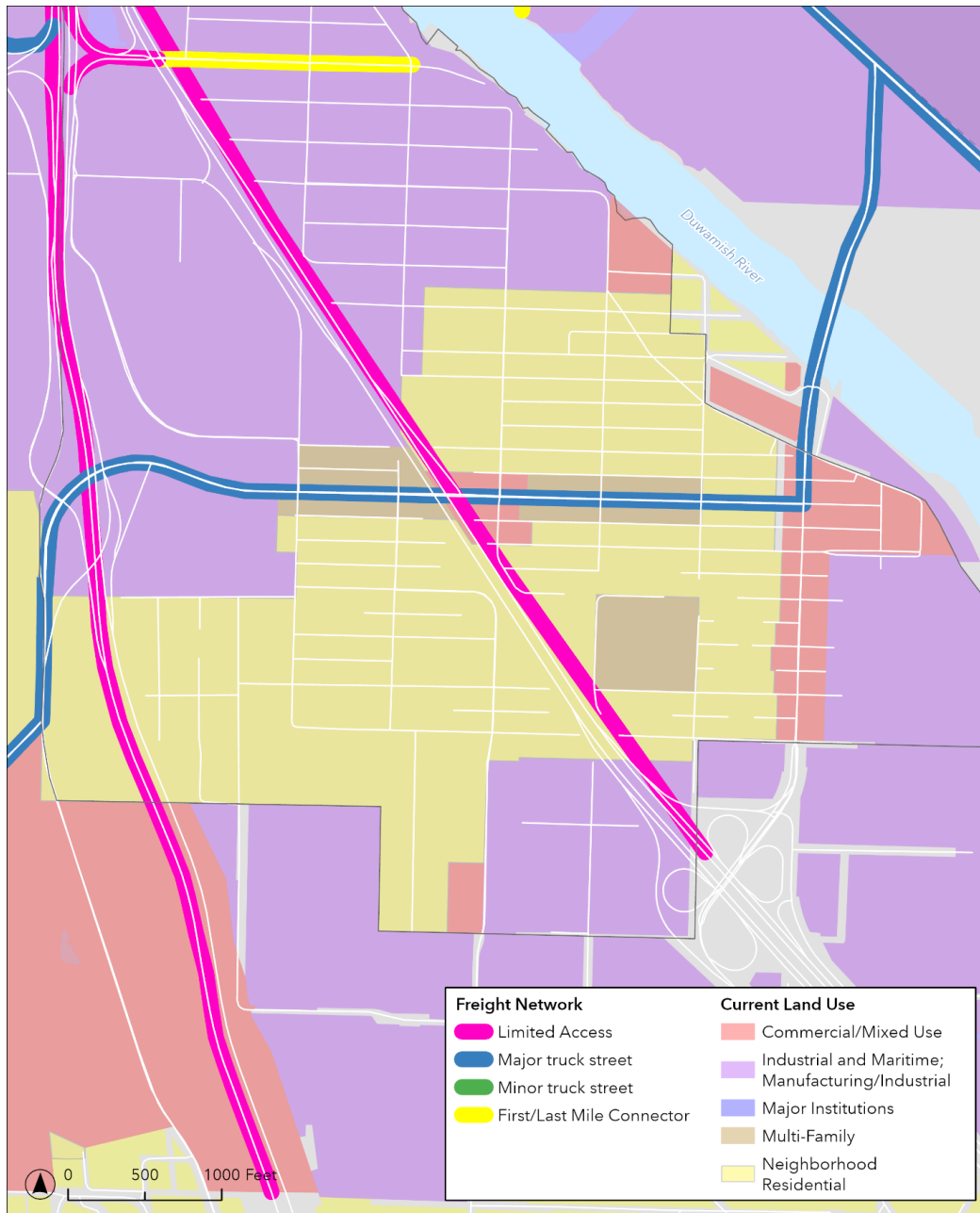


Figure 7: Existing Land Use and Freight Network

### Community Infrastructure

The South Park neighborhood has important community spaces on both sides of SR 99 with SR 99 currently dividing the neighborhood making travel from one side to the other difficult. The South Park Library, South Park Playground and Community Center and River City Skate Park are located east of SR 99, while Marra-Desimone Park and Concord Elementary are located west of SR 99. Other key community spaces are shown in Figure 8.

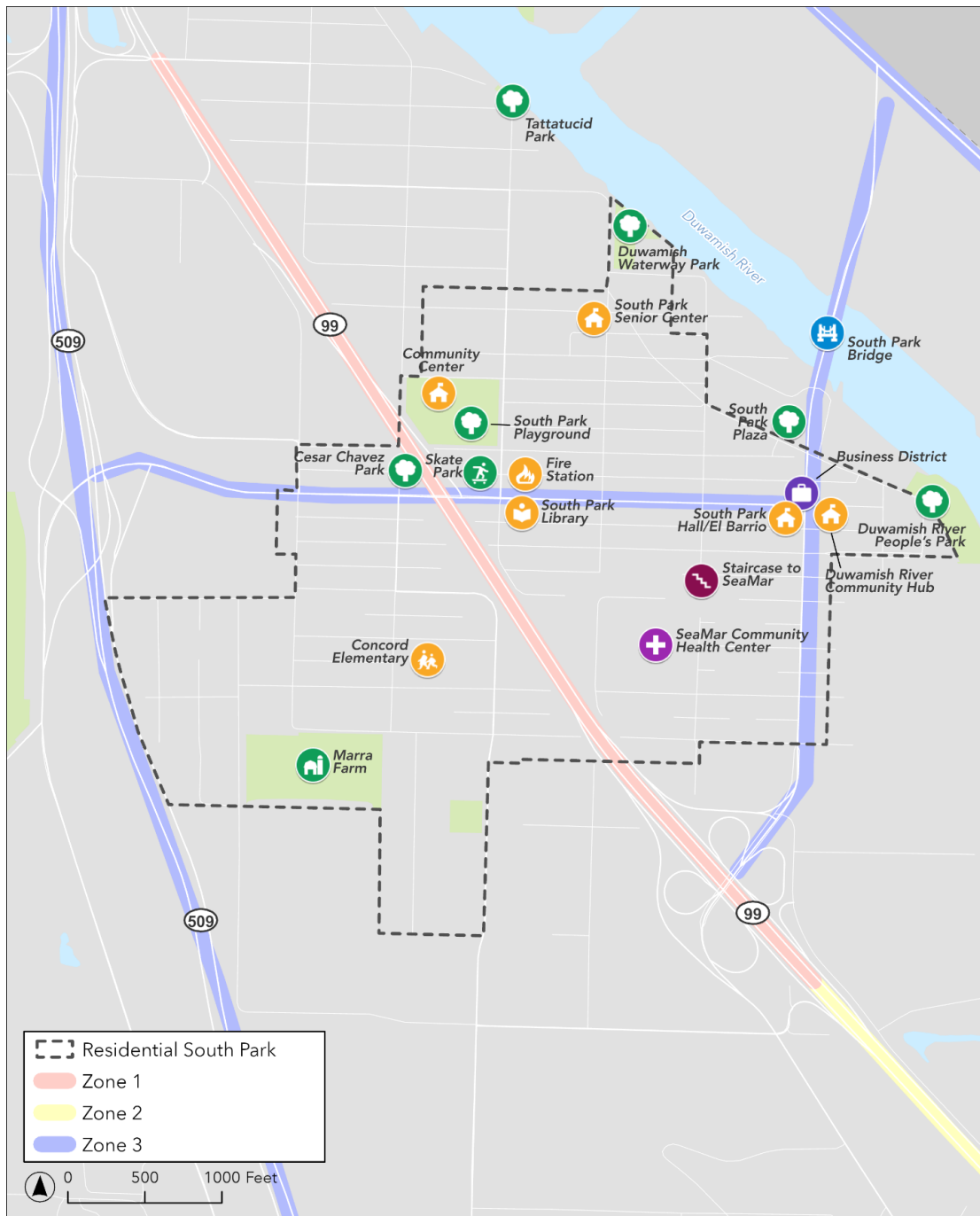


Figure 8: Community Assets

### Vehicular Travel Patterns

SR 99 has less vehicular traffic than other state and interstate routes nearby with 60 percent less vehicular traffic volume than SR 509 and 75 percent less than I-5 (Figure 9). Vehicular traffic volumes on SR 99 are closer to arterials in Seattle such as 4<sup>th</sup> Ave S, Denny Way, 15<sup>th</sup> Ave NW and Lake City Way NE. The majority of SR 99's vehicular volume in South Park is drivers passing through South Park. SR 99 within South Park primarily serves people traversing South Park, rather than people living in South Park. During the AM peak period, less than 10 percent of northbound trips on SR 99 start or end in South Park and only about six percent of northbound trips that originate in South Park use SR 99. Figure 10 shows the top origins and destinations by each major corridor near South Park.

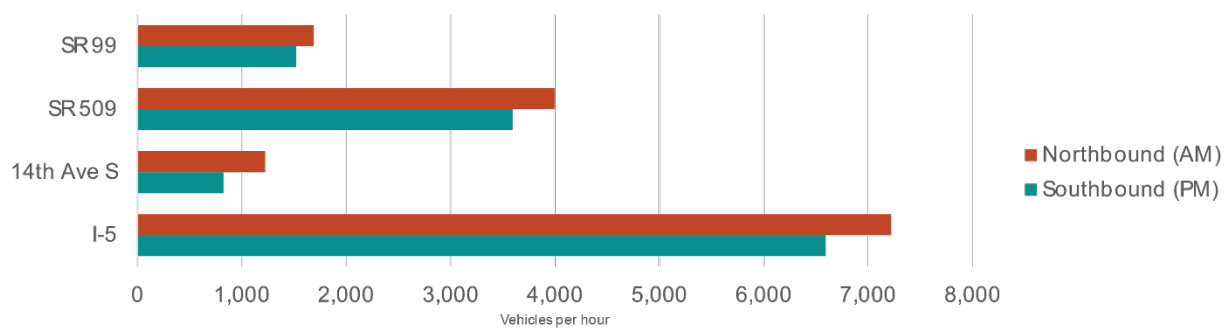


Figure 9: Peak Hour / Peak Direction Vehicle Volumes (Source: City of Seattle, 2024)

