



August 2018  
Seattle Aquarium Ocean Pavilion

# Draft Environmental Impact Statement

Prepared for City of Seattle Department of Parks and Recreation and Seattle Aquarium Society



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Seattle Aquarium Ocean Pavilion

# Draft Environmental Impact Statement

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**Americans with Disabilities Act (ADA) Information**

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**Civil Rights Act of 1964, Title VI Statement to the Public**

The City of Seattle hereby gives public notice that it is the policy of the department to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and related statutes and regulations in all programs and activities. Title VI requires that no person in the United States of America shall, on the grounds of race, color, sex, nation origin, disability, or age, be excluded from the participation in, be denied benefits of, or be otherwise subjected to discrimination under any program or activity for which the department receives federal financial assistance. Persons wishing information may call the City of Seattle Office of Civil Rights at (206) 684-4500.



August 30, 2018

Dear Agencies, Tribal Governments, and Members of the Public,

The Seattle Aquarium Society (SEAS), in coordination with the City of Seattle Department of Parks and Recreation (Seattle Parks and Recreation), is proposing the Seattle Aquarium Ocean Pavilion (Ocean Pavilion) to further its mission of *Inspiring Conservation of our Marine Environment*, accommodate an expected increase in future attendance, provide a continuous connection with the existing Seattle Aquarium, support programming, and offer opportunities for public open space and enjoyment of the shoreline. This Washington State Environmental Policy Act (SEPA) Draft Environmental Impact Statement (Draft EIS) evaluates a range of alternatives for the proposed Ocean Pavilion. This Draft EIS focuses on potential impacts and proposed mitigation measures for the following elements of the environment:

- Transportation and Parking
- Land Use
- Aesthetics and Scenic Resources
- Historic and Archaeological Resources
- Water Quality
- Fish and Aquatic Resources

Based on a technical evaluation of the alternatives that occurred after the scoping process, the Draft EIS indicates that no significant adverse impacts are anticipated to occur from the proposed action. According to Seattle Municipal Code 25.05.440(E) and Washington Administrative Code 197-11-440(6)(a), elements of the environment that are not significantly affected do not need to be evaluated. However, Seattle Parks and Recreation and SEAS believe that it is important to provide this information to decisionmakers and the public.

Seattle Parks and Recreation and SEAS invite you to comment on this Draft EIS. The Fact Sheet included in the Draft EIS provides instructions for submitting comments and details regarding the public hearing on the Draft EIS, which is scheduled for September 27, 2018. Comments on the Draft EIS are due by October 1, 2018.

Sincerely,

A handwritten signature in black ink that reads "Christopher Williams".

Christopher Williams, Interim Superintendent  
Seattle Parks and Recreation

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## ABBREVIATIONS

ADA	Americans with Disabilities Act
AWPOW	Alaskan Way, Promenade, and Overlook Walk
AWVRP	Alaskan Way Viaduct Replacement Program
bgs	below ground surface
BMP	best management practice
City	City of Seattle
CSO	combined sewer overflow
DJC	<i>Daily Journal of Commerce</i>
DPS	distinct population segment
EBSP	Elliott Bay Seawall Project
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
ESU	evolutionarily significant unit
gpm	gallon per minute
LOS	Level of Service
Metro	King County Metro
MLLW	mean lower low water
NRHP	National Register of Historic Places
NPDES	National Pollutant Discharge Elimination System
NPGIS	non-pollutant generating impervious surface
Ocean Pavilion	Seattle Aquarium Ocean Pavilion
PCB	polychlorinated biphenyl
POTW	publicly owned treatment works
RCW	Revised Code of Washington
SDOT	Seattle Department of Transportation
SEAS	Seattle Aquarium Society
Seattle Parks and Recreation	City of Seattle Department of Parks and Recreation
SEPA	State Environmental Policy Act
SMC	Seattle Municipal Code
SPU	Seattle Public Utilities
SR	State Route
WAC	Washington Administrative Code
WHR	Washington Heritage Register
WSDOT	Washington State Department of Transportation
WSF	Washington State Ferries

# FACT SHEET

## **Project Name**

Seattle Aquarium Ocean Pavilion

## **Proposed Action**

The proposed action would create a new building to the east of the existing Aquarium, which is located on Piers 59 and 60, and east of the future Waterfront Promenade. The proposed building would be adjacent to the City of Seattle's future Overlook Walk and would include approximately 48,000 gross square feet of public Aquarium exhibits and associated support space. The proposed action would also include an off-site Animal Care Center to address both short- and long-term animal care, veterinary, and rehabilitation needs.

## **Project Proponent**

Seattle Aquarium Society  
1483 Alaskan Way  
Seattle, Washington 98101

## **State Environmental Policy Act Lead Agency**

City of Seattle  
Department of Parks and Recreation  
100 Dexter Avenue North  
Seattle, Washington 98109

## **State Environmental Policy Act Responsible Official**

Christopher Williams, Interim Superintendent  
City of Seattle Department of Parks and Recreation

## **Date of Issuance for the Draft Environmental Impact Statement (EIS)**

August 30, 2018

## **Comment Period**

The comment period will begin on the date the Notice of Availability is published in the State Environmental Policy Act register: <https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-Register>. Notice is anticipated to be published on August 30, 2018, and the 32-day comment period will conclude on October 1, 2018.

## **Comments Due**

October 1, 2018

### **Comment Submittal and Contact Information**

Written comments can be submitted through the website at [www.seattleaquarium.org/planning](http://www.seattleaquarium.org/planning), by email at [opeiscomments@seattleaquarium.org](mailto:opeiscomments@seattleaquarium.org), or by mail:

Seattle Aquarium EIS Comments  
c/o Anchor QEA  
720 Olive Way, Suite 1900  
Seattle, Washington 98101

### **Draft EIS Public Meeting**

A public meeting to provide project-related information and receive comments from the public and interested parties on the Draft EIS will be held as follows:

Thursday, September 27, 2018, from 5:00 to 7:00 p.m.  
Friends of Waterfront Seattle Waterfront Space  
1400 Western Avenue  
Seattle, Washington 98101

The meeting location is accessible to persons with disabilities. Printed copies of public hearing materials or requests for sign language interpretation for the hearing impaired or other special assistance needs may be provided by prior request at least 24 hours before the meeting via email ([opeiscomments@seattleaquarium.org](mailto:opeiscomments@seattleaquarium.org)).

### **Document Availability and Cost**

The Draft EIS is available online at: <https://www.seattleaquarium.org/planning>.

Printed copies of the Draft EIS and supporting are available for review at no cost at the following locations:

Seattle Department of Construction and Inspections  
Public Resource Center  
700 Fifth Avenue, Suite 2000  
Seattle, Washington 98124

Seattle Public Library, Central Library  
1000 Fourth Avenue  
Seattle, Washington 98104

Additional copies may be purchased for the cost of reproduction (email [opeiscomments@seattleaquarium.org](mailto:opeiscomments@seattleaquarium.org)).

### **Permits and Approvals**

- Clean Water Act Section 402 National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit (Washington State Department of Ecology [Ecology])
- NPDES Industrial Wastewater Discharge Permit (Ecology)
- Master Use Permit with Shoreline Substantial Development component (City of Seattle)
- Building Permit (City of Seattle)

- Term Permit (Seattle City Council)
- Street Use Permit (City of Seattle)
- Seattle Design Commission review (City of Seattle)

### **Related Documents**

Background data and materials used for this Draft EIS are listed in Section 5. Key documents used in this analysis include the following:

- Seattle Department of Transportation (SDOT) Alaskan Way, Promenade, and Overlook Walk Draft EIS (SDOT 2015a), Supplemental Draft EIS (SDOT 2016a), Final EIS (SDOT 2016b), and appended discipline reports
  - Documents available at: <https://waterfrontseattle.org/environmental>
- Washington State Department of Transportation Alaskan Way Viaduct Replacement Program environmental documentation, including Draft EIS (WSDOT 2004), two Supplemental Drafts (WSDOT 2006, 2010), Final EIS (WSDOT 2011), and appended discipline reports
  - Documents available at: <http://www.wsdot.wa.gov/Projects/Viaduct/Library/Environmental>
- SDOT Elliott Bay Seawall Project Draft EIS (SDOT 2012), Final EIS (SDOT 2013a), Draft Supplemental EIS (SDOT 2013b), Final Supplemental EIS (SDOT 2014), and appended discipline reports
  - Documents available at: <https://waterfrontseattle.org/seawall>

### **Subsequent Environmental Review**

After the Draft EIS comment period concludes, the lead agency will review and respond to comments. Then, a Final EIS will be prepared that includes responses to the comments and potential updates to the environmental documents. The Final EIS is anticipated to be published in late 2018.

### **Authors and Principal Contributors**

The list of authors and principal contributors can be found in Section 6.



## Executive Summary

### Introduction

The Seattle Aquarium Society (SEAS), in coordination with the City of Seattle Parks and Recreation Department (Seattle Parks and Recreation), is proposing the Seattle Aquarium Ocean Pavilion (Ocean Pavilion) to further its mission of *Inspiring Conservation of our Marine Environment*, accommodate an expected increase in future attendance, provide a continuous connection with the existing Seattle Aquarium and support programming, and offer opportunities for public open space and enjoyment of the shoreline.

This Washington State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) has been prepared to evaluate a range of alternatives for the proposed Ocean Pavilion. The proposed Ocean Pavilion would be located along Seattle's central waterfront, just east of the existing Seattle Aquarium facilities on Piers 59 and 60 (Figure ES-1). The proposed action also includes an off-site Animal Care Center, which may be located on Harbor Island at the former Fisher Flour Mill or a similar facility, to address both short- and long-term animal care and veterinary and rehabilitation needs, and to meet the Association of Zoos and Aquariums' standards. The Animal Care Center would support the objectives of the proposed action by providing necessary animal care for ongoing and future Aquarium exhibits and programs.



**Figure ES-1  
Vicinity Map**

As the SEPA lead agency, Seattle Parks and Recreation had initially determined during scoping that this proposed action would likely have a significant adverse impact on the environment. Therefore, this EIS has been prepared to meet the SEPA procedural requirements outlined in Revised Code of Washington Chapter 43.21C and Seattle Municipal Code (SMC) Chapter 25.05. SEPA requires lead agencies to evaluate how the proposed action would be implemented, along with the potential impacts and mitigation that could result from the implementation of the action alternatives and the No Action Alternative, prior to making a project decision. Existing environmental documents are incorporated by reference, to the extent practicable, to support the evaluation of proposed actions, alternatives, or environmental impacts, consistent with SMC 25.05.600 and Washington Administrative Code (WAC) 197-11-635. The construction of an "Aquarium Pavilion" was reviewed by the City of Seattle (City) as part of the Alaskan Way, Promenade, and Overlook Walk (AWPOW) SEPA EIS (SDOT 2016a, 2016b). Information and analysis from the AWPOW EIS is incorporated by reference into the analysis and findings of this Draft EIS, in accordance with the previously referenced regulations.

Based on a technical evaluation of the alternatives that occurred after scoping, the Draft EIS indicates that no significant adverse impacts are anticipated to occur from the proposed action. According to SMC 25.05.440(E) and WAC 197-11-440(6)(a), elements of the environment that are not significantly affected do not need to be evaluated. However, Seattle Parks and Recreation and SEAS believe that it is important to provide this information to decision-makers and the public.

## Background

The Seattle Aquarium opened on May 20, 1977, and was initially owned and operated by Seattle Parks and Recreation. SEAS assumed management and operations of the Aquarium in 2010 under an agreement with Seattle Parks and Recreation. Since then, Seattle Parks and Recreation has continued to provide design support and funding to SEAS for expansion of the Seattle Aquarium through subsequent agreements, including the east end renovation of the shell and core of Pier 59 in 2007 and the replacement of piling and decking on the finger pier of Pier 60 in 2014.

The proposed Ocean Pavilion represents a culmination of recent master planning efforts, starting in 2014, in coordination with the City. This refined concept is based on outreach to tribes, regulatory agencies, and the affected community and results in a reduced level of impacts as compared to previous Seattle Aquarium overwater expansion planning efforts. The Ocean Pavilion is being proposed as a separate and independent project from Waterfront Seattle, including the AWPOW projects, and other ongoing projects. However, the proposed action is intended to anchor these projects and reconnect the city with Puget Sound and its central waterfront.

## Proposal Objectives

The following Ocean Pavilion objectives will be used as the basis for evaluating the alternatives:

- Accommodate a 40% increase in expected attendance and visitors, which requires an approximately 48,000-square-foot building and pedestrian and Americans with Disabilities Act (ADA) pathways

- Provide a continuous connection with the existing Seattle Aquarium to facilitate movement of visitors, volunteers, and staff, and to support Aquarium programming
- Provide opportunities for public open space and enjoyment of the shoreline
- Create a space that supports the Aquarium’s mission of *Inspiring Conservation of Our Marine Environment* and provides the public with a global ocean experience

## Community, Agency, and Tribal Engagement

Seattle Parks and Recreation and SEAS issued a Determination of Significance and Scoping Notice for the Ocean Pavilion on May 7, 2018. As part of the scoping process, Seattle Parks and Recreation and SEAS invited comment from agencies, tribal governments, and members of the public during the scoping period (May 7 to May 28, 2018). During this time, interested parties were encouraged to provide input on the EIS scope relating to the objectives, range of alternatives, probable significant adverse impacts, and elements of the affected environment to be analyzed in this EIS. A public scoping meeting was held on May 24, 2018, which included a presentation introducing the proposed action, informational poster boards, and comment forms and boxes. SEAS also conducted individual outreach to parties within the community to discuss the proposed action.

## Alternatives Evaluated

### *Development of Alternatives*

In 2015, SEAS published a master plan showing design concepts that included renovating Pier 59, renovating and expanding Pier 60 over water, and introducing a Seattle Aquarium facility aligned with the future Overlook Walk—the City’s planned pedestrian bridge between the Seattle waterfront and Pike Place Market (SEAS 2015). The range of potential action alternatives for the Ocean Pavilion were refined during and after development of the 2015 master plan and are based on the results of scoping.

The following three alternatives have been evaluated in this EIS:

- Alternative 1: No Action Alternative
- Alternative 2
- Alternative 3

### *Alternative 1: No Action Alternative*

Under Alternative 1 (No Action Alternative), the Ocean Pavilion would not be built. However, conditions in the area would be different from those that exist at the time this EIS is published (2018). The analysis for the No Action Alternative is based on the expected conditions in 2030, which is the year used for the assessment of future conditions. The following major changes are assumed to be in place under the No Action Alternative:

- The AWPOW projects identified in the preferred alternative within the AWPOW EIS would be completed. The AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects’ design process.

- The Alaskan Way Viaduct Replacement Program (AWVRP) would be completed, with the viaduct eliminated and the State Route 99 tunnel in operation.
- The Elliott Bay Seawall Project (EBSP) would be completed.
- Ongoing public and private development projects that are currently being permitted through the Seattle Department of Construction and Inspections would be completed, with an additional projected baseline growth of 1% per year.

A description of the AWPOW's selected preferred alternative is included in Section 2.3 of the AWPOW EIS (SDOT 2016a and 2016b). The main difference between the two proposals is that the No Action Alternative for the Ocean Pavilion does not include construction of the "Aquarium Pavilion," which was one option described as part of the AWPOW's preferred alternative. Descriptions of the AWVRP and EBSP are included in Section 2.2 of the AWPOW EIS (SDOT 2016a, 2016b).

### **Office of the Waterfront and Civic Projects' Potential Design Refinements**

As stated previously, the AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects' design process. As of the publication of this EIS, the conceptual design of the Overlook Walk lid (or bridge) connecting the waterfront to Pike Place Market over Elliott Way would be narrower (90 feet versus 190 feet) and higher (50 feet versus 40 feet) than the design in the AWPOW EIS. In addition, Building B would be replaced by a smaller one-story building with a covered outdoor café and seating area on its roof. Public stairs and elevators would maintain connections from the Overlook Walk to the waterfront. These refined conditions were used in assessing the range of impacts of the action alternatives as compared to No Action Alternative and potential design refinements.

## *Action Alternatives*

### **Alternative 2**

Alternative 2 includes the Ocean Pavilion concept evaluated as one option for the preferred alternative under the AWPOW EIS (referred to as the "Aquarium Pavilion" in the AWPOW EIS).

### **Alternative 3**

The Ocean Pavilion concept in Alternative 3 would be located farther south from Pine Street than Alternative 2, with closer connections to the existing Seattle Aquarium facility, enhanced public access and views of the water, and better integration with the future Overlook Walk design refinements.

#### **Preferred Alternative Selection**

Seattle Parks and Recreation and SEAS have selected Alternative 3 as the preferred alternative. The Ocean Pavilion design best meets the objectives with the least environmental impacts during construction and in the long term.

As compared to the other alternatives, Alternative 3 provides closer connections to the existing Seattle Aquarium facility, enhanced public access and views of the water, and better integration with the future Overlook Walk design refinements.

## Comparison of Action Alternatives

Table ES-1 provides a comparison of the action alternatives based on orientation, height, floors, dimensions, façade, rooftop public open space, and public circulation.

**Table ES-1**  
**Comparison of Design Features for Alternative 2 and Alternative 3**

Feature(s)	Alternative 2	Alternative 3
<b>Orientation</b>	<ul style="list-style-type: none"> <li>The Ocean Pavilion would be located farther north toward Pine Street than Alternative 3, resulting in a greater distance from the entrance to the existing Seattle Aquarium entrance, thereby slightly reducing accessibility for visitors, volunteers, staff, and Aquarium programs compared to Alternative 3.</li> <li>The north and westward orientation of the Ocean Pavilion from the future Overlook Walk would constrict the public open space between the building and Pier 60, Piers 62/63, and the Elliott Bay shoreline.</li> </ul>	<ul style="list-style-type: none"> <li>The Ocean Pavilion would be located farther south from Pine Street than Alternative 2, resulting in a shorter distance from the entrance to the existing Seattle Aquarium entrance, thereby improving accessibility for visitors, volunteers, staff, and Aquarium programs compared to Alternative 2.</li> <li>The orientation of the Ocean Pavilion would provide additional public open space between the building and Pier 60, Piers 62/63, and the Elliott Bay shoreline, including space to provide a wider stairwell in the future Overlook Walk design.</li> </ul>
<b>Height</b>	The 40-foot building height would provide partially obstructed public views of Elliott Bay from the rooftop.	The 50-foot building height would provide unobstructed public views of Elliott Bay from the rooftop.
<b>Floors</b>	The Ocean Pavilion would have three aboveground floors and one basement floor.	Same as Alternative 2 with a smaller basement floor
<b>Dimensions</b>	48,000 gross square feet; approximately 165 feet long and 140 feet wide (at maximum, width varies); basement approximately 26,100 square feet (0.6 acre)	48,000 gross square feet; approximately 180 feet long and 106 feet wide (at maximum, width varies); basement approximately 17,400 square feet (0.4 acre)
<b>Façade</b>	Various façades, with reinforced concrete for the structural components of the building	Same as Alternative 2
<b>Rooftop Public Open Space</b>	<ul style="list-style-type: none"> <li>The rooftop public open space would be approximately 13,100 square feet (0.3 acre).</li> <li>The roof would include limited landscaping.</li> </ul>	<ul style="list-style-type: none"> <li>The rooftop public open space would be approximately 17,400 square feet (0.4 acre).</li> <li>The roof would include approximately 3,500 square feet of landscaped area.</li> </ul>
<b>Public Circulation</b>	<ul style="list-style-type: none"> <li>An interior public elevator and stairs (accessible from the exterior of the building) would be located on the exterior of the southwest corner of the Ocean Pavilion building.</li> <li>The public elevator and south stairs would provide a direct connection from the Aquarium Plaza and promenade to the Elliott Bay shoreline, while the north stairs would connect the Pike Place Market to Elliott Bay.</li> <li>Direct views to the water from the public stairs may be blocked by the Ocean Pavilion building.</li> </ul>	<ul style="list-style-type: none"> <li>A public elevator and stairs would be located on the exterior of the southeast corner of the Ocean Pavilion building. Additional interior elevator(s) would be provided for visitor access in the Ocean Pavilion (for ticketed guest use only).</li> <li>The exterior public elevator would be more visible than Alternative 2, and both the elevator and stairs would connect directly to the new public open space created by the Aquarium roof as well as the sidewalk on the west side of the new Alaskan Way, adjacent to the plaza and promenade, near the Elliott Bay shoreline.</li> <li>Direct views to the water from the exterior public elevator and stairs would be provided.</li> </ul>

### **Off-Site Animal Care Center for Alternatives 2 and 3**

As previously described, an off-site Animal Care Center is proposed to address both short- and long-term animal care, veterinary, and rehabilitation needs and to meet the Association of Zoos and Aquariums' standards. The most immediate need is to provide necessary animal care to support the opening of the Ocean Pavilion and the turtle rehabilitation program. The Animal Care Center would also be a long-term care facility that supports SEAS' exhibit animal population, animal rehabilitation, and research efforts.

The Animal Care Center would be designed to meet peak animal care demand for the Seattle Aquarium exhibits and programs. The center is intended to meet the care needs of both warm- and cold-water fish, birds and mammals, and rehabilitating animals. The center would also provide long-term care, including life support systems, with flexibility in the design to accommodate future needs.

### **Alternatives Considered but Not Carried Forward**

As part of the 2014-2015 Seattle Aquarium master planning process, expansion alternatives included two overwater options (north and south of the Seattle Aquarium facilities) and one upland location. All of the alternatives were determined to offer sufficient site area to accommodate future growth. However, the overwater options were not carried forward due to the permitting challenges, cost and complexity of in-water construction, and potential impacts on the aquatic environment. Additionally, SEAS determined that an expansion at the south location could affect views of Elliott Bay and the Olympic Mountains from Waterfront Park. The overwater options were also determined to be inconsistent with the objective of providing increased opportunities for public open space.

SEAS also considered alternatives to expand the Seattle Aquarium facilities off site from the Seattle central waterfront location. It was determined through the alternatives evaluation process that constructing the Ocean Pavilion, or a similar building, at an off-site location would break up the campus and be inconsistent with the objective of providing a continuous connection with the existing Seattle Aquarium to facilitate movement of visitors, volunteers, and staff, and to support Aquarium programming.

### **Summary of Impacts and Mitigation**

Table ES-2 provides a summary of construction, long-term, and cumulative benefits and impacts for the three alternatives. These impacts are described in more detail following the table.

**Table ES-2**  
**Summary of Construction, Long-Term, and Cumulative Benefits and Impacts for Alternatives**

Element of the Environment	Type of Impact	Alternative 1: No Action	Alternative 2	Alternative 3	Comparison of Alternatives
Transportation and Parking	Construction	No Adverse Impact	Minor to Moderate Impact	Minor to Moderate Impact	No substantive difference
	Long-Term	No Adverse Impact <sup>1</sup>	Minor Impact	Minor Impact	No substantive difference
	Cumulative	No Adverse Impact	Minor Impact <sup>2</sup>	Minor Impact <sup>2</sup>	No substantive difference
Land Use	Construction	No Adverse Impact	Minor Impact	Minor Impact	No substantive difference
	Long-Term	No Adverse Impact <sup>1</sup>	Minor Benefit	Minor Benefit	As compared to Alternative 2, Alternative 3 would: <ul style="list-style-type: none"> <li>• Further the goals of applicable land use plans and policies (such as increased multimodal connectivity, open space, and recreation) to a greater degree</li> <li>• Provide unobstructed public views (versus partially obstructed) of Elliott Bay over Pier 59, preserving views of the water consistent with policies and goals of the City's Comprehensive Plan</li> <li>• Provide improved access to Pike Place Market from the waterfront to a greater degree, because pedestrian access would have a more level connection with the Overlook Walk and a more visible elevator connection</li> <li>• Include more landscaping on the Ocean Pavilion roof</li> </ul>
	Cumulative	No Adverse Impact	Minor Impact <sup>2</sup> / Minor Benefit	Minor Impact <sup>2</sup> / Minor Benefit	No substantive difference
Aesthetics and Scenic Resources	Construction	No Adverse Impact	Moderate Impact	Moderate Impact	No substantive difference
	Long-Term	Moderate Benefit <sup>3</sup>	Minor Impact	Minor Impact	<ul style="list-style-type: none"> <li>• SEPA-protected views of the downtown skyline to the north from Waterfront Park's adjacent sidewalk may be affected for both action alternatives, but SEPA-protected views of Puget Sound from Victor Steinbrueck Park may not be affected.</li> <li>• As compared to Alternative 3, Alternative 2 would obstruct slightly less of the view of the water and background landforms from viewpoints looking west. Alternative 3 may provide unobstructed public views of Elliott Bay from the rooftop and better visual integration within the Overlook Walk.</li> </ul>
	Cumulative	No Adverse Impact	Minor Impact	Minor Impact	No substantive difference

Element of the Environment	Type of Impact	Alternative 1: No Action	Alternative 2	Alternative 3	Comparison of Alternatives
<b>Historic and Archaeological Resources</b>	<b>Construction</b>	No Adverse Impact	Minor to Moderate Impact	Minor to Moderate Impact	As compared to Alternative 2, Alternative 3 has slightly less potential for disturbance due to the reduced horizontal footprint of the basement and reduced potential disturbance of archaeological resources during construction.
	<b>Long-Term</b>	No Adverse Impact <sup>1</sup>	No Adverse Impact	No Adverse Impact	No substantive difference
	<b>Cumulative</b>	No Adverse Impact	Minor to Moderate Impact <sup>2</sup>	Minor to Moderate Impact <sup>2</sup>	No substantive difference
<b>Water Quality</b>	<b>Construction</b>	No Adverse Impact	Minor Impact	Minor Impact	No substantive difference
	<b>Long-Term</b>	No Adverse Impact	No Adverse Impact	No Adverse Impact	No substantive difference
	<b>Cumulative</b>	No Adverse Impact	Minor Impact <sup>2</sup>	Minor Impact <sup>2</sup>	No substantive difference
<b>Fish and Aquatic Resources</b>	<b>Construction</b>	No Adverse Impact	Minor Impact	Minor Impact	No substantive difference
	<b>Long-Term</b>	No Adverse Impact	No Adverse Impact	No Adverse Impact	No substantive difference
	<b>Cumulative</b>	No Adverse Impact	Minor Impact <sup>2</sup>	Minor Impact <sup>2</sup>	No substantive difference

## Notes:

1. No additional adverse impacts beyond what was previously analyzed in the AWPOW EIS
2. Minor cumulative effects would be temporary during construction, due to ongoing construction projects occurring in the area. With the implementation of best management practices during Alternative 2 or 3 construction, these effects are anticipated to be minor.
3. Alternative 1 would maintain public open space and access consistent with the goals of applicable land use plans and policies, as analyzed in the AWPOW EIS.

## *Transportation and Parking*

### **Construction**

Under Alternative 1: No Action Alternative, the Ocean Pavilion would not be constructed and no construction activities would occur. Therefore, no adverse impacts on transportation and parking related to construction from Alternative 1 are anticipated. Construction of the Ocean Pavilion under either action alternative is anticipated to have minor to moderate impacts related to truck trips, construction employee trips and parking, and short-term lane or sidewalk closures during some construction activities. Because estimates are preliminary, impacts are conservatively high. Construction activities associated with the Animal Care Center would generate a small number of trucks that would be spread out and would not have a noticeable effect on traffic operations. Construction-generated parking needs for the Animal Care Center would be accommodated on site and would not result in adverse impacts.

For the action alternatives, the contractor would be required to develop and implement a Construction Management Plan to avoid and minimize impacts.