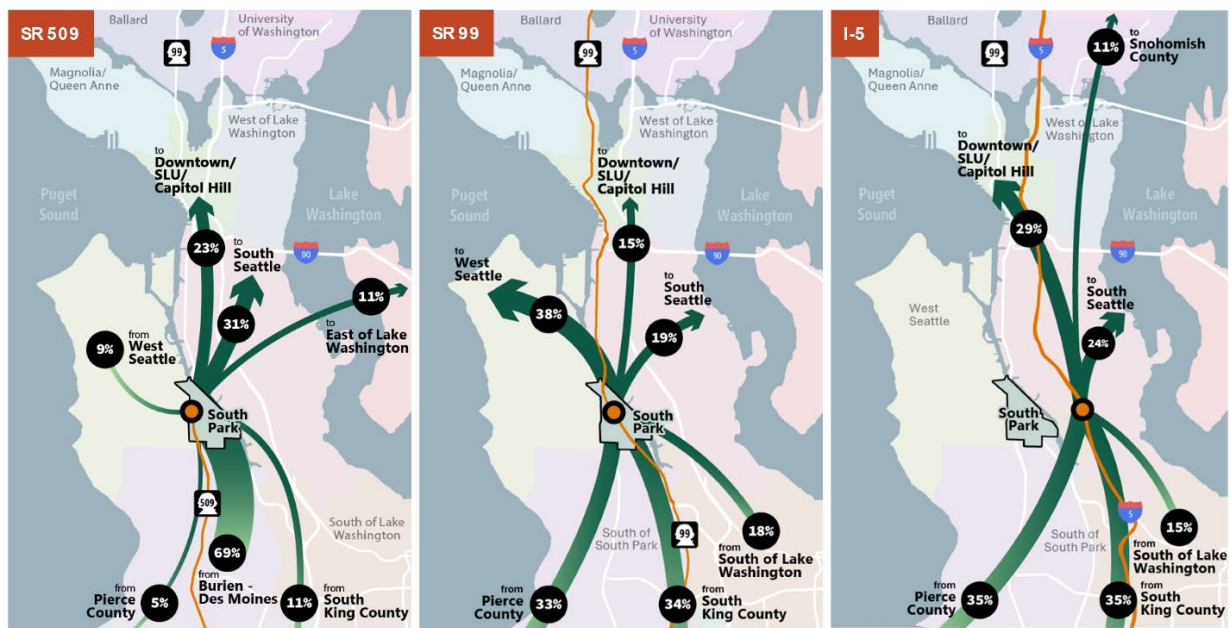


Figure 10: Top Origins and Destinations by Each Corridor (Northbound AM) (Source: Streetlight)

SR 99 and its surrounding streets within South Park carry significant freight traffic volumes. Figure 11 shows northbound traffic volumes for personal vehicles and freight vehicles.



Freight’s total share of vehicular volume is as high as 20 percent at some locations within the study area. Generally, truck volumes closer to about 2 percent of total vehicle volumes are more typical in an urban context.

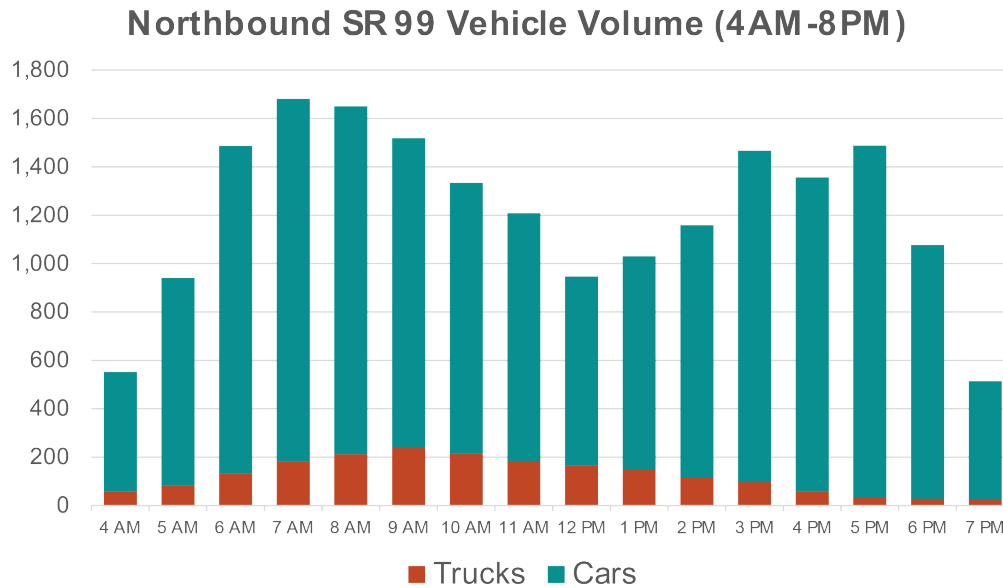


Figure 11: Northbound SR 99 Vehicle Volume (4AM-8PM)

### Equity and Access to Opportunity

South Park residents face a high risk of displacement, as identified by the City of Seattle’s updated displacement risk index<sup>2</sup> and according to other nationally-recognized displacement indices. Risk of displacement is also comparatively higher than the surrounding neighborhoods of Highland Park to the west and Georgetown to the east. South Park’s displacement risk is attributed to a variety of interconnected factors, including demographic vulnerability (e.g. prevalence of low-income renters, unemployment levels), environmental gentrification from recent efforts to remediate environmental issues (e.g. pollution from the nearby Duwamish River) that have led to increased interest in the area, and increased public funding to support infrastructure developments and housing production.

South Park also ranks low for access to opportunity based on school performance, jobs, and access to transit, libraries, fresh produce, community centers, parks, etc.<sup>3</sup> High risk of displacement coupled with current low access to opportunity emphasize both the opportunities the Potential Futures can bring to South Park, but also the need for strong policies to protect from displacement *before* investments are made to mitigate the current high risk of displacement for South Park residents.

<sup>2</sup> <https://www.arcgis.com/home/item.html?id=c5ee73d8de6f443687383930d8171600>

<sup>3</sup>

<https://www.seattle.gov/documents/departments/opcd/ongoinginitiatives/seattlescomprehensiveplan/finalgrowthandequityanalysis.pdf>

## Screening of Considerations and Risks by Category

Transformation of the SR 99 corridor presents a variety of challenges and many potential benefits. The initial screening process for the Potential Futures involves exploring potential risks, considerations, and fatal flaws. Risks become fatal flaws if they are identified to be critical or high risk issues that impact the feasibility of a Potential Future. Some of the considerations and risks apply to all Potential Futures equally, while others apply more narrowly. These have been categorized as:

- Infrastructure: Risks and considerations associated with transportation and non-transportation infrastructure
- Environmental: Risks and considerations associated with existing natural and human environment
- Regulatory: Risks and considerations associated with legal and regulatory conditions
- Operations: Risks and considerations associated with transportation systems the potential outcomes of transformational investments

Risks and considerations are described below and are summarized to the extent information is available today. Each risk or consideration includes existing conditions and a brief analysis and discussion on the severity of the risk within each Potential Future. An accompanying table is included with each risk and consideration which summarizes how each Potential Future was evaluated. The table is color-coded as:

Green: Limited risk	Blue: Moderate risk	Orange: High Risk	Dark Orange: Fatal Flaw
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Many of these risks and considerations will need to be explored further beyond this memo as the study proceeds.

### Infrastructure

The infrastructure category includes risks and considerations associated with transportation and non-transportation infrastructure. This section analyzes the seismic stability of existing structures along SR 99 in the South Park neighborhood. It also identifies which subsurface utilities are within the project area, what key considerations must be made, and whether they pose a fatal flaw and will impact a Potential Future’s feasibility.

#### **Seismic Stability of Existing Structures**

##### *Existing Conditions*

Previous evaluations of seismic stability of existing transportation structures have identified potential deficiencies in each of the structures along SR 99, including the Des Moines

Memorial Drive bridge over SR 99, the S Henderson Street Pedestrian Bridge, and the SR 99 Bridge over S Cloverdale Street.<sup>4</sup>

These structures have varying levels of risk of failure in a seismic event and will need to be retrofitted or replaced at some point in the future.

*Considerations and Risks*

Because other Potential Futures consider removal of these existing structures, these risks and considerations apply only to the “Bridges and Trails” Potential Future.

<b>“Reroute and Reclaim”</b>	<b>“Bridges and Trails”</b>	<b>“Boulevard”</b>	<b>“Tunnel”</b>
Limited risk, no anticipated structures	Moderate risk, existing structures may require future retrofit	Limited risk, no anticipated structures	Limited risk, existing structures would be removed (see Soil, Geotechnical Conditions & Floodplain for new construction considerations)

**Subsurface Utilities**

*Existing Conditions*

Subsurface utilities in this section include stormwater and wastewater pipes underground. Figure 12 illustrates existing subsurface utilities with a diameter over 10 inches. This indicates potentially more substantial challenges to relocate, if needed, for a Potential Future. There is a 96-inch King County sewer main running generally parallel to the SR 99 roadway. Other sewer infrastructure and some SPU water mains are among the utilities that may also require relocation.

**King County Sewer Line**

The 96-inch Regional Effluent Transmission System (RETS) is a critical asset for transporting treated sewage to Puget Sound, making its continued operation and structural integrity a top priority. Any proposed construction must account for substantial constraints related to the RETS's function, emergency contingency plans, geotechnical conditions, and spatial limitations. A 15-foot horizontal offset for any construction is required from the centerline, and depths of the pipeline vary, with some sections buried as shallow as five feet below the surface. Any nearby excavation would need to demonstrate that it does not compromise the pipeline’s structural integrity, requiring extensive geotechnical and structural calculations.

**SPU Drainage and Wastewater Mainlines**

The 72-inch Drainage and Wastewater (DWW) mainlines crossing owned by Seattle Public Utilities (SPU) at S Southern St provides a critical function serving as the primary gravity

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<sup>4</sup> Exeltech Consulting memo dated August 30, 2023.

drainage system for a 240-acre basin, conveying flows to the Duwamish River near S Holden St. Its essential role in regional drainage means that it cannot be removed and offers only limited flexibility in realignment.

*Considerations and Risks*

Because of the significant constraints related to the RETS's function, emergency contingency plans, geotechnical conditions, and spatial limitations, the "Tunnel" Potential Future presents unacceptable risks and engineering challenges that make it a fatal flaw.

One of the primary concerns is the unknown feasibility of emergency discharge in the event that RETS operation is disrupted. While emergency systems exist to divert flows to the river, the duration and overall feasibility of relying on this contingency remain unclear. If the RETS needed to be shut down for tunnel construction, it is uncertain how long flows could be diverted without causing operational or environmental consequences. Without a defined and reliable emergency discharge plan, any project that risks disrupting the RETS is problematic.

King County has confirmed realignment of the RETS is not an option. This restriction significantly limits potential tunnel alignments, as any construction would have to navigate around an active, large-diameter utility line without compromising its function. The RETS also traverses varying geological conditions, and its pile-supported sections, built between 1984 and 1987, add another layer of complexity. Ensuring stability near these structures would require extensive engineering analysis and risk mitigation efforts, increasing cost and uncertainty.

The 96-inch RETS facility in particular has a zone of influence that limits potential reconstruction directly on top and would present substantial challenges for the "Tunnel" Potential Future, both in terms of construction risk and restrictions on alignment. The RETS facility would limit surface uses in the "Reroute and Reclaim" Potential Future and limit surface uses and roadway realignment in the "Boulevard" Potential Future.

The SPU DWW facility also limits potential choices for the future of SR 99 but is only anticipated to pose a substantial risk to a "Tunnel" Potential Future. The 72-inch pipe backs up to SR 99 during flood events, with no available relief between different sections of the system. Recent flood events have resulted in 1-2 feet of standing water, exacerbating drainage challenges in an already low-lying floodplain. A recently constructed pump station north of South Park was specifically designed to mitigate backflow issues related to this storm system, emphasizing the need to maintain its existing function. New buildings over the 72-inch DWW mainlines are not permitted because maintaining access to critical points is necessary in any future condition.