### **Long Term**

Alternative 1 would have no additional transportation or parking impacts beyond what was previously analyzed in the AWPOW EIS. For the action alternatives, minor impacts on transportation or parking are anticipated from operation of the Ocean Pavilion and off-site Animal Care Center. The additional vehicle trips generated by additional visitors to the Ocean Pavilion are projected to add a small amount of average delay to some intersections, but are not expected to change their overall level of service.

New visitors and employees would generate additional parking demand. Parked vehicles generated by Aquarium visitors would be spread throughout the day and would not all be parked at the same time. With the additional parking demand generated by either of the action alternatives, the Pike Place Market Garage is expected to have more than 300 spaces available throughout the weekday to accommodate demand generated by increased visitors and employees. It is expected that additional visitors to the Ocean Pavilion would also generate parking demand at other private and public lots and garages throughout downtown (as visitors often include a visit to the Aquarium with visits to other downtown attractions), but there is ample capacity to accommodate the expected increases. Additional pedestrians, bicyclists, and transit riders would be accommodated by improvements planned by the AWPOW to support those modes of travel. The action alternatives would be designed in accordance with the City's standards for bus loading and truck deliveries; no adverse impacts related to loading are anticipated from the Ocean Pavilion.

No significant long-term transportation or parking impacts are anticipated to result from Alternatives 1, 2, or 3; therefore, no mitigation is proposed.

## *Land Use*

### **Construction**

Under Alternative 1: No Action Alternative, the Ocean Pavilion would not be constructed and no construction activities would occur. Therefore, no adverse impacts on land use related to construction from Alternative 1

are anticipated. For construction of the Ocean Pavilion building, the action alternatives would have minor impacts due to effects associated with noise, dust, congestion, loss of parking, and access. The Animal Care Center would have no adverse impacts on land use given the minimal construction activity and industrial setting.

Mitigation measures for construction impacts would include maintaining access to businesses and recreational facilities, communicating with residents, businesses, and stakeholders, and applying measures developed for other environmental topics, such as controlling noise, light and glare, and dust.

### **Long Term**

No long-term adverse impacts on land use are anticipated from any of the alternatives. Alternative 1 would maintain public open space and access consistent with the goals of applicable land use plans and policies as analyzed in the AWPOW EIS. The action alternatives are anticipated to provide minor long-term benefits because the Ocean Pavilion would increase educational opportunities, multimodal connectivity, and open space and recreation, and support anticipated land uses in the area. Alternative 3 would have slightly more benefit because it preserves unobstructed public views of Elliott Bay (versus partially obstructed in Alternative 2) and would also provide improved access to the Pike Place Market from the waterfront to a greater degree than Alternative 2 because pedestrian access would have a more level connection with the Overlook Walk and a more visible elevator connection.

Under both action alternatives, public right-of-way would be reduced because the Ocean Pavilion would occupy a greater extent of the Aquarium Plaza space. However, both action alternatives would provide additional public open space on the roof of the Ocean Pavilion, which is a partially dedicated right-of-way. Therefore, no land use or access restrictions related to public space are identified with the action alternatives.

The operation of the Animal Care Center would continue industrial uses of Harbor Island and is consistent with land use plans and policies and would not convert or restrict land use.

No significant long-term land use impacts are anticipated to result from Alternatives 1, 2, or 3; therefore, no mitigation is proposed.

## *Aesthetics and Scenic Resources*

### **Construction**

Under Alternative 1: No Action Alternative, the Ocean Pavilion would not be constructed and no construction activities would occur. Therefore, no adverse impacts on aesthetics and scenic resources related to construction from Alternative 1 are anticipated.

For the action alternatives, moderate construction-related impacts are anticipated from construction equipment, temporary facilities and staging, soil/dust/exhaust, temporary lighting, and traffic pattern changes. Additionally, SEPA-protected views of portions of the city skyline and Puget Sound from Waterfront Park's adjacent sidewalk and Victor Steinbrueck Park may be affected by the construction of the building and construction equipment (e.g., crane) depending on the height and location of equipment.

Because changes to the Animal Care Center are all interior to an existing building, no visual impacts are anticipated to occur during construction.

Mitigation measures to avoid or minimize construction-related impacts for the action alternatives could include the following:

- Protecting visual resources through the development of a Construction Screening Plan, which could include integrating temporary public artwork murals and select windows into construction areas to provide an attractive screen and opportunities for interested parties to observe construction progress
- Limiting nighttime construction activities and thus lighting, and considering light barriers or directing lighting away from residential buildings that could be disturbed by glare

### Long Term

No long-term impacts are anticipated from Alternative 1: No Action Alternative beyond those analyzed in the AWPOW EIS, although moderate benefits to the general public are anticipated from increasing the visual quality of existing important views of the water, sky, and background landforms.

SEPA-protected views of the downtown skyline (to the north) from Waterfront Park's adjacent sidewalk may be affected for both action alternatives, but SEPA-protected views of Puget Sound from Victor Steinbrueck Park may not be affected. Minor long-term impacts from the two action alternatives are anticipated from slight impacts on visual quality, which would be most pronounced from viewpoints looking south or looking east, due to the Ocean Pavilion building projecting out from the Overlook Walk. The potential difference in height of the Ocean Pavilion in the action alternatives could result in impacts to public views of the water and background landforms from viewpoints looking west; though again, no SEPA-protected views of Puget Sound from Victor Steinbrueck Park would be affected. For Alternative 3, the building would have better visual integration with the Overlook Walk to a much greater degree compared to Alternative 2.

Alternative 3's building height would allow for enhanced public views from the roof by elevating the viewpoint above Pier 59, allowing unobstructed public views of the water. Alternative 3 also has a more level connection with the Overlook Walk as well as connections to Pike Place Market that increases legibility and wayfinding at this location. With the building located farther south, there would be closer proximity and more direct connection to the existing Seattle Aquarium, contributing to project coherence.

Because changes to the Animal Care Center would be to the interior of an existing building, no visual impacts are anticipated during construction or in the long term.

No significant adverse impacts on aesthetic and scenic resources are anticipated from SEPA-designated viewpoints; however, limited views of the downtown skyline from Waterfront Park's adjacent sidewalk may be partially blocked and thus impacted by the proposed building for both action alternatives. No mitigation measures are proposed. However, as the preferred design for the Ocean Pavilion is selected and undergoes review through the Design Commission process, design refinements to minimize potential impacts would be incorporated.

## *Historic and Archaeological Resources*

### **Construction**

Under Alternative 1: No Action Alternative, the Ocean Pavilion would not be constructed and no construction activities would occur. Therefore, no adverse impacts on historic and archaeological resources related to construction from Alternative 1 are anticipated. For the action alternatives, minor impacts on historic buildings during construction of the Ocean Pavilion are anticipated due to impacts associated with construction noise, dust, and/or access limitations. Potential moderate impacts on unrecorded archaeological sites may occur, associated with excavation in sediment with archaeological potential between 22 to 40 feet below ground surface (bgs). Alternative 2 has slightly more potential to affect archaeological materials than Alternative 3, because the horizontal footprint of the basement is larger (26,100 square feet [0.6 acre] for Alternative 2 versus 17,400 square feet [0.4 acre] for Alternative 3). The build out of the Animal Care Center would not result in any modifications to the exterior of the building, and therefore has no potential to affect the potential historic integrity of the building. No ground disturbance is proposed, so there is no potential to affect archaeological materials.

Mitigation measures to address potential impacts on archaeological materials between 22 to 40 feet bgs during the installation of drilled shafts for piles could include preparation of an Archaeological Monitoring Plan to provide monitoring of any sediments that are safely visible and accessible, if any. An Inadvertent Discovery Plan would be prepared and maintained on-site during construction.

### **Long Term**

No long-term impacts are anticipated from Alternative 1: No Action Alternative beyond those analyzed in the AWPOW EIS. The Ocean Pavilion would not operate in, or affect the use of, any historic buildings. The operation of the Animal Care Center would not include any activities that would alter or diminish the Fisher Flour Mill building. No long-term impacts on archaeological sites, historic buildings, or traditional cultural properties are anticipated under any of the alternatives; therefore, no mitigation measures are proposed.

## *Water Quality*

### **Construction**

Under Alternative 1: No Action Alternative, the Ocean Pavilion would not be constructed and no construction activities would occur. Therefore, no adverse impacts on water quality from Alternative 1 are anticipated. The action alternatives would have similar water quality impacts, including minor impacts on water quality during construction. Construction activities with the potential to affect water quality in Elliott Bay include nearby staging of construction materials, ground-disturbing activities with the potential to release dust or affected groundwater if improperly dewatered, overwater work, and potential leaks or spills from construction equipment. The duration of excavation and associated stockpile areas for Alternative 2 may be greater than Alternative 3. It is anticipated that any stormwater runoff from upland construction activities would be contained by the AWPOW projects' drainage system and treated prior to discharge to Elliott Bay. No in-water work is currently proposed and would be avoided or minimized to the extent practicable. No new or modified outfalls are proposed as part of the action alternatives.

With implementation of best management practices (BMPs), construction-related impacts associated with the action alternatives are anticipated to be minor. Therefore, no mitigation measures are proposed.

### **Long Term**

Under Alternative 1, the area would be maintained as an open plaza covered with a non-pollutant generating impervious surface, or similar a surface, to accommodate pedestrian traffic. Stormwater would be managed by the AWPOW projects' drainage system and treated prior to discharge to Elliott Bay. Therefore, no long-term impacts on water quality from Alternative 1 are anticipated.

During operation of the Ocean Pavilion, there would be a minor increase (less than 10%) in saltwater intake and discharges from the current Seattle Aquarium operations to Elliott Bay at Piers 59 and 60. Water that encounters non-native invertebrates and any other water used for maintenance would continue to be discharged to the sanitary sewer and publicly owned treatment works (POTW). SEAS will continue consulting with the Washington State Department of Ecology, King County Wastewater Treatment Division, and Seattle Public Utilities to determine the appropriate level of engineering controls required to pre-treat and/or sterilize Ocean Pavilion discharges to the sanitary sewer and POTW. No long-term impacts on water quality are anticipated from the action alternatives, and no mitigation is proposed.

## *Fish and Aquatic Resources*

### **Construction**

Under Alternative 1: No Action Alternative, the Ocean Pavilion would not be constructed and no construction activities would occur. Therefore, no adverse impacts on fish and aquatic resources related to construction from Alternative 1 are anticipated. The action alternatives would have similar impacts on fish and aquatic resources, including minor impacts during construction such as barging, staging, stockpiling, ground-disturbing activities, overwater work, and potential leaks or spills from equipment. It is expected that any stormwater runoff from upland construction activities would be contained by the AWPOW projects' drainage system and treated prior to discharge to Elliott Bay. No in-water work is currently proposed and would be avoided or minimized to the extent practicable. With implementation of BMPs, construction-related impacts associated with the action alternatives are anticipated to be minor. Therefore, no mitigation measures are proposed.

### **Long Term**

No long-term impacts to fish and aquatic resources from Alternative 1 are anticipated beyond what was previously analyzed in the AWPOW EIS. Potential long-term impacts from operation of the Ocean Pavilion are anticipated to be commensurate for the action alternatives. Under the action alternatives, the minor increase in saltwater intake and discharges to Elliott Bay at Piers 59 and 60 would occur (as described in Section 2.6). No long-term impacts on fish and aquatic resources from the minor increase in intake and discharges for the Ocean Pavilion are anticipated from the action alternatives, and no mitigation is proposed.

### **Next Steps**

The Final EIS is expected to be published in the fourth quarter of 2018. In 2019, the Seattle City Council will meet to consider issuing a Development Agreement for the Ocean Pavilion.



## 1 Introduction

This Washington State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) has been prepared to evaluate a range of alternatives for the proposed Seattle Aquarium Ocean Pavilion (Ocean Pavilion). The proposed Ocean Pavilion would be located along Seattle’s central waterfront, just east of the existing Seattle Aquarium facilities on Piers 59 and 60 managed and operated by the Seattle Aquarium Society (SEAS; Figure 1-1). The Seattle Aquarium—funded by King County Forward Thrust funds in 1968—opened its doors in 1977 and has been serving its mission of *Inspiring Conservation of our Marine Environment* through exhibits, education, outreach, and research ever since. SEAS, in coordination with the City of Seattle Department of Parks and Recreation (Seattle Parks and Recreation), is proposing the Ocean Pavilion to further that mission, accommodate an expected increase in future attendance, provide a continuous connection with the existing Seattle Aquarium and support programming, and offer opportunities for public open space and enjoyment of the shoreline.

The proposed action also includes an off-site Animal Care Center, which may be located on Harbor Island at the former Fisher Flour Mill or a similar facility, to address both short- and long-term animal care veterinary and rehabilitation needs, and to meet the Association of Zoos and Aquariums’ standards. The Animal Care Center would support the objectives of the proposed action by providing necessary animal care for ongoing and future Aquarium exhibits and programs.

This introductory section provides information on the location of the proposed action, background on the previous planning efforts to expand and modernize the Seattle Aquarium, the relationship of the proposed Ocean Pavilion to other waterfront projects, an explanation of the environmental review process for the proposed action, and a summary of community, agency, and tribal engagement conducted to date.



**Figure 1-1**  
**Vicinity Map**

## 1.1 Background

The Seattle Aquarium opened on May 20, 1977, and was initially owned and operated by Seattle Parks and Recreation. The Seattle Aquarium has undergone several planning efforts to modernize its facilities, beginning in 1994. The timeline on the following pages illustrates some of the history of the planning processes and design concepts that have been considered for new and renovated Aquarium facilities. These planning efforts have included coordination with many parties to accommodate ongoing transformations along the Seattle waterfront.

As shown in the timeline on the following page, SEAS assumed management and operations of the Aquarium in 2010 under an agreement with Seattle Parks and Recreation. Since then, Seattle Parks and Recreation has continued to provide design support and funding to SEAS for expansion of the Seattle Aquarium through subsequent agreements, including the east end renovation of the shell and core of Pier 59 in 2007 and the replacement of piling and decking on the finger pier of Pier 60 in 2014.

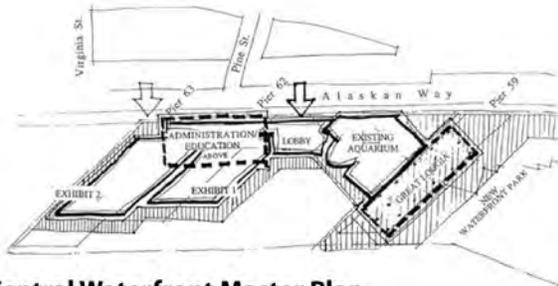
In 2013, a Memorandum of Understanding between the City of Seattle (City) and SEAS identified four main options being considered for expansion of the Seattle Aquarium: Pier 59 west end renovation; Pier 60 renovation and new elements; a new building on the Aquarium Plaza and partially underneath the Overlook Walk; and a new south wing (south of Pier 59). The subsequent 2014-2015 master planning process for the Seattle Aquarium included options for renovating the Pier 60 superstructure to construct an expanded exhibit space and improve circulation with Pier 59 (SEAS 2015). The master plan also included options for a new upland pavilion concept across from the existing Seattle Aquarium facilities, situated at the future Overlook Walk to the north of the proposed Aquarium Plaza.

## 1.2 Relationship to Other Waterfront Projects

Several important infrastructure projects are underway along the Seattle waterfront, led by the Washington State Department of Transportation (WSDOT) and the City. WSDOT, in coordination with the City and Federal Highway Administration, is demolishing the existing Alaskan Way Viaduct and replacing it with a new underground State Route (SR) 99 bored tunnel as part of the Alaskan Way Viaduct Replacement Program (AWVRP). With the removal of the viaduct, designs for the open space created along the Seattle waterfront have been developed through the Alaskan Way, Promenade, and Overlook Walk (AWPOW) projects, which are part of the Waterfront Seattle program led by the City's Office of the Waterfront and Civic Projects. Waterfront Seattle is a multi-year, multi-project program featuring projects such as the Pike Place MarketFront, Elliott Bay Seawall Project (EBSP), Piers 62/63 Rebuild, AWPOW projects, Pike Pine Renaissance: Act One, and the Waterfront Park Rebuild. Other waterfront projects include Washington State Ferries' (WSF's) Seattle Multimodal Terminal at Colman Dock Project, which is under construction and expected to be completed by 2023. Seattle Public Utilities (SPU) is also planning the Vine Basin Combined Sewer Overflow (CSO) Control Project, to be completed by 2025.

The Ocean Pavilion is being proposed as a separate and independent project from Waterfront Seattle and other ongoing projects. However, the proposed action is intended to anchor these projects and reconnect the city with Puget Sound and its central waterfront. Locations of other waterfront projects near the proposed Ocean Pavilion are shown in Figure 1-2.

Since opening in 1977, the Seattle Aquarium has participated in several planning efforts to improve and expand marine experiences and conservation education, while considering ongoing transformations along the waterfront.



### Central Waterfront Master Plan

As the first major effort for expansion of the Seattle Aquarium, the 1994 Master Plan included options to integrate Waterfront Park with the Seattle Aquarium and expand the Seattle Aquarium overwater, with a connection to Pier 62/63. The Seattle City Council approved the plan in 1997 for further planning and development.

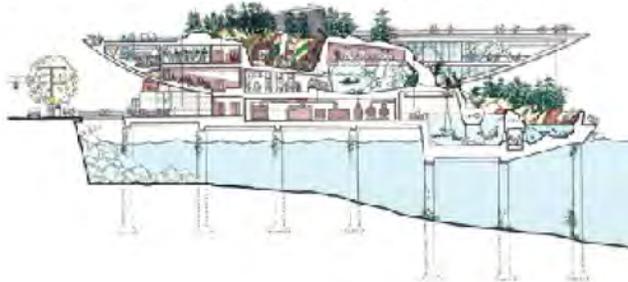
### Central Waterfront Parks Master Plan

Seattle Parks and Recreation issued a Draft EIS in 2006 for the Central Waterfront Master Parks Plan that evaluated a No Action Alternative and four build alternatives. The alternatives for expansion in the Draft EIS looked similar to the 2001 design concept, showing modifications with modern wings on both the north and south sides of Pier 59. These design alternatives were not carried forward to a Final EIS.



### Pier 62/63 Expansion Design Concepts

A new Seattle Aquarium building was proposed in 2000 on Pier 62/63—the design included creating an open basin and multistory facility. Community concerns over impacts to water views led to a revised plan focused on Pier 59 modifications with wings on the north and south sides of the pier. Neither design was carried forward as the City's finances focused on the Nisqually earthquake response.



### Pier 59 Improvements

Substantial maintenance and improvements were completed at the Seattle Aquarium on Pier 59 in 2007. Nearly 800 derelict piles were replaced and 18,000 square feet of new space was added to the facility that included a new entrance, flexible entry hall and gathering space, and the 120,000-gallon Window on Washington Waters exhibit.



### Seattle Aquarium Timeline

## Aquarium Operations

On July 1, 2010, the nonprofit Seattle Aquarium Society (SEAS) assumed management of the Seattle Aquarium under an operations and maintenance agreement with the City of Seattle, which identified a master plan process to guide future improvements, long-range capital projects, and potential future expansion.

### Strategic Plan

SEAS published the Seattle Aquarium Strategic Plan 2011-2030, providing goals and strategies for targeted growth over the next 20 years. The plan's facilities outlook included expanding beyond Piers 59 and 60 to provide for new programming and visitor capacity, consistent with the City's Central Waterfront design.



### Expansion Master Plan

Following extensive stakeholder outreach and planning sessions, SEAS published A Master Plan for Expansion in 2015, including design concepts for renovating Pier 59, renovating and expanding Pier 60, creating a major new exhibit building, and connections to an improved public waterfront. The plan was designed to align with the City of Seattle's future Overlook Walk and proposed pedestrian improvements.



### Renovated Harbor Seal Exhibit Opens

Seattle Aquarium opened the renovated harbor seal exhibit in 2013, the first step in the 20-year strategic plan.

### Pier 60 Improvements

On the finger pier of Pier 60, the Seattle Aquarium replaced approximately 100 creosote-treated timber pilings with 35 steel piles and timber decking with concrete decking in 2014.

### Concept Design Planning

SEAS began early visual concepts of expansion locations to the north and south of Pier 59 in 2012. The upland expansion and integration of the Seattle Aquarium into the City's proposed Overlook Walk was incorporated into the Waterfront Seattle Framework Plan for the Central Waterfront Committee.



### Office of the Waterfront Ordinance

In 2017, the City of Seattle Office of the Waterfront passed an ordinance (which was an amendment to the 2013 Memorandum of Understanding) to continue a cost-share agreement through the completion of the Aquarium Expansion Project, known as the "Ocean Pavilion," as a key element of the Waterfront Seattle vision, confirming the close coordination between Waterfront Seattle projects and the separate and independent Seattle Aquarium expansion efforts.



- 1 Alaskan Way, Promenade, and Overlook Walk Projects
- 2 Alaskan Way Viaduct Replacement Program
- 3 Elliott Bay Seawall Project: Central Seawall
- 4 Elliott Bay Seawall Project: North Seawall
- 5 Pier 62/63 Rebuild
- 6 Pike Pine Renaissance: Act One
- 7 Waterfront Park Rebuild
- 8 Seattle Multimodal Terminal at Colman Dock Project
- 9 Vine Basin Combined Sewer Overflow Control Project



**Figure 1-2**  
**Map of Other Waterfront Projects near the Ocean Pavilion**

## 1.3 Environmental Review Process

As the SEPA lead agency, Seattle Parks and Recreation had initially determined during scoping that this proposed action would likely have a significant adverse impact on the environment. Therefore, this EIS has been prepared to meet the SEPA procedural requirements outlined in Revised Code of Washington (RCW) Chapter 43.21C and Seattle Municipal Code (SMC) Chapter 25.05. SEPA requires lead agencies to evaluate how the proposed action would be implemented, along with the potential impacts and mitigation that could result from the implementation of the action alternatives and the No Action Alternative, prior to making a project decision. Existing environmental documents are incorporated by reference, to the extent practicable, to support the evaluation of proposed actions, alternatives, or environmental impacts, consistent with SMC 25.05.600 and Washington Administrative Code (WAC) 197-11-635. The construction of an “Aquarium Pavilion” was reviewed by the City as part of the AWPOW SEPA EIS (SDOT 2016a, 2016b). Information and analysis from the AWPOW EIS is incorporated by reference into the analysis and findings of this Draft EIS, in accordance with the previously referenced regulations.

In accordance with SEPA, a scoping period was conducted in May 2018 to provide input on the content and scope of this EIS. Information related to the scoping process is described in Section 1.4.

Based on a technical evaluation of the alternatives that occurred after scoping, the Draft EIS indicates that no significant adverse impacts are anticipated to occur from the proposed action. According to SMC 25.05.440(E) and WAC 197-11-440(6)(a), elements of the environment that are not significantly affected do not need to be evaluated. However, Seattle Parks and Recreation and SEAS believe that it is important to provide this information to decisionmakers and the public.

### 1.3.1 Objectives

The following objectives of the Ocean Pavilion will be used as the basis for evaluating the alternatives:

- Accommodate a 40% expected increase in future attendance and visitors, which requires an approximately 48,000-square-foot building and pedestrian and Americans with Disabilities Act (ADA) pathways
- Provide a continuous connection with the existing Seattle Aquarium to facilitate movement of visitors, volunteers, and staff, and to support Aquarium programming
- Provide opportunities for public open space and enjoyment of the shoreline
- Create a space that supports the Aquarium’s mission of *Inspiring Conservation of Our Marine Environment* and provides the public with a global ocean experience

## 1.4 Community, Agency, and Tribal Engagement

Seattle Parks and Recreation and SEAS issued a Determination of Significance and Scoping Notice for the Ocean Pavilion on May 7, 2018. As part of the scoping process, Seattle Parks and Recreation and SEAS invited comment from agencies, tribal governments, and members of the public during the scoping period (May 7 to May 28, 2018). During this time, interested parties were encouraged to provide input on the EIS scope relating to the objectives, range of alternatives, probable significant adverse impacts, and elements of the affected environment to be analyzed in this EIS. A public scoping meeting was held on May 24, 2018,

which included a presentation introducing the proposed action, informational poster boards, and comment forms and boxes. A court reporter was also available at the scoping meeting to receive and transcribe comments from participants.

Other activities and resources used to encourage public engagement included the following:

- Publishing the Determination of Significance and Scoping Notice in the *Daily Journal of Commerce* (DJC), City's Land Use Information Bulletin, and Washington State Department of Ecology (Ecology) SEPA Register
- Publishing a legal notice in the DJC
- Sending an email containing the scoping notice to agencies, tribes, and stakeholders
- Posting a public scoping meeting announcement on the SEAS project website (<https://www.seattleaquarium.org/planning>), including the time and location of the public scoping meeting and instructions on how to comment
- Conducting outreach to businesses, property owners, and other interested parties near the proposed action, including meetings with representatives and/or residents of the Fix Madore building and Waterfront Landings, the Suquamish Tribe, and the League of Women Voters

During the scoping period, SEAS received an email from the Seattle Fire Department stating they had no comments on the proposed action at that time; no other comments were received. Outreach, through meetings and emails, to businesses and residents near the proposed action is ongoing, to keep interested parties up to date on the status of the planning and design processes. Details on the information provided during the scoping period are further described in the Scoping Summary Report (see Appendix A).

## 1.5 EIS Scope and Organization

The rest of this EIS is organized into the following sections to meet the requirements of SEPA:

- **2 – Project Alternatives:** Describes the range of alternatives evaluated during the EIS process as well as alternatives that were considered but not carried forward
- **3 – Affected Environment, Impacts, and Mitigation Measures:** Describes the existing environment, analyzes potential impacts of the alternatives, and provides proposed avoidance, minimization, and mitigation measures
- **4 – Cumulative Effects:** Describes cumulative impacts of the proposed action relative to the No Action Alternative and identifies potential mitigation measures to reduce potential cumulative effects of the proposed action
- **5 – References:** Provides a list of references used to support preparation of this EIS
- **6 – List of Preparers:** Identifies individuals who participated in the preparation of this EIS



## 2 Project Alternatives

### 2.1 Development of Alternatives

In 2015, SEAS published a master plan showing design concepts that included renovating Pier 59, renovating and expanding Pier 60 over water, and introducing a Seattle Aquarium facility aligned with the future Overlook Walk—the City’s planned pedestrian bridge between the waterfront and Pike Place Market (SEAS 2015). The refined direction, consistent with SEAS’ objectives, is to focus on coordination with the Waterfront Seattle program. As an integrated yet separate component of the future Overlook Walk, the location for the Ocean Pavilion was chosen because it would provide the most benefit with the least environmental impacts.

The range of potential action alternatives for the Ocean Pavilion were refined during and after development of the 2015 master plan and are based on the results of scoping, resulting in the two action alternatives described in the following sections. A comparison of both action alternatives is included in Section 2.5.