<b>"Reroute and Reclaim"</b>	<b>"Bridges and Trails"</b>	<b>"Boulevard"</b>	<b>"Tunnel"</b>
Limited risk, some restrictions to land reuse	Limited risk, no change from current conditions	Moderate risk with restrictions to roadway alignment and land reuse	Fatal flaw due to existing infrastructure

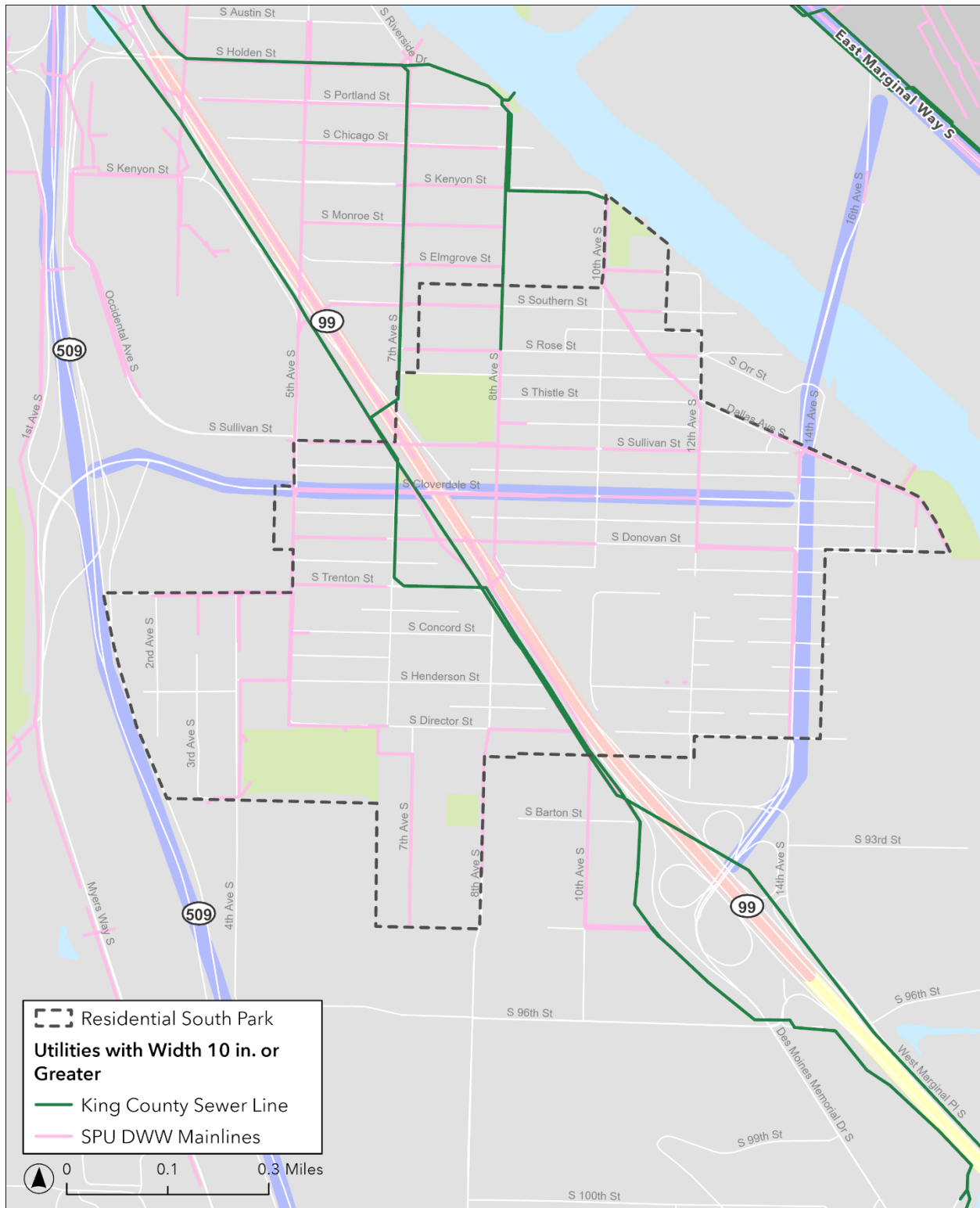


Figure 12: Existing Utilities

## Environmental

The environmental category evaluates risks and considerations associated with existing natural and human environment. This section explores risks related to climate change, natural events, and environmental issues caused by development and industrialization and how they are addressed in each Potential Future.

### Soil, Geotechnical Conditions & Floodplain

#### Existing Conditions

South Park is within an area identified as part of the City of Seattle’s Liquefaction-Prone Areas (LPAs). These areas include soils that are at elevated risk of liquefaction during a seismic event, posing additional risk to infrastructure.

#### Considerations and Risks

Bridges and tunnels in LPAs need to be constructed with deep foundations and other strategies to mitigate risk, potentially increasing the cost of these structures substantially.

These conditions present risks primarily for the “Bridges and Trails” and “Tunnel” Potential Futures. For tunnels, in particular, one strategy is to build deeper tunnels or to reinforce the tunnel walls more substantially. Both of these strategies carry higher risks in South Park, as a deeper tunnel would require a longer length and more disruption to the community and thicker walls would increase the risks to adjacent infrastructure like the RETS facility.

“Reroute and Reclaim”	“Bridges and Trails”	“Boulevard”	“Tunnel”
Limited risk, no anticipated structures	Moderate risk for existing and new structures	Limited risk, no anticipated structures	Fatal flaw due to geologic conditions

### Hazardous Materials and Contaminated Soils

#### Existing Conditions

Due to South Park’s long history of heavy and intense industrial use, the soil, air, and groundwater of the area are heavily impacted with pollutants from legacy and current operations. Stormwater runoff, wastewater, and industrial practices have resulted in contamination of the Lower Duwamish Waterway, which the EPA declared a “Superfund” site in 2001 due to the severity of its contamination. As shown in the map below, there are dozens of identified contaminated sites throughout the South Park community (Figure 13).

In addition, decades of motor vehicle usage on SR 99 prior to lead being phased out of gasoline in the 1970s coupled with lead from aviation fuel combustion in piston engines, has likely resulted in much of the soil beneath unpaved areas of South Park being contaminated with elevated levels of lead today. Any construction or demolition in and around SR 99 risks re-exposure of lead and other chemicals harmful to humans and the ecosystem.

*Considerations and Risks*

All Potential Futures carry a moderate risk because of the scale of ground disturbance. The substantial excavation needed for the "Tunnel" Potential Future would carry the highest risk associated with hazardous materials and contaminated soils and this risk rises to the level of a fatal flaw in this analysis.

<b>"Reroute and Reclaim"</b>	<b>"Bridges and Trails"</b>	<b>"Boulevard"</b>	<b>"Tunnel"</b>
Moderate risk from ground disturbance for any existing contamination	Moderate risk from ground disturbance for any existing contamination	Moderate risk from ground disturbance for any existing contamination	Fatal flaw from scale of potential disturbance

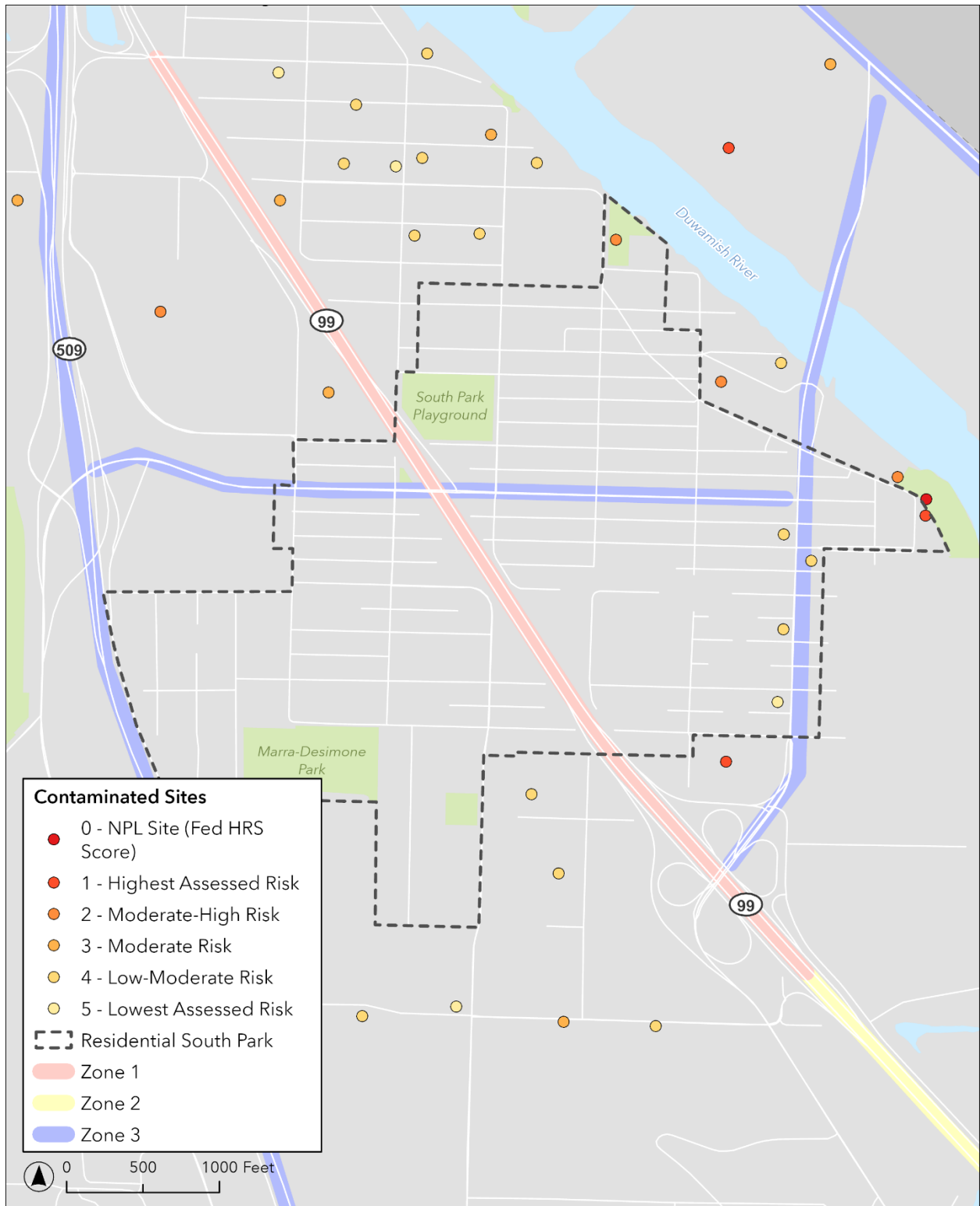


Figure 13: Contaminated Sites (Source: WA Department of Ecology)



**Historic and Cultural Resources**

*Existing Conditions*

There are limited landmarked historic resources in South Park, but there may be additional historic eligible resources (see Figure 14). The areas along the Duwamish River carry cultural importance for many Tribes. More substantial ground disturbance and excavation carry increased risks associated with cultural resources. In addition to historic resource investigations, future changes to SR 99 will also require cultural resource investigation and Tribal consultation. The Washington State Department of Archaeology and Historic Preservation Tribal Areas of Interest Map indicates that South Park and the area of the SR 99 ROW is part of Tribal Areas of Interest for six tribal organizations.<sup>5</sup>

*Considerations and Risks*

All Potential Futures have relatively similar risks associated with historic and cultural resources, however the “Tunnel” Potential Future would have more substantial risk due to the scale of ground disturbance.