### 2.2 Alternative 1: No Action Alternative

Under Alternative 1 (No Action Alternative), the Ocean Pavilion would not be built. However, conditions in the area would be different from those that exist at the time this EIS is published (2018). The analysis for the No Action Alternative is based on the expected conditions in 2030, which is the year used for the

assessment of future conditions. The following major changes are assumed to be in place under the No Action Alternative:

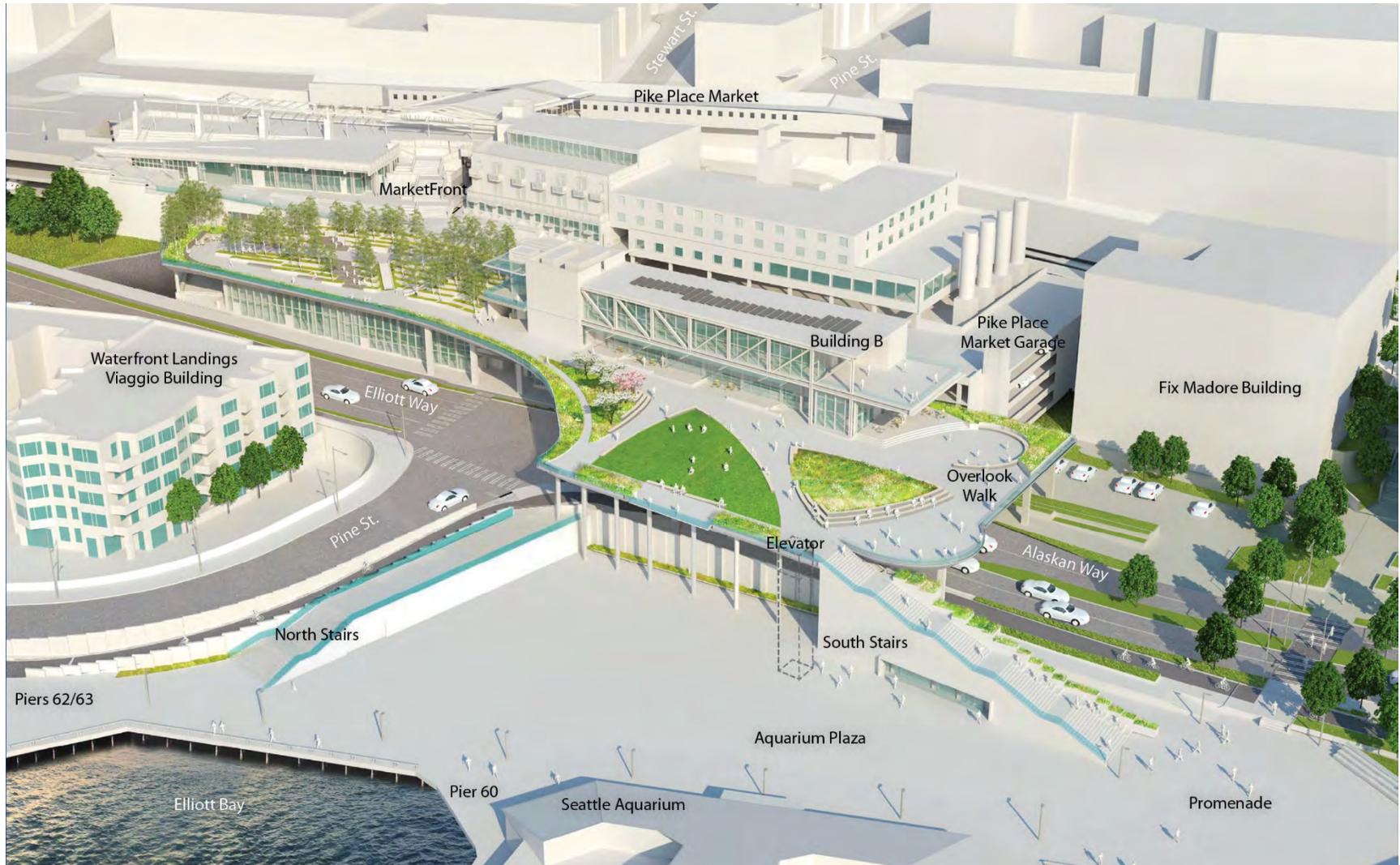
- The AWPOW projects identified in the preferred alternative within the AWPOW EIS would be completed. The AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects' design process.
- The AWVRP would be completed, with the viaduct eliminated and the SR 99 tunnel in operation.
- The EBSP would be completed.
- Ongoing public and private development projects that are currently being permitted through the Seattle Department of Construction and Inspections would be completed, with an additional projected baseline growth of 1% per year.

A description of the AWPOW's selected preferred alternative is included in Section 2.3 of the AWPOW EIS (SDOT 2016b). The main difference between the two proposals is that the No Action Alternative for the Ocean Pavilion does not include construction of the "Aquarium Pavilion," which was one option described as part of the AWPOW's preferred alternative. Descriptions of the AWVRP and EBSP are included in Section 2.2 of the AWPOW EIS (SDOT 2016b).

Figure 2-1 shows the No Action Alternative, which serves as the baseline against which the potential impacts of the action alternatives are evaluated.

### *2.2.1 Office of the Waterfront and Civic Projects' Potential Design Refinements*

As stated previously, the AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects' design process. As of the publication of this EIS, the conceptual design of the Overlook Walk lid (or bridge) connecting the waterfront to Pike Place Market over Elliott Way would be narrower (90 feet versus 190 feet) and higher (50 feet versus 40 feet) than the design in the AWPOW EIS. In addition, Building B would be replaced by a smaller one-story building with a covered outdoor café and seating area on its roof. Public stairs and elevators would maintain connections from the Overlook Walk to the waterfront. These refined conditions were used in assessing the range of impacts of the action alternatives as compared to No Action Alternative and potential design refinements.



**Figure 2-1**  
**Alternative 1 (No Action)**

Source: LMN Architects

## 2.3 Alternative 2

Alternative 2 (Figure 2-2) includes the Ocean Pavilion concept evaluated as one option for the preferred alternative under the AWPOW EIS (referred to as the “Aquarium Pavilion” in the EIS). The proposed building would include an approximately 48,000-square-foot public aquarium featuring exhibits and associated support space, which is expected to accommodate a 40% increase in attendance and visitors. The orientation of the proposed building would place it farther north and closer to Pine Street compared to Alternative 3, which would be located farther south. The building would be approximately 40 feet tall, or a height that would comply with applicable height restrictions, and would feature three floors, plus a subgrade basement floor, with public space and a view area on the roof that would be contiguous with and accessible from the future Overlook Walk. The height of the building would provide some views of Elliott Bay; however, these views would be partially obstructed by the existing Seattle Aquarium building on Pier 59.

Under Alternative 2, the interior of the building would include a flexible design for future exhibits and associated support space, including a large central tank as the main exhibit with multiple other exhibits throughout the building. Reservoirs for animal care, water storage, and transfer would also be installed within the building.

The entrance would be located at the south side of the building at the Aquarium Plaza. An ADA-accessible public elevator and stairs (accessible via the exterior of the building) is included in the design to provide access between the Aquarium Plaza’s ground level and rooftop, to the future Overlook Walk. The rooftop would be approximately 13,100 square feet (0.3 acre) and include limited landscaping. The basement floor would be larger than the footprint of the above-grade portion of the building (approximately 26,100 square feet [0.6 acre]) and would provide additional necessary space for animal life support, reservoirs, and building mechanical systems.

Service routes to the Ocean Pavilion would be primarily on the east side of the building, with an entrance from Alaskan Way that would allow service vehicles to access the Seattle Aquarium facilities. An off-site Animal Care Center would be included under the action alternatives, as described in Section 2.7.



**Figure 2-2**  
**Alternative 2**

Source: LMN Architects

## 2.4 Alternative 3

Alternative 3 (Figure 2-3) includes building the Ocean Pavilion east of the existing Aquarium on Alaskan Way and the future Waterfront Promenade. The proposed building would include an approximately 48,000-square-foot public aquarium featuring exhibits and associated support space, which is expected to accommodate a 40% increase in attendance and visitors. The building would be approximately 50 feet tall and would feature three floors plus a subgrade basement floor, with public space and a viewing area on the roof that is contiguous with and accessible from the future Overlook Walk. The height of the building would provide unobstructed public views of Elliott Bay over the existing Seattle Aquarium on Pier 59.

### Preferred Alternative Selection

Seattle Parks and Recreation and SEAS have selected Alternative 3 as the preferred alternative. The Ocean Pavilion design best meets the objectives with the least environmental impacts during construction and in the long term.

As compared to the other alternatives, Alternative 3 provides closer connections to the existing Seattle Aquarium facility, enhanced public access and views of the water, and better integration with the future Overlook Walk design refinements.

Under Alternative 3, the interior of the building would include a flexible design for future exhibits and associated support space, including an approximately 330,000-gallon tank as the main exhibit and multiple other exhibits throughout the building. Reservoirs for animal care, water storage, and transfer would also be installed within the building. A portion of the main exhibit would be integrated into the exterior of the Ocean Pavilion and viewable from the entrance on the south side of the building at the Aquarium Plaza.

The façade on the western-facing side of the Ocean Pavilion would replicate the design of the future Overlook Walk and accommodate public stairs, which would wrap around the façade from the rooftop to the ground level. An exterior, ADA-accessible public elevator and stairs would be included in the design to provide ground-level and rooftop access for visitors. The Ocean Pavilion entrance would be on the south side of the building. The east side of the building would face Alaskan Way and house the mechanical components and utilities. The rooftop would be approximately 17,400 square feet (0.4 acre), with public open space facing Elliott Bay and approximately 3,500 square feet of open space with landscaping. The basement floor would be similar in size to the above-grade footprint of the building (approximately 17,400 square feet [0.4 acre] in size) and would provide animal life support services, reservoirs, and building mechanical systems.

Service routes to the Ocean Pavilion would be primarily on the south side of the building, with an entrance near the intersection of Alaskan Way and Pine Street that would allow service vehicles to access the Seattle Aquarium facilities via the promenade and Aquarium Plaza. An off-site Animal Care Center would be included under the action alternatives, as described in Section 2.7.



**Figure 2-3**  
**Alternative 3**

Source: LMN Architects

## 2.5 Comparison of Action Alternatives

Table 2-1 provides a comparison of the action alternatives based on orientation, height, floors, dimensions, façade, rooftop public open space, and public circulation.

**Table 2-1  
Comparison of Design Features for Alternative 2 and Alternative 3**

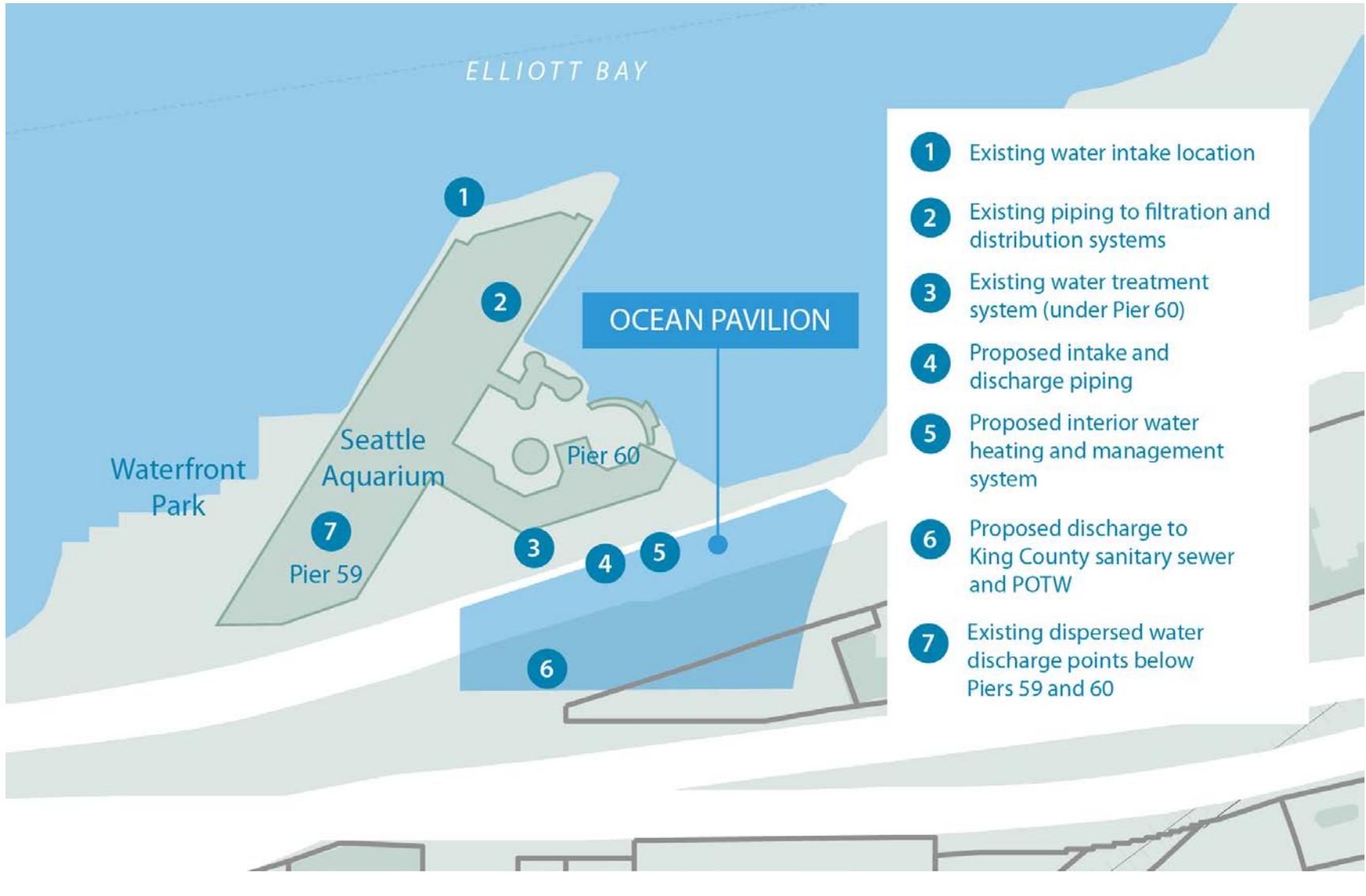
Feature(s)	Alternative 2	Alternative 3
<b>Orientation</b>	<ul style="list-style-type: none"> <li>The Ocean Pavilion would be located farther north toward Pine Street than Alternative 3, resulting in a greater distance from the entrance to the existing Seattle Aquarium entrance, thereby slightly reducing accessibility for visitors, volunteers, staff, and Aquarium programs compared to Alternative 3.</li> <li>The north and westward orientation of the Ocean Pavilion from the future Overlook Walk would constrict the public open space between the building and Pier 60, Piers 62/63, and the Elliott Bay shoreline.</li> </ul>	<ul style="list-style-type: none"> <li>The Ocean Pavilion would be located farther south from Pine Street than Alternative 2, resulting in a shorter distance from the entrance to the existing Seattle Aquarium entrance, thereby improving accessibility for visitors, volunteers, staff, and Aquarium programs compared to Alternative 2.</li> <li>The orientation of the Ocean Pavilion would provide additional public open space between the building and Pier 60, Piers 62/63, and the Elliott Bay shoreline, including space to provide a wider stairwell in the future Overlook Walk design.</li> </ul>
<b>Height</b>	The 40-foot building height would provide partially obstructed public views of Elliott Bay from the rooftop.	The 50-foot building height would provide unobstructed public views of Elliott Bay from the rooftop.
<b>Floors</b>	The Ocean Pavilion would have three aboveground floors and one basement floor.	Same as Alternative 2 with a smaller basement floor
<b>Dimensions</b>	48,000 gross square feet; approximately 165 feet long and 140 feet wide (at maximum, width varies); basement approximately 26,100 square feet (0.6 acre)	48,000 gross square feet; approximately 180 feet long and 106 feet wide (at maximum, width varies); basement approximately 17,400 square feet (0.4 acre)
<b>Façade</b>	Various façades, with reinforced concrete for the structural components of the building	Same as Alternative 2
<b>Rooftop Public Open Space</b>	<ul style="list-style-type: none"> <li>The rooftop public open space would be approximately 13,100 square feet (0.3 acre).</li> <li>The roof would include limited landscaping.</li> </ul>	<ul style="list-style-type: none"> <li>The rooftop public open space would be approximately 17,400 square feet (0.4 acre).</li> <li>The roof would include approximately 3,500 square feet of landscaped area.</li> </ul>
<b>Public Circulation</b>	<ul style="list-style-type: none"> <li>An interior public elevator and stairs (accessible from the exterior of the building) would be located on the exterior of the southwest corner of the Ocean Pavilion building.</li> <li>The public elevator and south stairs would provide a direct connection from the Aquarium Plaza and promenade to the Elliott Bay shoreline, while the north stairs would connect the Pike Place Market to Elliott Bay.</li> <li>Direct views to the water from the public stairs may be blocked by the Ocean Pavilion building.</li> </ul>	<ul style="list-style-type: none"> <li>A public elevator and stairs would be located on the exterior of the southeast corner of the Ocean Pavilion building. Additional interior elevator(s) would be provided for visitor access in the Ocean Pavilion (for ticketed guest use only).</li> <li>The exterior public elevator would be more visible than Alternative 2, and both the elevator and stairs would connect directly to the new public open space created by the Aquarium roof as well as the sidewalk on the west side of the new Alaskan Way, adjacent to the plaza and promenade, near the Elliott Bay shoreline.</li> <li>Direct views to the water from the exterior public elevator and stairs would be provided.</li> </ul>

## 2.6 Utilities and Water Management for Alternatives 2 and 3

The Seattle waterfront includes a major utility corridor with access to most utilities. The Ocean Pavilion would require connections to electricity, gas, internet, sewer, and water. Existing utility connections would be maintained to the extent practicable. Although not included in the AWPOW EIS, it is assumed that utilities and water management requirements would be similar for the action alternatives.

The Ocean Pavilion exhibits would connect to the existing Seattle Aquarium water intake, filtration, and discharge system. The existing intake pumping station is at the southwest corner of Pier 59 and includes an intake pump system that extracts saltwater from Elliott Bay at a rate of approximately 2,200 gallons per minute (gpm). The Ocean Pavilion would require an increase of approximately 200 gpm (approximately 10%) using the existing intake system, for a total of approximately 2,400 gpm. The saltwater is directed to filtration systems at Piers 59 and 60 that remove particulates and distribute the water to the Seattle Aquarium exhibits. Saltwater is circulated through the exhibits by a series of pipes and pumps. Fish exhibit and holding tank overflow water and filter backwash is discharged from various locations on Piers 59 and 60 back to Elliott Bay.

The connection from the existing water management system to the Ocean Pavilion would occur at dedicated utility pipe penetration areas at the face of the adjacent seawall under Pier 60. This feature was constructed between Piers 59 and 60 for the EBSP to allow new utility pipes to pass through the seawall for future upland connections. The connection between the existing filtration system and the Ocean Pavilion would be made by a belowground pipe that distributes filtered seawater to a heating system at the Ocean Pavilion. The heating system would heat the water to approximately 78°F to 80°F, or a similar temperature suitable for tropical animal exhibits. It is expected that the existing intake pumping station would be sufficient to feed saltwater to the Ocean Pavilion. Similar to the existing operations, saltwater would be routed back to Piers 59 and 60 through underground pipes, for discharge of approximately 200 gpm to Elliott Bay. To the extent practicable, heat exchange would be engineered into the incoming and outgoing Ocean Pavilion water piping system to reduce water temperature prior to discharge back into Elliott Bay. Similar to the existing facilities, water that encounters invertebrates, warm water exhibit filter return water, freshwater filter backwash, and other water used for maintenance would likely be discharged to the sanitary sewer and publicly owned treatment works (POTW). No new or modified outfalls are proposed as part of the action alternatives. Figure 2-4 shows a conceptual layout of the existing and proposed water management system.



**Figure 2-4**  
**Conceptual Layout of Existing and Proposed Water Management System**

## 2.7 Off-Site Animal Care Center for Alternatives 2 and 3

An off-site Animal Care Center is proposed to address both short- and long-term animal care, veterinary, and rehabilitation needs and to meet the Association of Zoos and Aquariums' standards. The most immediate need is to provide necessary animal care to support the opening of the Ocean Pavilion and the turtle rehabilitation program. The Animal Care Center would also be a long-term care facility that supports SEAS' exhibit animal population, animal rehabilitation, and research efforts.

The Animal Care Center would be designed to meet peak animal care demand for the Seattle Aquarium exhibits and programs. This would include approximately 15,000 square feet of interior space, plus an additional 5,000 to 7,000 square feet of area surrounding the facility for outdoor animal holding, water storage, and parking. The center is intended to meet the care needs of both warm- and cold-water fish, birds and mammals, and rehabilitating animals. The center would also provide long-term care, including life support systems, with flexibility in the design to accommodate future needs.

The Seattle Aquarium plans to have the Animal Care Center constructed and operational 2 to 3 years prior to the opening of the Ocean Pavilion. This would allow for coral propagation, animal quarantine, and acclimation of the animals for the exhibits. The Aquarium has identified a potential site at the former Fisher Flour Mill property on Harbor Island, which is owned by King County. While the Fisher Flour Mill site is a potential location for the center, a similar location could be pursued. It is not anticipated that the impacts identified in this analysis would differ at a similar location.

## 2.8 Construction Methods for Alternatives 2 and 3

Construction methods for the action alternatives are described in the following subsection. It is anticipated that construction methods would be similar for both action alternatives. During construction, access to existing utilities would be maintained for surrounding property uses.

### 2.8.1 Construction Activities

It is anticipated that construction at the Ocean Pavilion would require the following activities:

- Open excavation for the basement of the Ocean Pavilion, which would reach about 20 feet below ground surface (bgs), with 48-inch-diameter piles extending at varying depths
  - It should be noted that for Alternative 2, the AWPOW EIS shows 60 to 80 feet of excavation proposed in this area (SDOT 2016b: Figure 10-2, page 245). It is expected that this depth is specific to the future Overlook Walk and other improvements, and depths of that magnitude would not be required to construct the Ocean Pavilion.
- Dewatering of excavation areas below the water table or implementing soil freezing treatments to provide a dry work area as necessary
- Protecting, relocating, and/or connecting utilities
- Using best management practices (BMPs) to protect water quality and reduce erosion (may include installation of silt fencing, covering of stockpiled soil, and collection and treatment of construction stormwater runoff)
- Drilling shafts for piers to support the building, including exterior elevators or stairs as necessary

- Removing existing knock-outs in the adjacent seawall under Pier 60 to connect the overwater intake pipe, seawater discharge, and utilities and infrastructure between the Ocean Pavilion and existing Seattle Aquarium buildings
- Erecting structural components and installing mechanical and other building features, using a crane tower for hoisting
- Potentially using one barge for 3 to 8 weeks, located between Piers 62/63 and Pier 60, for delivery of acrylic windows for the exhibits

Construction at the Animal Care Center would be limited to the building interior. No substantial modifications or new construction would be required to the exterior or surrounding areas.

Table 2-2 includes a typical list of construction equipment and uses that could be employed during construction.

**Table 2-2  
Typical Construction Equipment and Uses**

Equipment	Typical Use
Backhoe	General construction
Concrete pump	Concrete placement
Concrete saw	Concrete removal and utility access
Crane	Materials handling, removal, and replacement
Excavator	General construction and materials handling
Forklift	Staging area work and materials hauling
Generator	General construction work
Haul truck	Materials delivery and fill and excavated material transport
Jackhammer	Pavement removal
Loader	General construction and materials handling
Pump	General construction use and excavation dewatering
Pneumatic tools	Miscellaneous construction work (e.g., air compressors)
Service truck	Equipment repair and maintenance
Tractor trailer truck	Material removal and delivery
Utility truck	General project work
Vibratory or impact drivers	Support pile installation

### 2.8.2 Construction Staging

It is anticipated that areas within or near the proposed action (e.g., Aquarium Plaza) would be used for staging construction and storing materials, equipment, and temporary construction trailers.

### 2.8.3 Construction Timing

Construction of the Ocean Pavilion is expected to take up to approximately 4 months for early foundation work and 24 months for general construction. Preparation of the off-site Animal Care Center is expected to take approximately 9 months and would occur in advance of construction of the Ocean Pavilion.

### 2.8.4 Worker Parking, Access, and Haul Routes

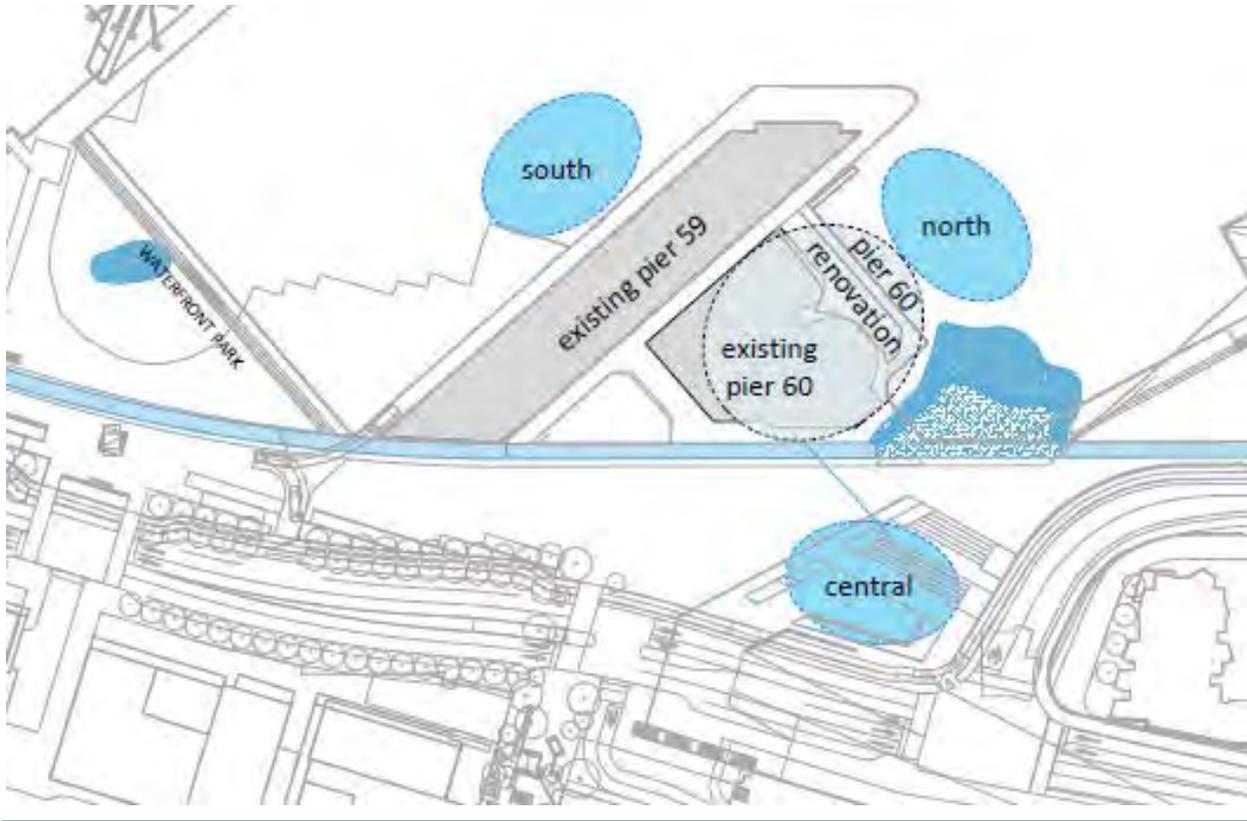
The Ocean Pavilion contractor is expected to establish a worksite office, which could be located in existing office space near the Seattle Aquarium or in a mobile facility in the established staging area or nearby. A limited number of construction workers may be able to park at the worksite office or on the work site; others could use off-street parking garages near the Aquarium, and some may use transit and walk to the work site. The Animal Care Center contractor is anticipated to establish a construction office in existing space within the building that would house the Animal Care Center. Very little parking demand is expected to be generated during build out of the Animal Care Center.