<b>“Reroute and Reclaim”</b>	<b>“Bridges and Trails”</b>	<b>“Boulevard”</b>	<b>“Tunnel”</b>
Moderate risk of identification of and potential adverse effect to historic and cultural resources	Moderate risk of identification of and potential adverse effect to historic and cultural resources	Moderate risk of identification of and potential adverse effect to historic and cultural resources	High risk due to scale of ground disturbance and excavation

<sup>5</sup> <https://dahp.wa.gov/archaeology/tribal-consultation-information>



Figure 14: Landmarks and Historic Properties (Source: WA Department of Archaeology and Historic Preservation)

## **Stormwater, Drainage, and Sea Level Rise**

### *Existing Conditions*

South Park is vulnerable to sea level rise caused by climate change. Sea level rise threatens residential and industrial areas along the north end of the neighborhood. Currently public spaces along the Duwamish River are difficult to access due to rising tides. Figure 15 illustrates areas within the project area that are impacted by sea level rise.

The existing highway drainage infrastructure primarily handles roadway runoff and can be removed without impacting South Park's drainage system. However, much of SR 99 and the South Park community lies at 7 meters/23 feet or less above mean sea level, and the shallow gravity trunk lines that cross SR 99 are critical and cannot be easily relocated. As described above, the 72-inch SPU stormwater pipe at S Southern St cannot be easily moved, limiting underground construction options.

Flooding in South Park is driven by tidal influence from the Duwamish River, combined sewer backups in the southern portion of the neighborhood, and pump station capacity constraints. The most significant flood events have resulted from river overtopping rather than inadequate drainage infrastructure. While a new pump station north of South Park has helped reduce backups, flooding remains a concern, particularly near Dallas Ave, where low-lying land is more vulnerable to sea level rise. SPU has been actively working for over six years on flood mitigation projects, and any modifications to SR 99 will need to be coordinated with these efforts to ensure alignment with existing strategies and identify upstream opportunities for stormwater dispersal. Additionally, floodwaters back up against SR 99 with limited relief pathways, so any redesign will need to avoid exacerbating existing flood risks. Predicted sea level rise due to climate change will result in more frequent and more intense flooding from storm surges and may result in higher groundwater levels or seawater intrusion throughout South Park.<sup>6</sup>

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<https://www.seattle.gov/documents/Departments/OSE/Duwamish/South%20Park%20Sea%20Level%20Rise%20Adaptation%20Strategy%20-%20Final%20Summary%20%282%29.pdf>

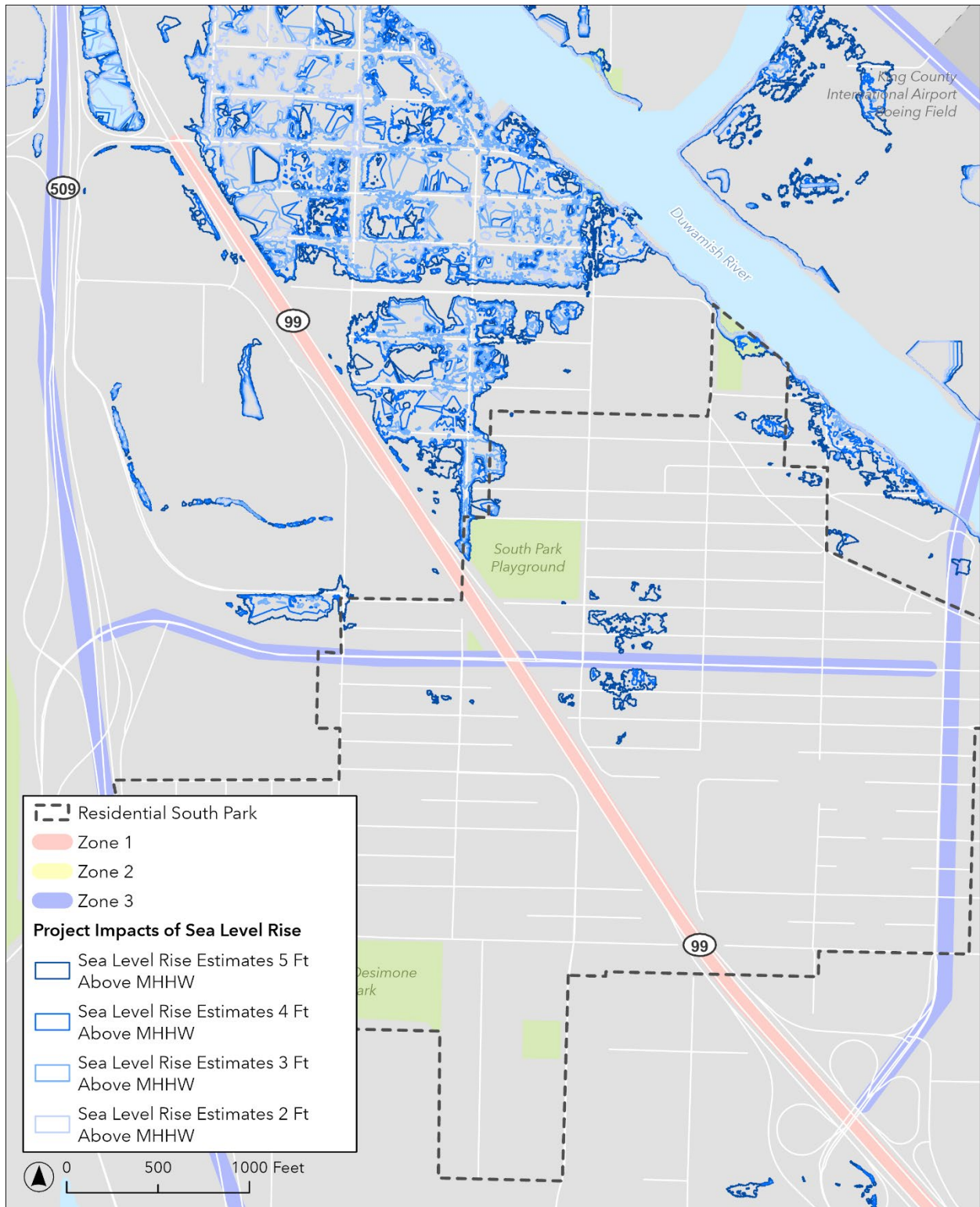


Figure 15: Impacts of Sea Level Rise (source: City of Seattle)

*Considerations and Risks*

Changes to the SR 99 right-of-way will need to carefully assess stormwater impacts to prevent worsening flood conditions. If SR 99 is converted from the current freeway, there may be an opportunity to redirect runoff from intersecting or dead-end local streets, potentially reducing strain on South Park’s stormwater system.

All Potential Futures carry some risk and design considerations around stormwater and climate change considerations, however the “Tunnel” Potential Future is likely cost prohibitive due to the high groundwater table, which would require extensive dewatering efforts, and would carry continuous risk of flooding.

“Reroute and Reclaim”	“Bridges and Trails”	“Boulevard”	“Tunnel”
Limited risk, baseline risk with mitigation potential	Moderate risk of projected Sea Level Rise and current flooding	Limited risk, baseline risk with mitigation potential	Fatal flaw due to high groundwater, existing flooding, and projected sea level rise

**Air Quality, Noise, and Environmental Health**

*Existing Conditions*

As shown in Figure 16 and Figure 17 South Park is burdened by air and noise pollution.

South Park and the Duwamish Valley experience some of the highest concentrations of air pollution in Washington state. Air quality is under the jurisdiction of the Puget Sound Clean Air Agency (PSCAA) and South Park lies within a subarea identified as “highly impacted by air pollution”.<sup>7</sup> PSCAA identified South Park as a focus community which is a subset of air pollution overburdened communities. Residents of South Park are exposed to elevated pollutant levels in part because the community is a hub of transportation and industry, intermingled alongside residential areas. The PSCAA operates a PM2.5 monitoring station in South Park, which measures fine inhalable particles smaller than 2.5 micrometers. Monitoring data show that PM2.5 concentrations frequently exceed 20 micrograms per cubic meter—the Department of Ecology’s recommended health threshold—on 22 days each year.<sup>8</sup> Exposure to elevated PM2.5, which, due to its relatively small size, can be breathed deeply into the lungs and enter the bloodstream, negatively impacts heart health, decreases lung function, and aggravates asthma.<sup>9</sup> According to the latest report by Washington State Department of Ecology on *Improving Air Quality in Overburdened Communities Highly Impacted by Air Pollution*:

<sup>7</sup> [Improving Air Quality in Overburdened Communities Highly Impacted by Air Pollution: 2023 Report](#)

<sup>8</sup> This number excludes Wildfire days which averaged 18 days per year where the PM2.5 concentrations caused by wildfires exceed 20 micrograms per cubic meter.

<sup>9</sup> USEPA, [Health and Environmental Effects of Particulate Matter \(PM\) | US EPA](#)

“Several socioeconomic factors indicate that populations within the South Seattle community [which includes South Park] may be at greater risk of health impacts from air pollution, including people of color, low-income, and linguistically isolated populations. The community on average also experiences higher rates of asthma and lower life expectancy, compared to the rest of Washington State.”<sup>10</sup>

Noise is largely considered the second largest environmental cause of health problems, just after the impact of air pollution. Negative effects of exposure to noise include annoyance, sleep disturbance, heart disease, and learning difficulties in children exposed to chronic elevated noise. Sound levels in South Park are approximately 74 A-weighted decibels (dBA). This is below the 85 dBA level associated with hearing loss from prolonged exposure but above the 55 dBA limit which the U.S. EPA recommends for community noise exposure. Vehicular traffic on SR 99 is a large contributing source of noise in the South Park community, in addition to industrial sources, local roadways, and aircraft operations. Roadway noise increases with the speed and volume of vehicles and decreases with distance between the roadway and the noise-sensitive receiver.

*Considerations and Risks*

Any Potential Future that results in similar or increased traffic volumes in South Park carries risks to community health. The “Reroute and Reclaim” and “Boulevard” Potential Futures, which are anticipated to reduce the effects of regional traffic on the South Park community would carry lower risk (and potential benefits) of reduced air and noise pollution. “Bridges and Trails” would maintain the current level of noise and air pollution. “Tunnel” would be quieter but would have increased concentrations of higher levels of air pollution at the tunnel entrances.

<b>“Reroute and Reclaim”</b>	<b>“Bridges and Trails”</b>	<b>“Boulevard”</b>	<b>“Tunnel”</b>
Limited risk, scale of potential change uncertain	High risk, no change from existing conditions anticipated	Limited risk, scale of potential change uncertain	High risk, no change from existing conditions anticipated

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<sup>10</sup> [Improving Air Quality in Overburdened Communities Highly Impacted by Air Pollution: 2023 Report](#)

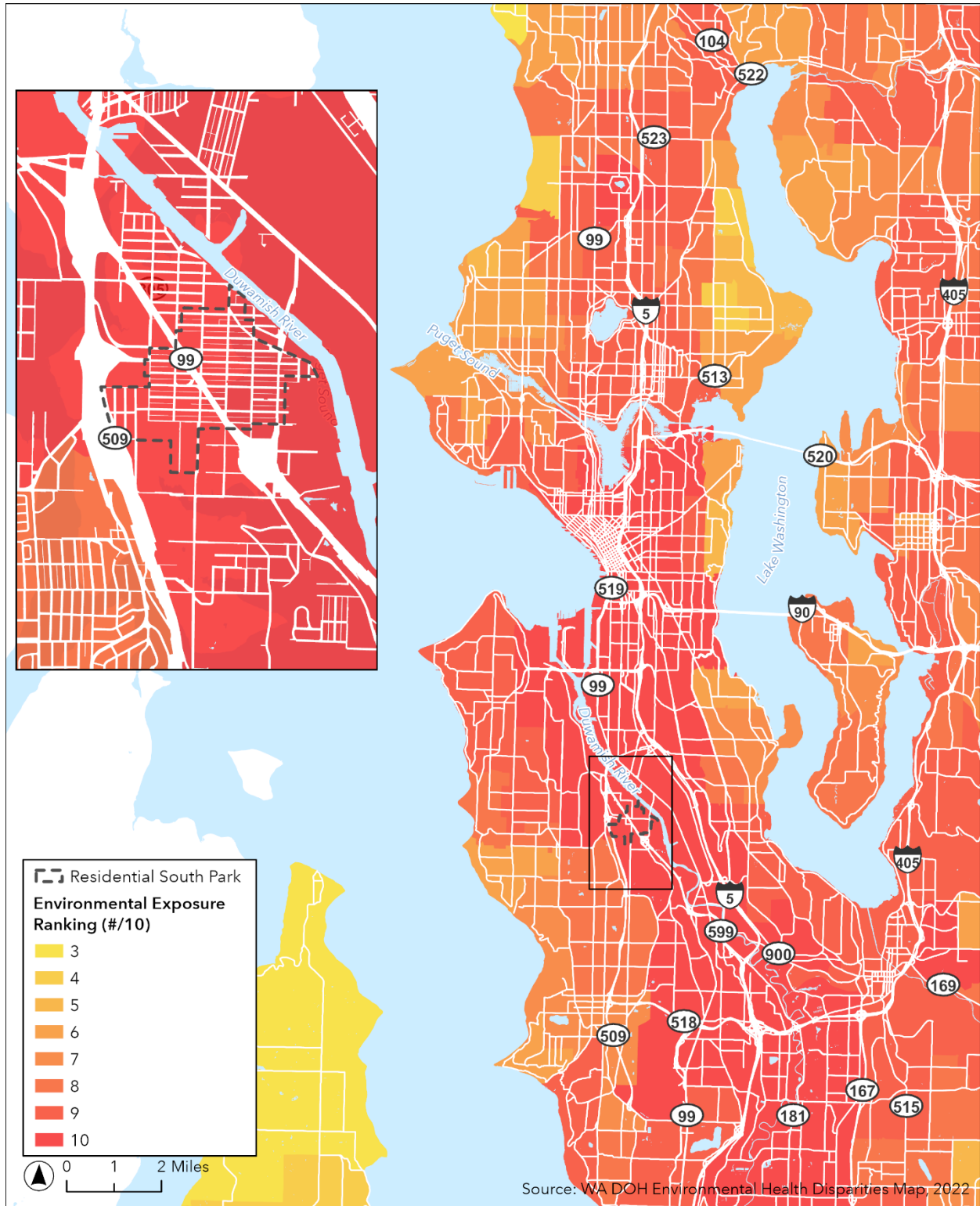


Figure 16: Air Pollution Environmental Exposure Ranking (source: Washington State Department of Health)

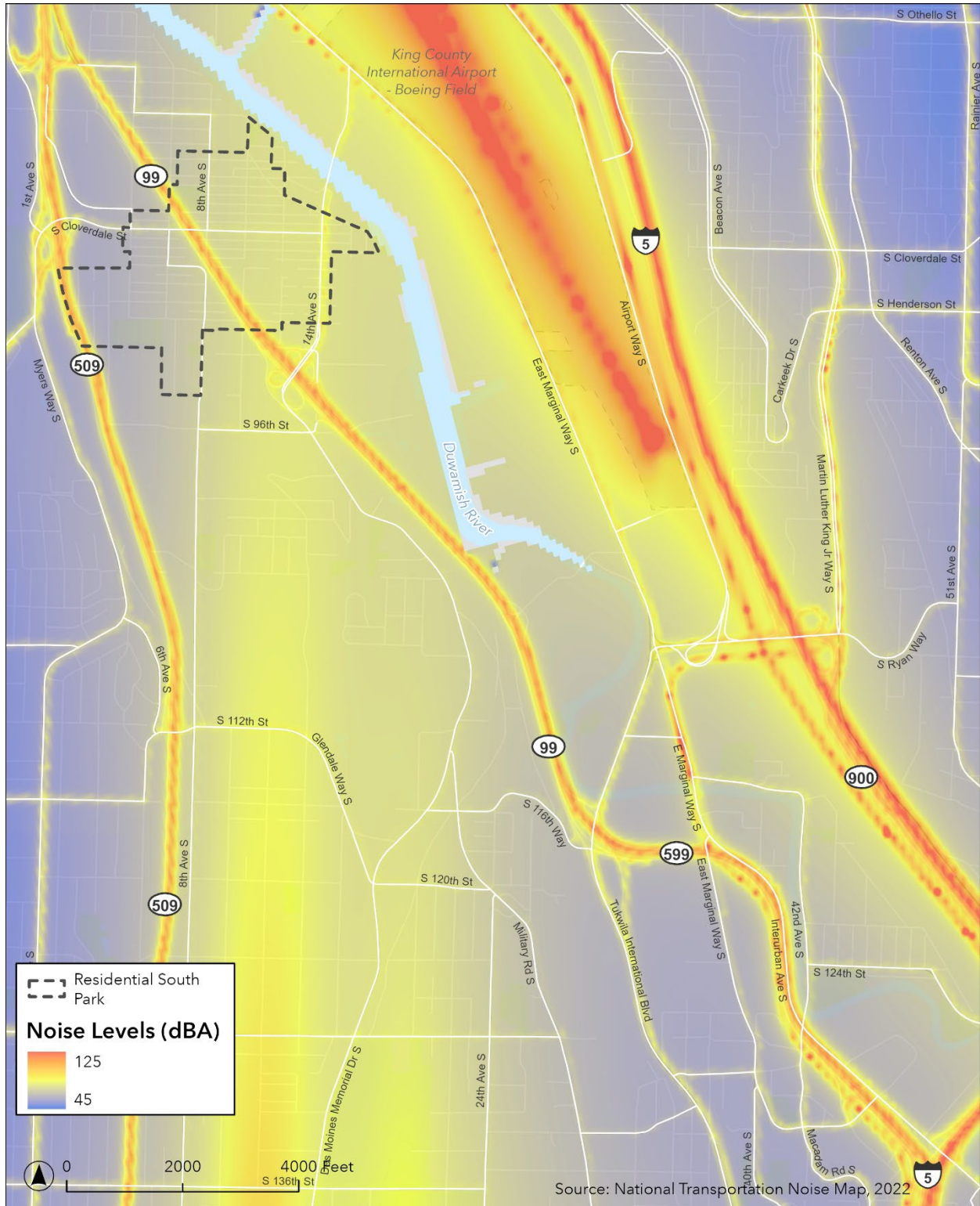


Figure 17: Noise Pollution (National Transportation Noise Map, 2020)



## Regulatory

The regulatory category includes two key risks and considerations related to legal and regulatory conditions: right-of-way ownership and land transfer, and roadway designation and federal status of SR 99. This section discusses key considerations and risks regarding regulatory requirements within each Potential Future.

### **Right-of-Way Ownership and Land Transfer Requirements**

#### *Existing Conditions*

SR 99 accounts for approximately 61 acres in South Park, compared to only 23 acres used for parks, schools and community facilities in the neighborhood. The interchange at SR 99 and 14<sup>th</sup> Ave S / Des Moines Memorial Dr accounts for 25 of SR 99's 61 acres in South Park. This interchange is referred to as the "cloverleaf" in this report and has no access for people walking and biking.

SR 99 is an important land resource and there is excess space with the right-of-way (ROW). The total width of SR 99's right-of-way ranges between 145 to 260 feet for a road that has two travel lanes in each direction. SR 99 has a 23-foot center planting strip median, buffers between the travel lane both the edge of the road and the median ranging from 6 feet to 9 feet totaling up to 33 feet as buffer space within the ROW. The four travel lanes range between 13 feet and 13.5 feet wide each (Figure 18).



Figure 18: Existing SR 99 cross section

Reuse of the SR 99 corridor would need to follow the Washington State Department of Transportation's (WSDOT's) right-of-way policies and procedures, which allow for transfer of rights-of-way to local jurisdiction for a transportation purpose and requires disposition at Fair Market Value for properties that have been determined excess and are not needed for transportation purposes.<sup>11</sup> Additional parcel-specific research would need to be undertaken to identify any real estate restrictions on parcels that may be identified for repurposing. Right-of-way ownership is shown in Figure 19.