Construction activities would generate traffic for equipment and removing debris and soil. The contractor would determine the best construction methods, as permitted by the City and in conformance with the project construction plans.

## 2.9 Alternatives Considered but Not Carried Forward

As part of the 2015 Master Plan (see timeline in Section 1.2), expansion alternatives included two overwater options (north and south of the Seattle Aquarium facilities) and one upland location (see Figure 2-5). All of these alternatives were determined to offer sufficient site area to accommodate future growth. However, the overwater options were not carried forward due to the permitting challenges, cost and complexity of in-water construction, and potential impacts on the aquatic environment. Additionally, SEAS determined that an expansion at the south location could affect views of Elliott Bay and the Olympic Mountains from Waterfront Park. The overwater options were also determined to be inconsistent with the objective of providing increased opportunities for public open space.

SEAS also considered alternatives to expand the Seattle Aquarium facilities off site from the Seattle central waterfront location. It was determined that constructing an Ocean Pavilion, or similar building, at an off-site location would break up the campus and be inconsistent with the objective of providing a continuous connection with the existing Seattle Aquarium to facilitate movement of visitors, volunteers, and staff, and to support Aquarium programming.



**Figure 2-5**  
**South and North Alternatives at Piers 59 and 60**

Source: SEAS 2015

## 2.10 Elements of the Environment Determined to Have No Probable Adverse Impact

The following elements of the environment were considered, but it was determined during the public scoping period that no further evaluation was necessary as part of this EIS due to no probable adverse impacts:

- Air Quality
- Vegetation and Wildlife
- Energy Resources
- Public Services and Utilities
- Noise
- Hazardous Materials



### 3 Affected Environment, Impacts, and Mitigation Measures

The proposed action would be located on Seattle's central waterfront, a developed urban corridor that abuts the marine waters of Elliott Bay. This section describes the affected environment and the proposed action's potential construction and long-term impacts on elements of the built and natural environment. Avoidance, minimization, and compensatory mitigation measures are provided to demonstrate how the proposed action would address potential impacts on these elements of the environment. The following elements of the environment are evaluated in this Draft EIS :

- Transportation and Parking
- Land Use
- Aesthetics and Scenic Resources
- Historic and Archaeological (Cultural) Resources
- Water Quality
- Fish and Aquatic Resources

#### **Mitigation Considerations**

When considering mitigation, the first step is to avoid or minimize impacts through design or siting. The next step is to rectify the impact by repairing the affected environment. For impacts that cannot be avoided or minimized, compensatory mitigation is identified, which could include restoration or rehabilitation, preservation, or monitoring the impact and taking appropriate corrective measures.

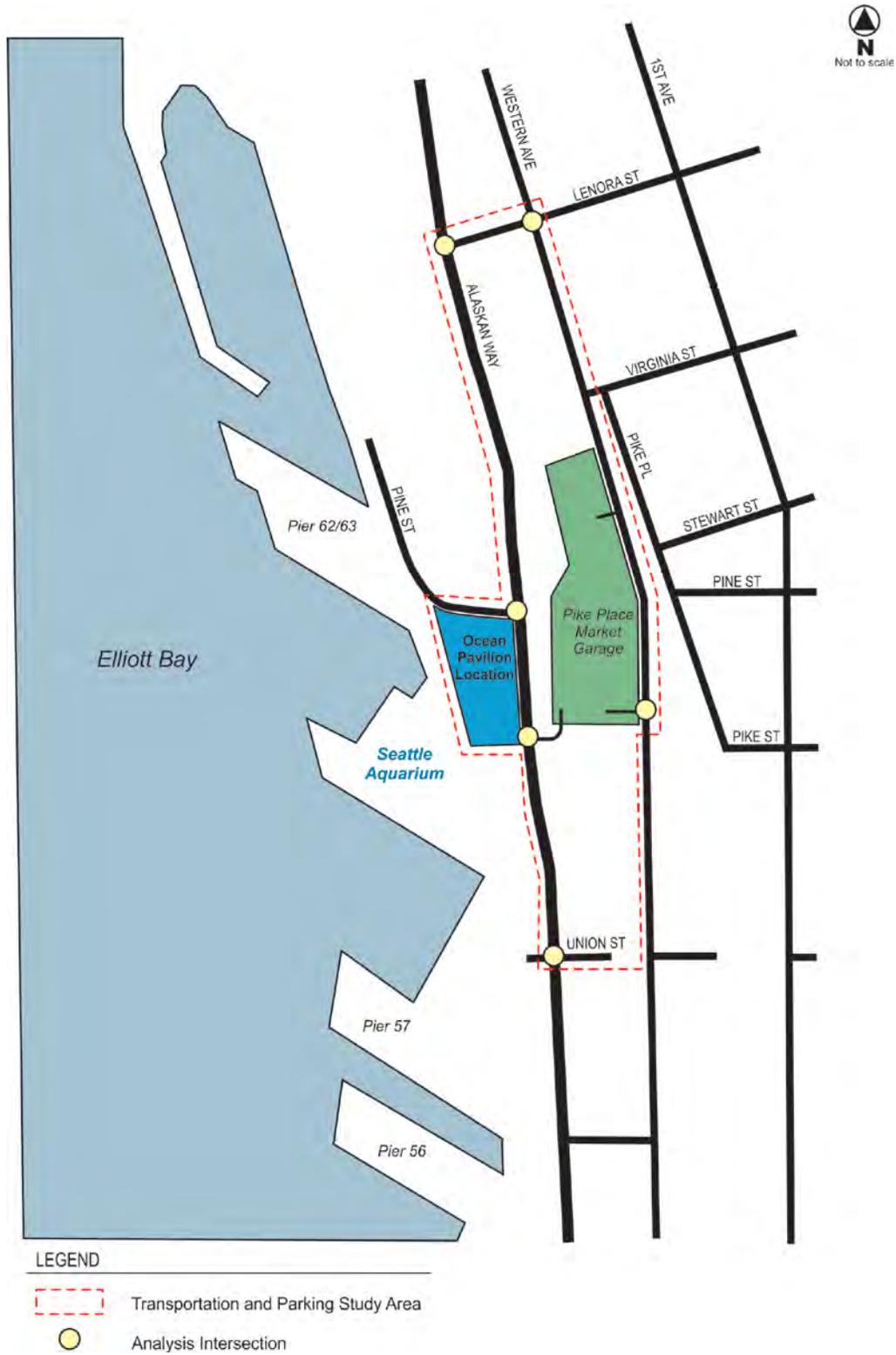
This analysis draws from information provided in the technical memoranda prepared for and appended to this Draft EIS, including Transportation and Parking (Appendix B); Land Use (Appendix C); Aesthetics and Scenic Resources (Appendix D); and, Cultural Resources (Appendix E).

## 3.1 Transportation and Parking

This section provides a summary of the findings within Appendix B. Existing transportation and parking facilities within the vicinity of the proposed Ocean Pavilion are expected to be modified by completion of the AWVRP and AWPOW projects, with construction anticipated to begin for these projects in late 2018 and mid-2019, respectively, as of the publication of this Draft EIS. Because the action alternatives are located within an area being modified by the AWPOW projects, this analysis incorporates by reference the AWPOW EIS documents (SDOT 2015a, 2016a, and 2016b) and AWPOW EIS *Appendix A: Transportation Discipline Report* as applicable (SDOT 2016c).

### 3.1.1 *Affected Environment*

The study area for the transportation and parking analysis includes the site access points (vehicular and non-motorized) and nearby off-site intersections in the area bounded by Alaskan Way to the west, Lenora Street to the north, Western Avenue to the east, and Union Street to the south. The Pike Place Market Garage, which is located across the street from the Aquarium, provides the nearest available public parking. This parking facility includes the original garage combined with the garage expansion that was completed in 2017 as part of the MarketFront project. The garages connect internally and share driveways on Western Avenue and Alaskan Way; together they have 820 spaces. The parking and transportation study area is shown in Figure 3-1.



**Figure 3-1**  
**Transportation and Parking Study Area with Completion of AWPOW Projects**

Source: Heffron Transportation, July 2018

### 3.1.1.1 Streets

The following key roadways are within the transportation study area (described as reconfigured following completion of the AWPOW projects; Figure 3-1):

- **Alaskan Way** is a Principal Arterial that is oriented roughly parallel to the waterfront between Broad Street to the north and Yesler Way to the south. It will have two vehicle lanes in each direction, sidewalks on both sides, and a two-way protected bicycle lane on the east side.
- **Western Avenue** is a Minor Arterial that is parallel to Alaskan Way, one block to the east. Between Lenora Street and Yesler Way, it has one travel lane in each direction with left-turn pockets at some intersections; on-street parking is allowed along much of its length. It has sidewalks on both sides and is marked with a combination of painted bicycle lanes where street width allows, and sharrows (pavement markings that indicate vehicles and bicyclists should share the travel lane) along the other portions. A new Elliott Way Connector will be constructed between Western Avenue at Bell Street and Alaskan Way at Pine Street.
- **Lenora Street** is a Minor Arterial that provides a connection between Western Avenue and Denny Way. It has a southwest-northeast orientation. Between First Avenue and Western Avenue, it has one travel lane in each direction, sidewalks on both sides, and angled parking on the south side. East of First Avenue, Lenora Street is a one-way in the southwest direction. Its intersection with Western Avenue is signalized. The Lenora Street pedestrian bridge connects from Elliott Avenue at the top of the bluff to the Pier 66 building, with elevators connecting to grade on the east and west sides of Alaskan Way. With the completion of the AWPOW projects, the pedestrian bridge will remain largely intact, with just the east end rebuilt to connect to the new segment of Elliott Way. There is an existing pedestrian signal across Alaskan Way at Lenora Street.
- **Pine Street** has a short segment within the study area designated as a local access street that provided access to some on-street parking across Alaskan Way from Piers 62/63 prior to the construction of the AWPOW projects. The segment of Pine Street near the Aquarium will provide direct local access to Piers 62/63 on the west side of Alaskan Way; its intersection with Alaskan Way will be signalized. The study area does not include the portion of Pine Street east of Pike Place Market.
- **Union Street** within the study area is also separated from the primary portion that connects downtown and Capitol Hill. There is a stairway for pedestrians that provides a connection from just west of First Avenue to Alaskan Way, but no through vehicular access is provided. The intersection of Union Street and Alaskan Way will be improved with a stair and elevator connection for pedestrian traffic, and it will continue to provide local access. Its intersection with Alaskan Way is signalized.

The transportation analysis reflects expected conditions in 2030, which is the year used for the assessment of future conditions, including the completion of the AWPOW projects. In addition to the transportation improvements described in Appendix B, the AWPOW projects will also signalize the intersection of the Pike Place Market Garage driveway at Alaskan Way, adjacent to the Seattle Aquarium.

### 3.1.1.2 Parking

The Seattle Aquarium does not have dedicated on-site parking. All parking is provided off site by surface parking lots and garages throughout downtown as well as on-street parking. Most of the existing on-street parking along Alaskan Way will be eliminated by the AWPOW projects.

As part of WSDOT's SR 99 Tunnel Project Parking Mitigation Program, off-street parking utilization of surface lots and garages along the waterfront and in Pioneer Square is monitored annually in late summer and during midweek days when commuter parking demand generated by downtown employees and visitors is the highest. The SR 99 Tunnel Project Parking Mitigation Program area extends approximately from Alaskan Way to First Avenue and from Wall Street to King Street. The WSDOT data indicate that parking occupancy (number of vehicles parked divided by the number of parking spaces) in the Pike Place Market Garage was 29% in the morning and 50% in the afternoon. Within the entirety of the SR 99 Tunnel Project Parking Mitigation Program area, parking occupancy was 58% in the morning and 71% in the afternoon. During the peak afternoon period when occupancy was highest, there were more than 500 unused parking spaces within 0.25 mile of the Seattle Aquarium, most in the adjacent Pike Place Market Garage.

More detailed analysis was completed specifically for the Pike Place Market Garage (see Appendix B). A full month of driveway entry and exit data were compiled for July 2017, and the last week in that month had the highest volumes. Saturday and Sunday had slightly higher occupancy than the peak weekday. This is expected at Pike Place Market, which attracts local and regional visitors on weekends. However, throughout the rest of downtown, the volume of weekend parking is much lower than on a weekday. Because the cumulative demand among downtown office and recreational parking is highest overall on weekdays, the peak weekday condition was evaluated for the Ocean Pavilion alternatives. During the peak three weekdays in July, the Pike Place Market Garage had an average occupancy of 440 vehicles, with a peak occurring midday. This is about half of the garage's capacity of 820 parking stalls. Even on the peak season weekday, more than 300 parking stalls were unused during the period of highest parking demand.

### 3.1.1.3 Transit

Downtown serves as the largest transit hub in Seattle, with bus transit, light rail, streetcar, commuter rail, ferries, and water taxis all servicing this area.

Bus transit service in Seattle is primarily provided by King County Metro (Metro) and Sound Transit. Snohomish County's Community Transit and Pierce County's Pierce Transit also provide limited bus service to and from Seattle, typically during the weekday commute periods. Metro has implemented ongoing plans to enhance transit service along high-demand corridors with RapidRide bus service, which provides frequent two-way bus service along high-demand routes, with amenities that include buses with low floors to facilitate faster passenger loading and unloading, ORCA card readers at stations that allow riders with cards to pay before they board, and electronic signs that provide arrival time information (King County Metro 2018). Metro is evaluating re-establishing transit along Alaskan Way to replace service on SR 99 that will be lost with the removal of the Alaskan Way Viaduct. There are several options being evaluated, including extending other routes to this corridor.

The Seattle Streetcar provides fixed-guideway service between Westlake and South Lake Union, and between Pioneer Square and Capitol Hill. The City's Center City Connector project plans to connect these two separate systems with a streetcar line along First Avenue and Stewart Street in downtown Seattle. Construction of the connector is being reviewed and could be resumed after the Alaskan Way Viaduct demolition is complete.