<sup>11</sup> WSDOT Right of Way Manual, Chapter 11-7

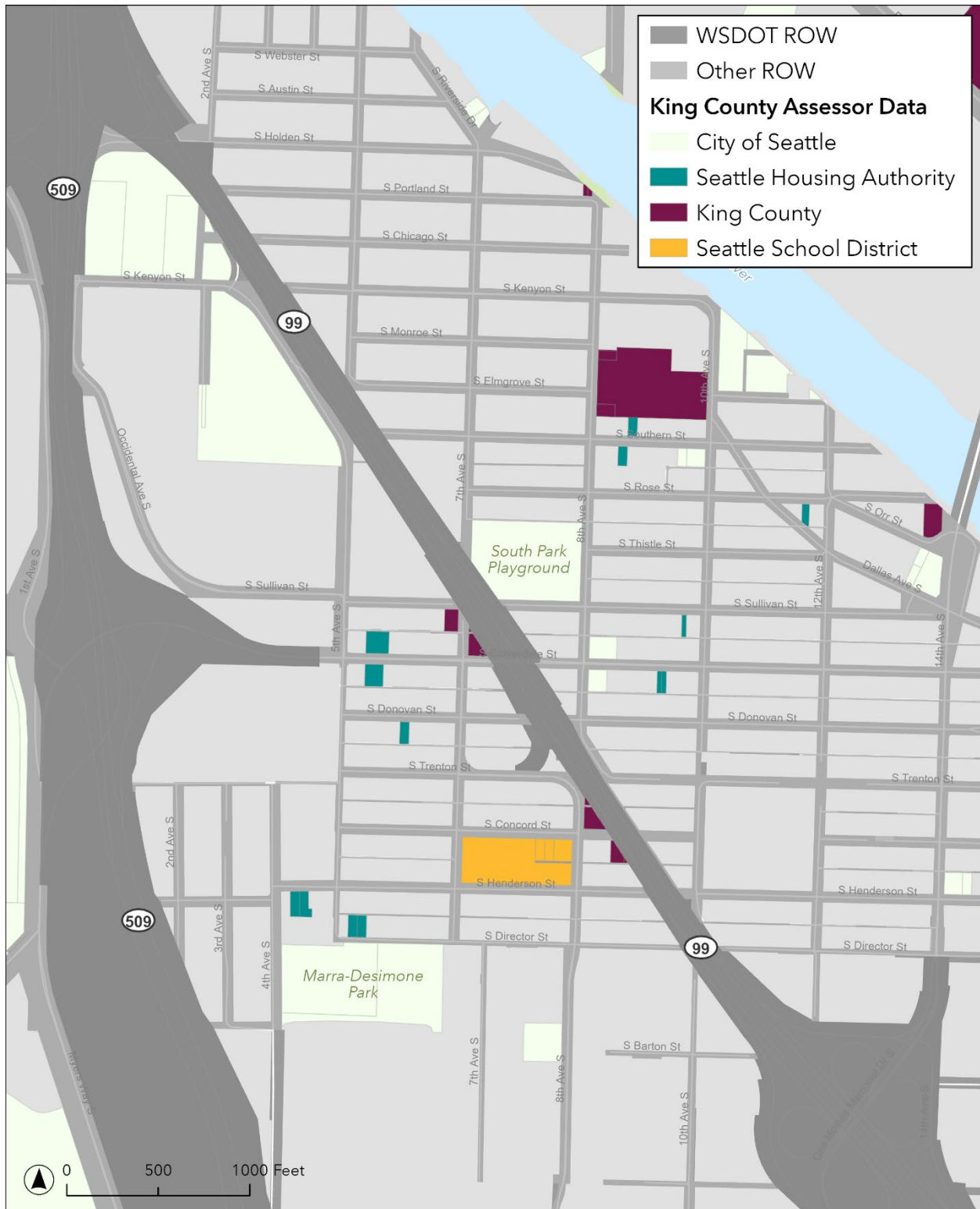


Figure 19: Right-of-way Ownership

*Considerations and Risks*

The SR 99 right-of-way is currently owned by WSDOT. Each Potential Future carries different potential risks and considerations associated with right-of-way ownership. If right-of-way remains in WSDOT ownership or is transferred to another government entity, like the City of Seattle, for continued transportation purposes, no compensation for the right-of-way is required. Bridges or trails can be a “public benefit” which also do not require compensation to the State. Transfer of land for private use requires compensation at Fair Market Value per Washington State Law. Some alternative uses, like parks or public facilities, may be able to demonstrate a “public use or public benefit”. Until the uses of reclaimed land are determined, it is challenging to fully assess this risk and the considerations for the Potential Futures.

An additional challenge with disposition of transportation rights-of-way is that there is often very little land title data. Disposition of land would require extensive research on original deed transfers and surveys to establish boundaries. These are considerations that add potential time and expense to the process, but do not preclude any of the Potential Futures. The “Bridges and Trails” and “Tunnel” Potential Futures carry the least risk as there is less land anticipated to be reclaimed for other uses.

<b>“Reroute and Reclaim”</b>	<b>“Bridges and Trails”</b>	<b>“Boulevard”</b>	<b>“Tunnel”</b>
Moderate risk of limits on reuse of land	Limited risk and limited anticipated change in ROW	Moderate risk of limits on reuse of land	Limited risk and limited anticipated change in ROW

**Roadway Designation and Federal Status**

*Existing Conditions*

SR 99 is part of the National Highway System (NHS), as are other major roads within the Study Area, including SR 509, I-5, E Marginal Way, 14<sup>th</sup> Ave S (north of S Cloverdale St), and Tukwila International Boulevard.<sup>12</sup>

*Considerations and Risks*

Redesignation or removal from the NHS would require consistency with regional and State transportation plans and concurrence from the Federal Highway Administration. Changes to the NHS must follow the Federal regulations in 23 CFR 470 Appendix D.<sup>13</sup> This is a consideration in Potential Futures but does not present a fatal flaw for any of the Potential Futures. All Potential Futures except for “Reroute and Reclaim” have the potential to maintain NHS designation, although depending on the definition of the “Boulevard” Potential Future, redesignation may also be necessary if road no longer meets the criteria in federal

<sup>12</sup> The National Highway System is a series of roadways important to the nation’s economy, defense and mobility.

<sup>13</sup> <https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-470>

regulations. Changes to NHS designation would require additional time for the required approvals by regional, State, and Federal agencies.

<b>“Reroute and Reclaim”</b>	<b>“Bridges and Trails”</b>	<b>“Boulevard”</b>	<b>“Tunnel”</b>
Moderate risk, requires removal from NHS	Limited risk, no change from present	Moderate risk, may require removal from NHS	Limited risk, no change from present

## Operations

The operations category analyzes risks and considerations associated with the potential outcomes of transformational investments. This section explores the implications of each Potential Future on mobility, transportation patterns, safety, and general operations and maintenance of the roadway.

### **Transit and Multimodal Connectivity**

#### *Existing Conditions*

Transit and multimodal connectivity play a vital role in creating accessible and sustainable transportation networks. The connectivity of these modes focuses on functional performance, experience, travel time reliability and ease of transferring between walking or biking and transit rather than the physical infrastructure and access limitations. The latter are discussed below under Multimodal Infrastructure & Barriers.

As shown in Figure 20, there is existing King County Metro service in South Park, but it is harder to access from the southern and western portions of the neighborhood, a challenge made worse by the barrier of SR 99. King County Metro Route 132 connects north/south from Downtown Seattle and SODO through South Park crossing the 1<sup>st</sup> Ave S Bridge and connecting to S Cloverdale St, and 14<sup>th</sup> Ave S before continuing on Des Moines Memorial Dr. King County Metro Route 60 connects from Capitol Hill, Beacon Hill, and Georgetown before crossing the South Park Bridge, and connecting along S Cloverdale St to White Center. There is no current King County Metro bus service south of S Cloverdale and west of SR 99. Figure 12 shows the existing transit networks in the study area.

#### *Considerations and Risks*

In the “Reroute and Reclaim” Potential Future, there may be opportunities for new east/west and north/south transit connections that serve the western and southern parts of the South Park neighborhood that are not currently served by King County Metro service.

In the “Bridges and Trails” and “Tunnel” Potential Futures, there are no changes to King County Metro bus service anticipated, which would continue current access challenges.

The “Boulevard” Potential Future, would enable multiple potential bus routing and connections options along SR 99. Routing and connections would need to be developed

further in partnership with King County Metro and would depend on future land use and community destinations.

<b>"Reroute and Reclaim"</b>	<b>"Bridges and Trails"</b>	<b>"Boulevard"</b>	<b>"Tunnel"</b>
Limited risk, potential transit improvements and multimodal connectivity benefits to be considered	Moderate risk, continued transit access challenges	Limited risk, potential transit improvements and multimodal connectivity benefits to be considered	Moderate risk, continued transit access challenges

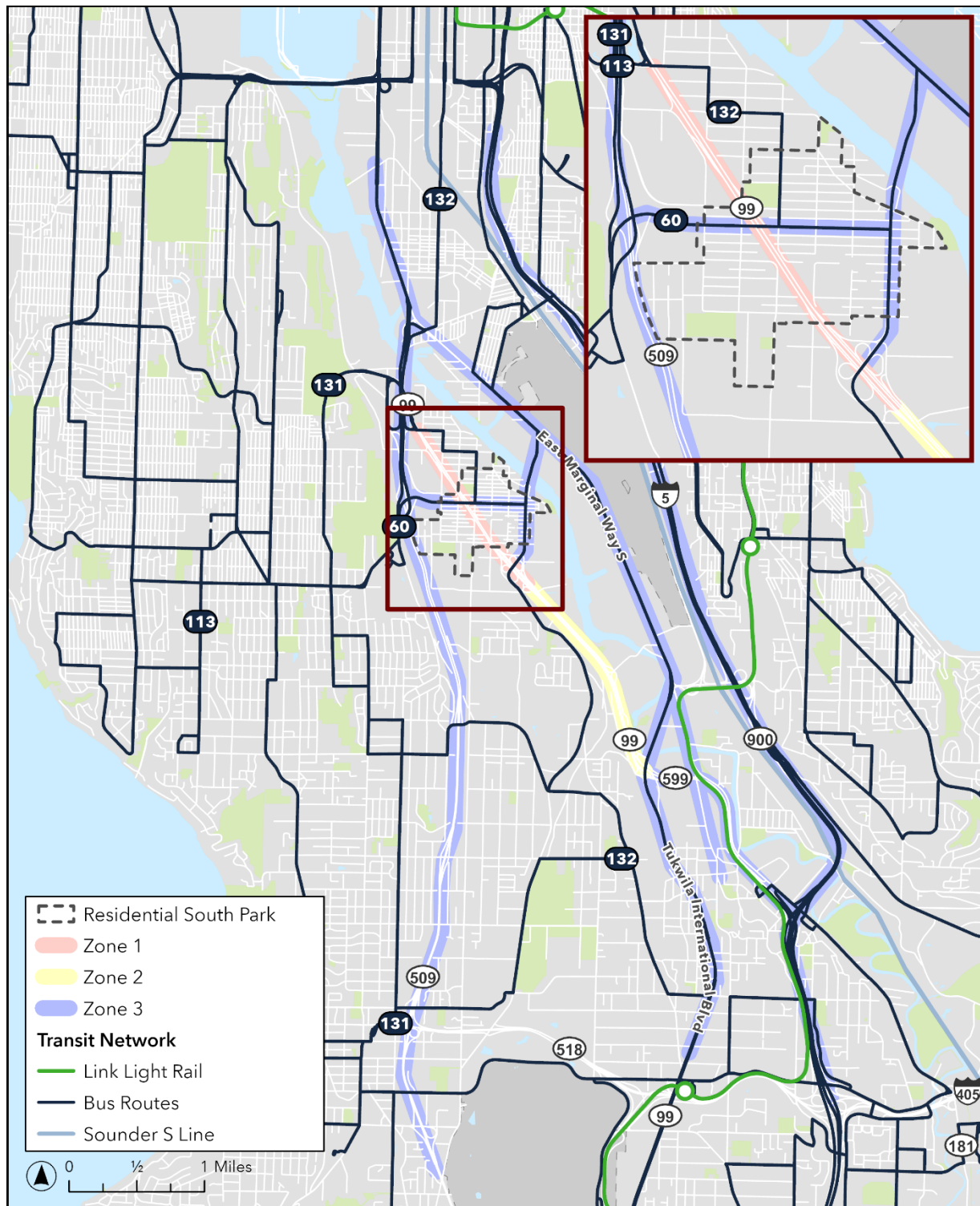


Figure 20: Existing Transit highlighting routes serving South Park

**Traffic Safety and Exposure**

*Considerations and Risks*

The City of Seattle launched the Vision Zero program in 2015 with the goal of ending traffic deaths and serious injuries. Two of the key principles of Vision Zero are that traffic deaths and injuries are preventable and that one life lost due to a vehicular collision is too much. From 2019 to 2023, there were 385 collisions involving injuries in South Park. Twenty-three of these collisions resulted in a person being killed or being seriously injured. On average, between four and five people are killed or seriously injured in South Park every year in traffic crashes. In 2023, the last year for which full year, citywide data is available, there were 27 people killed and 268 seriously injured in Seattle.

Residential South Park, which has narrower streets and slower speeds, has fewer collisions than the surrounding areas with higher-speed roadways and higher traffic volumes. SR 509, SR 99, the 1<sup>st</sup> Ave S Bridge, W Marginal Way, and 14<sup>th</sup> Ave S are all relative hotspots within the study area. Figure 21 shows collisions involving injuries in South Park and the immediate surroundings.

People walking or biking are disproportionately impacted by traffic safety making up 27 percent of all fatal and serious injury collisions in South Park. Six of these collisions occurred on SR 99, seven occurred on SR 509 and ten occurred on local roads. In South Park, State Routes account for 13 out of 23 fatal and serious injury collisions and State Routes have a higher incidence of pedestrian fatal and serious injury collisions compared to local roads.

Each person killed or seriously injured in a traffic collision represents multiple lives altered or tragically ended and each Potential Future has the potential to make investments in transportation safety for all people in South Park. More detail on how each Potential Future may benefit transportation safety for all road users will be developed during subsequent phases of analysis.

<b>"Reroute and Reclaim"</b>	<b>"Bridges and Trails"</b>	<b>"Boulevard"</b>	<b>"Tunnel"</b>
Limited risk, new traffic patterns could change traffic patterns but streets would be designed to current standards.	Limited risk, new crossings would be designed to current standards.	Limited risk, new traffic patterns could change traffic patterns but streets would be designed to current standards.	Limited risk, new crossings would be designed to current standards.

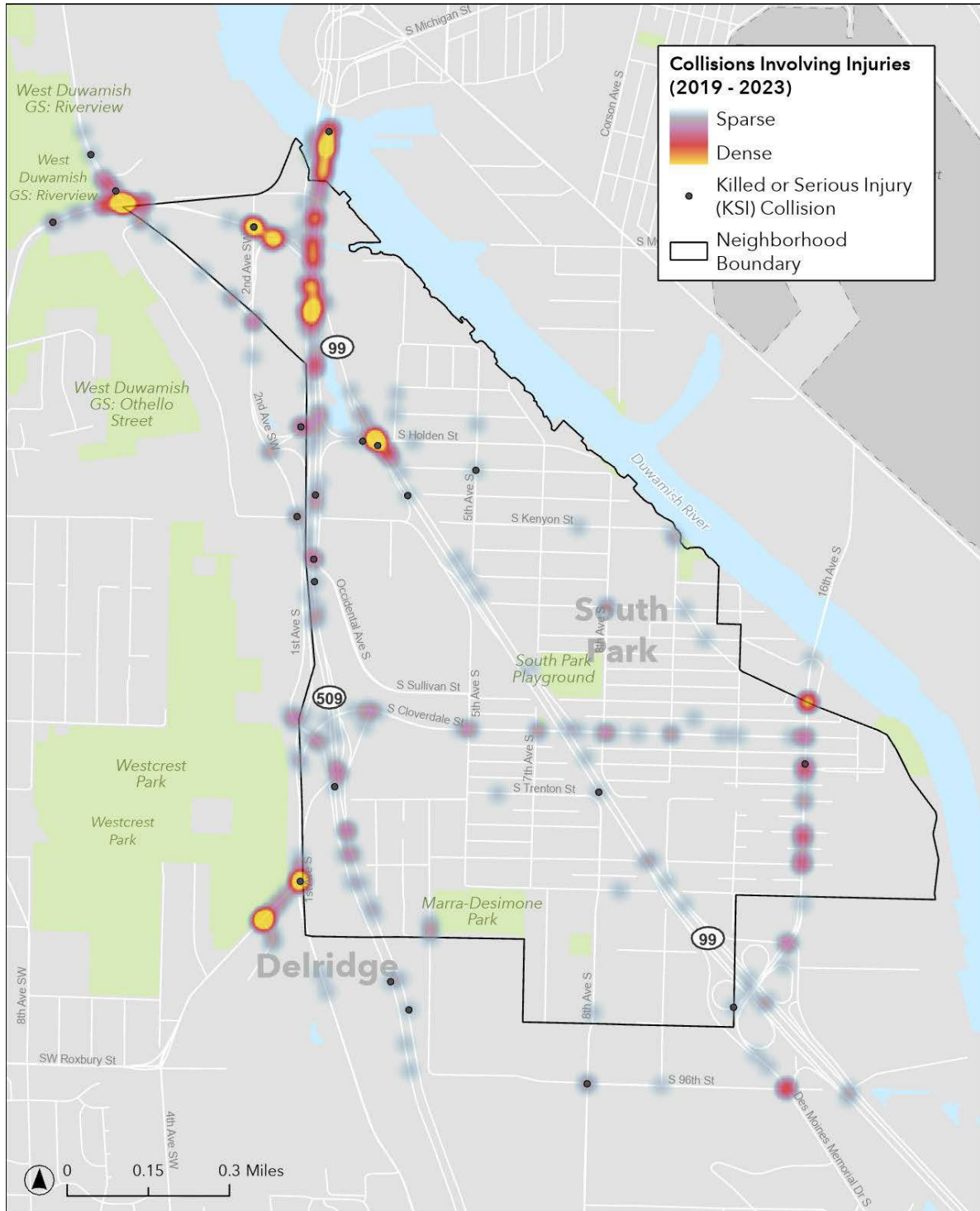


Figure 21: Collisions Involving Injuries (source: WSDOT)



**System Performance and Travel Pattern Impacts**

*Considerations and Risks*

The Potential Futures have various potential impacts on travel patterns within South Park affecting the number of vehicles on each street. This can have direct and indirect impacts on safety and planning for the community, including environmental considerations, safety considerations, and mobility considerations.

The “Bridges and Trails” and “Tunnel” Potential Futures would have minimal changes on travel patterns because the vehicular traffic currently on SR 99 would remain in place. This would mean that the current effects of traffic on the South Park community—in terms of air and noise pollution and transportation safety—would remain in place.

The “Reroute and Reclaim” Potential Future would have substantial changes traffic patterns. This Potential Future removes SR 99 and all through-traffic will be rerouted onto other roads, such as E Marginal Way S, Tukwila International Boulevard, SR 509, and I-5. There is the risk of some of this traffic rerouting onto local streets within South Park. These potential changes to traffic volumes on streets in South Park require further evaluation in subsequent phases of analysis.

The “Boulevard” Potential Future has the potential for reduced traffic volumes within South Park and the potential for new or changed traffic patterns. Fewer vehicles would reroute to other routes than in the “Reroute and Reclaim” Potential Future. This may mean that there continue to be similar air and noise pollution effects as in the “Bridges and Trails” and “Tunnel” Potential Futures. There are also some risks with new traffic patterns of exposure to higher levels of traffic on arterial streets within South Park.

At this level of analysis, it cannot be determined the degree to which changes—or lack of changes—in traffic volumes present risks or opportunities and all Potential Futures carry a moderate risk in this category. Future steps in this process will use travel demand modeling to make predictions about potential travel patterns and evaluate the potential effects of each Potential Future. This additional level of analysis will inform detailed evaluation of each Potential Future and how shifts in travel patterns may affect the South Park community.

<b>“Reroute and Reclaim”</b>	<b>“Bridges and Trails”</b>	<b>“Boulevard”</b>	<b>“Tunnel”</b>
Moderate risk, potential to change traffic volumes on arterial streets in South Park	Moderate risk, no change from existing effects on community	Moderate risk, potential to change traffic volumes on arterial streets in South Park	Moderate risk, no change from existing effects on community

## **Multimodal Infrastructure & Barriers**

### *Existing Conditions*

SR 99 presents significant barriers to safe and comfortable multimodal travel in South Park, with limited connections for people walking and biking throughout the neighborhood.

SR 99 currently exists as a major barrier to community connections making traveling east-west through South Park difficult. Few of the streets have facilities that are comfortable or welcoming for people walking or biking. In the 1.25 miles between S Holden St and Des Moines Memorial Dr S, there are only connections every ½ mile or more. Figure 22 shows the distance between crossings for people walking and biking. These crossings are at S Holden St, S Cloverdale St and S Henderson St.

- S Holden St has a wide intersection with marked crosswalks for pedestrians. East of SR 99, S Holden St is a one-way street with shared lane markings for bicycles (sharrows).
- S Cloverdale St has a narrow 8-foot sidewalk and poor lighting conditions for pedestrians crossing under SR 99. S Cloverdale St also has sharrows for bicyclists crossing under SR 99.
- S Henderson St has a pedestrian bridge which crosses over SR 99. The existing bridge is six feet in width and has a 14 percent grade which makes it non-compliant with Americans with Disabilities Act (ADA) standards, which allow for a maximum 5 percent grade. The narrow width means that it is not comfortable for people walking and biking to pass each other in the same or opposite directions. This pedestrian bridge is included on the City of Seattle's bike network as a Neighborhood Greenway for traveling in both directions. However, while the bridge is a grade separated crossing, due to the width and grade, it is not an acceptable bike or ADA connection.
- The crossing of the "cloverleaf" interchange along Des Moines Memorial Dr S and 14<sup>th</sup> Ave S does not have sidewalks or bike facilities and crosses on/off ramps and has not been included as a crossing in this analysis.

South of Des Moines Memorial Dr S, the next safe crossing for both bicyclists and pedestrians is approximately 3.5 miles away at S 133<sup>rd</sup> St in Tukwila. These limited options for crossing SR 99 all present safety issues for people walking and biking in South Park.

Figure 23 shows existing bike facilities. There are Neighborhood Greenways connecting within South Park, but none of these provide comfortable connections across SR 99. The trail connection between S Henderson Street and S Donovan St is narrow and often overgrown with vegetation. This trail is referred to by South Park residents as the "scary trail". King County plans to extend the 33-mile long Green River Trail to connect to the south end of South Park, approximately at 14<sup>th</sup> Ave S. The Duwamish River Trail connects north from South Park along W Marginal Way and provides access across the Duwamish River on both the 1<sup>st</sup> Ave S Bridge and the Spokane Street Bridge. The City of Seattle has plans to connect South Park with Georgetown via on- and off-street bike lanes to create "All Ages and Abilities" connections.



Figure 22: Distance between Crossings

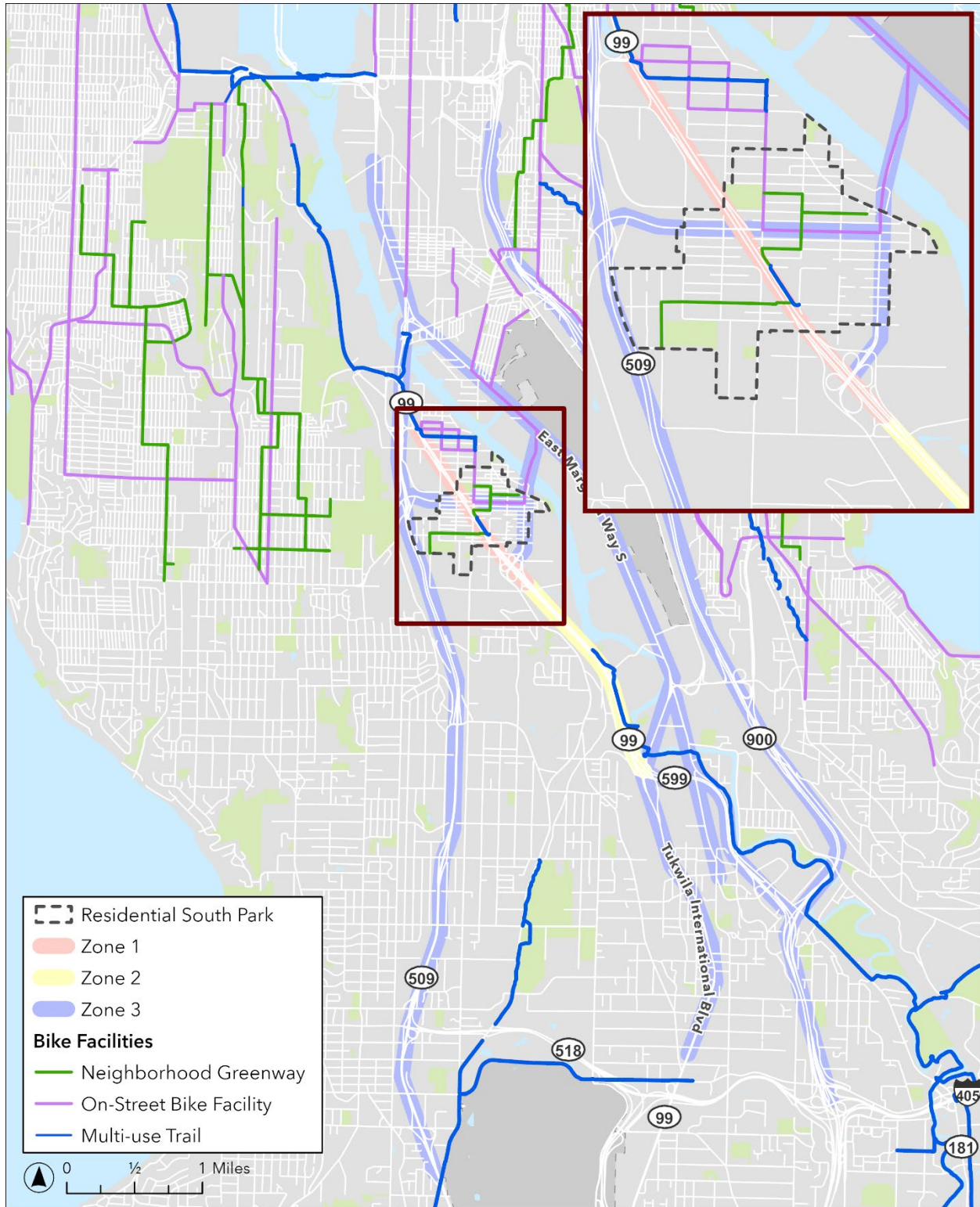


Figure 23: Existing Bike Facilities

*Considerations and Risks*

Each of the four Potential Futures present improvements to the existing multimodal infrastructure and reduces barriers. “Reroute and Reclaim” would reconnect multiple local streets, but may increase the risk of cut-through traffic on these and other neighborhood streets. “Bridges and Trails” would add a new continuous north/south connection for walking and biking within the SR 99 right-of-way. This connection could provide a connection from the Duwamish River Trail to the north to the Green River Trail to the south. The “Boulevard” Potential Future would create new at-grade crossings and expand access. However, increased connectivity and access may increase pedestrian and bicyclist exposure to vehicular traffic. In the “Tunnel” Potential Future, there are many possible configurations of street reconnection depending on where grades for the tunnel would start.

Each of the Potential Futures has the opportunity to provide benefits in this area. Future stages of analysis will add more detail to this understanding.

<b>“Reroute and Reclaim”</b>	<b>“Bridges and Trails”</b>	<b>“Boulevard”</b>	<b>“Tunnel”</b>
Limited risk, potential future connections across former SR 99 ROW to be considered	Limited risk, potential for more frequent and comfortable crossings of SR 99	Limited risk, potential for increased conflict points between people driving vehicles and people walking or riding bikes and potential for more frequent and comfortable crossings of SR 99	Limited risk, potential for more frequent and comfortable crossings of SR 99

**Operations & Maintenance Needs**

*Considerations and Risks*

Each Potential Future presents distinct risks and considerations related to ongoing operations and maintenance. Among the scenarios, the “Tunnel” Potential Future carries the most significant operational burden. A tunnel would require complex mechanical systems, including ventilation and fire safety infrastructure, as well as an on-site tunnel operations center. These facilities not only introduce substantial long-term maintenance needs but also reduce the amount of land available for other community uses. In addition to localized systems, a fiber optic connection to WSDOT’s central tunnel operations center would likely be necessary, adding to the complexity and cost.

Annual maintenance costs for tunnel infrastructure can reach multiple millions of dollars, making this a major feasibility concern. Further technical analysis is needed to confirm the degree of mechanical ventilation that would be required for a potential tunnel lid. In general,

tunnels longer than 1,500 feet require active ventilation systems, and the South Park tunnel could span up to 3,500 feet—well beyond that threshold. Factors such as traffic volume and air quality would influence the final design requirements.

The “Bridges and Trails” Potential Future would also increase maintenance responsibilities, primarily due to the addition of new bridge structures along the SR 99 corridor. In contrast, the “Reroute and Reclaim” scenario would reduce the total transportation right-of-way in the neighborhood, thereby easing the ongoing maintenance workload for transportation agencies. The “Boulevard” option would resemble typical urban streets, with operations and maintenance needs more aligned with those already managed by the City of Seattle.

An important consideration across all Potential Futures is identifying which agencies or entities would be responsible for operating and maintaining new infrastructure. Clear delineation of roles and funding responsibilities will be critical to long-term success.

<b>“Reroute and Reclaim”</b>	<b>“Bridges and Trails”</b>	<b>“Boulevard”</b>	<b>“Tunnel”</b>
Limited risk, roadway removal would reduce O&M costs	Moderate risk, similar to current conditions with additional bridges and parks	Limited risk, similar to existing with reduced structural maintenance	High risk, on-site control room, ventilation, and other needs

## Fatal Flaw Screening Summary Table

The risks and considerations in the previous section have been summarized as they apply to the Potential Futures in Table 2. Risks have been color coded as:

Green: Limited risk	Blue: Moderate risk	Orange: High Risk	Dark Orange: Fatal Flaw
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Based on this evaluation, the "Tunnel" Potential Future carries multiple substantial risks and fatal flaws and is recommended to be removed from further study. This evaluation summary will continue to evolve and incorporate more detailed assessment and additional factors as the definition and evaluation of Potential Futures advances.

Table 2: Potential Futures Risk and Fatal Flaws Summary

		"Reroute and Reclaim"	"Bridges and Trails"	"Boulevard"	"Tunnel"
Infrastru	<b>Seismic Stability of Existing Structures</b>	Limited risk	Moderate risk	Limited risk	Limited risk
	<b>Subsurface Utilities</b>	Limited risk	Limited risk	Moderate risk	Fatal flaw
Environmental	<b>Soil, Geotechnical Conditions &amp; Floodplain</b>	Limited risk	Moderate risk	Limited risk	Fatal flaw
	<b>Hazardous Materials and Contaminated Soils</b>	Moderate risk	Moderate risk	Moderate risk	Fatal flaw
	<b>Historic and Cultural Resources</b>	Moderate risk	Moderate risk	Moderate risk	High risk
	<b>Stormwater, Drainage, and Sea Level Rise</b>	Limited risk	Moderate risk	Limited risk	Fatal flaw
	<b>Air Quality, Noise, and Environmental Health</b>	Limited risk	High risk	Limited risk	High risk
Regula	<b>Right-of-Way Ownership and Land Transfer Requirements</b>	Moderate risk	Limited risk	Moderate risk	Limited risk
	<b>Roadway Designation and Federal Status</b>	Moderate risk	Limited risk	Moderate risk	Limited risk
Operations	<b>Transit and Multimodal Connectivity</b>	Limited risk	Moderate risk	Limited risk	Moderate risk
	<b>Traffic Safety and Exposure</b>	Limited risk	Limited risk	Limited risk	Limited risk
	<b>System Performance and Travel Pattern Impacts</b>	Moderate risk	Moderate risk	Moderate risk	Moderate risk
	<b>Multimodal Infrastructure &amp; Barriers</b>	Limited risk	Limited risk	Limited risk	Limited risk
	<b>Operations &amp; Maintenance Needs</b>	Limited risk	Moderate risk	Limited risk	High risk

## Conclusion and Next Steps

This memorandum defines the Potential Futures, documents the existing conditions in the South Park neighborhood and presents considerations and risks for each of the Potential Futures. The "Tunnel" Potential Future has substantial risks presenting as fatal flaws across multiple categories that disqualifies it from further consideration. The "Boulevard" and "Reroute and Reclaim" Potential Futures have no high risks or fatal flaws. The "Bridges and Trails" Potential Future has one high risk that will need to be investigated further. It is recommended that the "Bridges and Trails," "Boulevard," and "Reroute and Reclaim" Potential Futures move forward with further development and evaluation.

Table 3: Summary of risk screening

Potential Future	Limited Risk Areas	Moderate-Risk Areas	High-Risk Areas	Fatal Flaws
"Reroute and Reclaim"	9	5	0	0
"Bridges and Trails"	5	8	1	0
"Boulevard"	8	6	0	0
"Tunnel"	5	2	3	4

### Next Steps

The findings of this memo will be combined with the definition of evaluation measures and methods to perform additional investigation and detailed evaluation of the Potential Futures. The "Boulevard" Potential Future has two potential approaches. A "Wider Boulevard" would have two travel lanes in each direction, similar to the new Alaskan Way along the Central Waterfront between Columbia St and Pike St, and most traffic currently using SR 99 would be accommodated. A "Narrower Boulevard" would have one travel lane in each direction, similar to the recent reconstruction of Delridge Way SW between SW Juneau St and SW Andover St. In the next steps of this analysis, these two approaches will be further developed and evaluated as individual Potential Futures.



Table 4 includes the definitions and key differences between the four Potential Futures recommended to be included for further development and evaluation during the next phase of this project.

Table 4: Potential Futures Recommended for Further Analysis

Potential Future	“Reroute and Reclaim”	“Bridges and Trails”	“Wider Boulevard”	“Narrower Boulevard”
<b>Reclaimed Land within South Park</b>	~47 acres with range of sizes	~13 acres primarily at “cloverleaf”	~27.5 acres with mix of smaller and larger parcels	
<b>New and Improved Crossings</b>	City streets reconnected with multimodal and bike/ped only streets	New grade separated crossings	Multimodal, at grade crossings every 400-600 feet	
<b>SR 99 Vehicles</b>	Rerouted to other routes	Remain in place	Reduced capacity for through autos	Through traffic discouraged
<b>Potential changes to SR 99 south of South Park</b>	Rerouted to Tukwila International Boulevard	Remain in place	Converted to city street with through traffic discouraged	
<b>New Transit Connections</b>	None	None	Transit routing to be determined based on further refinement	