Sound Transit operates Link light rail service that serves downtown Seattle. The light rail connects the University of Washington and Angle Lake, with stops in the Capitol Hill, downtown, Central Seattle, and South Seattle neighborhoods as well as SeaTac Airport. Light rail service will be extended north to the University District, Roosevelt, and Northgate neighborhoods in 2021, and north to Lynnwood by 2024. East Link will extend light rail service to Overlake in 2023. Additional light rail lines have been approved as part of Sound Transit's ST3 program, with the largest element of that plan creating new lines to Ballard and West Seattle and a new transit tunnel through downtown Seattle scheduled to open in 2035. Sound Transit also operates the Sounder commuter rail service, which operates Monday through Friday during commute peak hours. In Seattle, the Sounder trains stop at the King Street Station, downtown at South King Street and Second Avenue South. Sounder trains travel between Lakewood and Seattle and between Everett and Seattle (Sound Transit 2018).

WSF operates ferry service accommodating both vehicle and walk-on traffic. Two ferry routes operate from the Colman Dock Terminal in downtown Seattle: the Seattle-Bainbridge ferry and the Seattle-Bremerton ferry. Metro operates the King County Water Taxi, which provides service between Pier 50 at the Seattle waterfront to West Seattle and Vashon Island. The ferry and water taxi terminals are about 1,500 feet walking distance from the Seattle Aquarium.

#### **3.1.1.4 Non-Motorized Use**

Very high levels of bicycle and pedestrian activity characterize the Seattle downtown and waterfront areas. The downtown sidewalk system is generally complete. Marked crosswalks with pedestrian crossing signals are provided at all signalized intersections. The City has constructed protected bicycle lanes along Second Avenue and continues to implement bicycle facility improvements throughout the downtown area. In addition to protected bike lanes, the AWPOW projects include constructing pedestrian enhancements along the waterfront such as crossing improvements, buffers between pedestrian and vehicle travel ways, and pedestrian amenities along the sidewalks. The Alaskan Way non-motorized improvements will also provide connection between the sections of the Elliott Bay Trail located along the waterfront to the north and south of the corridor.

### **3.1.2 Summary of Potential Impacts**

Construction-related activities under the action alternatives may have impacts related to truck trips, construction employee trips and parking, and short-term lane or sidewalk closures. The transportation and parking impact analysis also considers the long-term effects the Ocean Pavilion could have on elements of the transportation system that include the different modes of travel visitors may use to access the Ocean Pavilion, including walking, biking, driving, or taking transit. Table 3 in Appendix B describes the impact indicators for transportation and parking. Based on a combination of quantitative and qualitative assessments,

the degree of impact is determined as minor, moderate, or significant. Table 3-1 provides a summary of anticipated construction and long-term impacts for each alternative related to transportation and parking.

**Table 3-1  
Transportation and Parking Impacts Summary**

Alternative	During Construction	Long Term
1 (No Action)	<b>No Adverse Impact</b> No construction, therefore no construction impacts	<b>No Adverse Impact</b> No additional transportation or parking impacts beyond what was previously analyzed in the AWPOW EIS
2	<b>Minor to Moderate Impact</b> Potential temporary impacts associated with truck and construction employee trips, construction employee parking, and street lane or sidewalk closures adjacent to construction activities; impacts can be reduced through implementation of a Construction Management Plan and are anticipated to be minor to moderate depending on the construction activity	<b>Minor Impact</b> Additional visitors accommodated by Alternative 2 would generate additional vehicle, transit, and non-motorized trips, which could be accommodated by existing and planned future infrastructure without the need for transportation capacity improvements, and additional vehicle parking demand which could be accommodated by available parking garage capacity
3	Same as Alternative 2	Same as Alternative 2

### 3.1.3 Construction Impacts and Mitigation Measures

Alternative 1 would not include construction beyond what was analyzed in Section 3.3 of the AWPOW EIS, which considered the transportation and parking impacts of the overall improvements along the waterfront between Wall Street and South King Street, but did not explicitly consider the potential impacts of construction of the Ocean Pavilion. No additional construction impacts are identified for this alternative. The following impact analysis addresses the action alternatives.

#### 3.1.3.1 Construction-Generated Vehicle Trips and Parking

For the action alternatives, estimates of vehicle trips generated by construction activities—including trucks hauling site materials and construction employee trips—were based on the preliminary design and construction phasing anticipated for these alternatives. Because estimates are preliminary, they are conservatively high. For the action alternatives, trips would be generated by trucks traveling to support construction activities and also by construction workers commuting to and from the work site. Trucks are expected to average between about 10 and 20 round trips per day, over the duration of the 28-month construction period. The highest daily truck trips (about 50 round trips per day) are expected to occur during the period when excavation and foundation construction occurs.

It is anticipated that construction workers would arrive at the work site before the morning peak traffic period on area streets and depart the work site prior to the evening commute peak period. Vehicle trips generated by construction workers may be constrained by the amount of available parking at the work site; if measures are needed to eliminate potential parking overspill, they would also serve to reduce vehicle trips. An average of 100 construction employees are expected to be at the work site on any given day; the exact number would vary from day to day depending on the construction activities taking place.

Construction employees who drive to the work site would generate parking demand. For downtown projects, any employee parking that cannot be accommodated at the work site may require the use of off-site parking and transit or employee shuttles between the parking location and the work site, to prevent overspill to the public parking supply. However, it may be possible for some construction-generated parking to occur within the Pike Place Market Garage during periods or times of year when there is excess capacity. With mitigation in place (as described in the following section), construction-generated parking impacts would be minor.

Construction-generated trips and parking demand were estimated based on preliminary design and anticipated construction phasing. They would be refined as part of ongoing design.

### **3.1.3.2 Street Lane or Sidewalk Closures**

For the action alternatives, construction would be coordinated along the Alaskan Way frontage with the AWPOW projects to minimize lane and sidewalk closures. To the extent possible, truck staging would be located off Alaskan Way.

No major street closures are expected to occur with construction of the action alternatives. If necessary, lane or sidewalk closures during construction would be localized and limited in duration. Any closures that occur would need to be managed through measures developed as part of a Construction Management Plan, described in the following mitigation section. With mitigation measures in place, impacts related to street lane or sidewalk closures are anticipated to be minor to moderate, depending on the duration, level of capacity reduction, and length of detour.

### **3.1.3.3 Animal Care Center**

Construction activities associated with the Animal Care Center would generate a small number of trucks that would be spread out and would not have noticeable effect on traffic operations. Construction-generated parking for the Animal Care Center would be accommodated on site and would not result in adverse impacts.

### **3.1.3.4 Mitigation**

For the action alternatives, the contractor would be required to develop and implement a Construction Management Plan, which could potentially include, but not be limited to, the following avoidance and minimization measures:

- Prepare Maintenance of Traffic plans for any work within the public right-of-way that affects vehicular, transit, bicycle, or pedestrian traffic. These plans would be required to show the location of traffic cones, traffic control personnel, and signs; and indicate special treatments for pedestrian and bicycle access.
- Coordinate with the City to determine appropriate times of travel and haul routes for construction-generated truck traffic. In general, construction-generated truck traffic may be prohibited during weekday peak periods (6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.). Haul routes generally would be on arterial streets through commercial areas and consist of the most direct path to and from the state highway system.
- Maintain access for driveways near the work site.
- Provide adequate staging areas for construction-related vehicles.

- Provide on-site loading areas for removal and delivery of material.
- Encourage construction workers to commute via alternative modes, or provide shuttle service to and from the site for construction employees, to minimize added vehicle trips and parking demand at or near the site.
- Maintain pedestrian and bicycle access and circulation during project construction.
- Provide access for emergency vehicles at all times. During lane closures, notify police and fire departments of construction locations to ensure that alternative evacuation and emergency routes are designed to maintain response times during construction periods, if necessary.

Through its Street Use Permit process and consistent with SMC 15.32.050, SDOT would coordinate the construction needs and potential construction-related impacts of this project with the other infrastructure and development projects in the study area, including potential overlapping elements of the AWPOW projects' construction. SEAS would participate in construction coordination processes that SDOT establishes for major projects. Implementation of these measures is expected to reduce construction traffic and parking impacts to less-than-significant levels. Therefore, no mitigation measures are proposed.

### *3.1.4 Long-Term Impacts and Mitigation Measures*

#### **3.1.4.1 Traffic Volume**

Traffic volume impacts were analyzed by estimating visitor and employee trips as well as travel mode, average vehicle occupancy, and parking data to determine changes likely to occur at peak volumes.

For Alternative 1, PM peak hour volumes at the study area intersections were obtained from Section 3.4.2 of the AWPOW EIS (SDOT 2016a, 2016b) and reflect the AWPOW's selected preferred alternative in 2030 without the proposed Ocean Pavilion. The forecast volumes at the Pike Place Market Garage driveways were refined based on the July 2017 usage data and analysis that was completed for the garage expansion. The forecast volumes at the Pike Place Market Garage driveways used in that analysis assumed traffic associated with the increased garage capacity and reflected growth in area visitors as well as vehicles that may be displaced from nearby on-street parking. Some of this growth could be associated with the existing Aquarium. Figure 7 in Appendix B shows the projected 2030 PM peak hour volumes for Alternative 1.

The action alternatives reflect different configurations of the Ocean Pavilion; however, it is anticipated that the future visitor volumes with the Ocean Pavilion, and in turn the trips they would generate to and from the facility, would be the same for both alternatives.

Traffic forecasts for the action alternatives were based on existing and projected future Aquarium visitor data combined with visitor travel survey data collected by the Seattle Aquarium. Travel surveys indicated that about 51% of Aquarium visitors travel by car, with an average of 3.4 persons per car. Vehicle trips generated by Aquarium visitors are spread throughout the day, peaking in mid-afternoon. Future visitor volumes are projected to increase with the addition of the Ocean Pavilion. It is likely that some level of increase would occur without the Ocean Pavilion, but for the purpose of this analysis, the increased traffic volumes are conservatively attributed entirely to the two action alternatives. Overall, future visits are expected to increase by slightly more than 40% compared to existing conditions.

With Alternative 1, about 140 current paid employees and about 50 part-time volunteers would continue to work at the Aquarium on a typical peak season day. This daily number is projected to increase by about 60 staff persons and 40 volunteers with the Ocean Pavilion in full operation. With the action alternatives, additional employees are projected to generate 14 vehicle trips departing during the PM peak hour.

The additional trips taken by visitors and employees that would be generated by this growth was added to the Alternative 1 study area volumes to estimate the projected 2030 PM peak hour volumes for the action alternatives. The trip projections assume that new visitors and employees would travel directly to the Aquarium before their visit or work shift and depart directly after; and that all trips to and from the Pike Place Market Garage via Western Avenue would occur at one driveway. This results in a conservatively high estimate of PM peak hour vehicle trips and operating conditions associated with garage access. Table 3-2 shows the projected increase in vehicle trips as a result of the operation of the action alternatives. Figure 9 in Appendix B shows the projected 2030 PM peak hour volumes for the action alternatives.

**Table 3-2  
Projected Increase in Vehicle Trips Generated by Alternatives 2 and 3**

	Typical Day			Peak Season Day		
	In	Out	Total	In	Out	Total
<b>Daily Vehicle Trips</b>						
Visitor Rideshare and Taxi Trips	82	82	164	102	102	204
Visitor Trips to/from Pike Place Market Garage	49	49	98	63	63	126
Staff/Volunteer Commute Trips to/from Pike Place Market Garage	25	25	50	25	25	50
Visitor Trips to/from On-Street Parking and Other Garages (Outside Study Area)	209	209	418	266	266	532
<b>Increase in Vehicle Trips per Day</b>	<b>365</b>	<b>365</b>	<b>730</b>	<b>456</b>	<b>456</b>	<b>912</b>
<b>PM Peak Hour Vehicle Trips (4-5 p.m.)</b>						
Visitor Rideshare and Taxi Trips	11	11	22	15	15	30
Visitor Trips to/from Pike Place Market Garage	4	8	12	4	11	15
Staff/Volunteer Commute Trips to/from Pike Place Market Garage	0	14	14	0	14	14
<b>Increase in PM Peak Hour Vehicle Trips within Study Area</b>	<b>15</b>	<b>33</b>	<b>48</b>	<b>19</b>	<b>40</b>	<b>59</b>
Visitor Trips to/from On-Street Parking and Other Garages (Outside Study Area)	17	34	51	17	47	64
<b>Total Increase in Vehicle Trips in PM Peak Hour</b>	<b>32</b>	<b>67</b>	<b>99</b>	<b>36</b>	<b>87</b>	<b>123</b>

Source: Heffron Transportation 2018

### 3.1.4.2 Intersection Level of Service

Level of Service (LOS) designations are qualitative descriptions of traffic operating conditions, designated with letters ranging from LOS A, which is indicative of good operating conditions with little or no delay, to LOS F, which is indicative of stop-and-go conditions with frequent and lengthy delays.

All study area intersections are expected to operate at LOS D or better with Alternative 1. The additional vehicle trips generated in the study area by the action alternatives are projected to add a small amount of

average delay to some intersections but are not expected to change their overall LOS (Table 3-3). Based on these results, the long-term traffic impacts resulting from the action alternatives are anticipated to be minor.

**Table 3-3  
Level of Service Summary – 2030 Conditions – PM Peak Hour**

	Alternative 1		Alternative 2 or 3	
	LOS	Delay <sup>1</sup>	LOS	Delay <sup>1</sup>
<b>Signalized</b>				
Western Avenue/Lenora Street	D	39	D	39
Elliott Avenue/Lenora Street	B	16	B	16
Alaskan Way/Pine Street	C	34	C	35
Alaskan Way/Pike Place Market Garage driveway	A	5	A	6
Alaskan Way/Union Street	B	12	B	13
<b>Stop Sign-Controlled</b>				
Western Avenue/Pike Place Market Garage driveway ( <i>overall</i> )	A	1	A	1
Eastbound movement	C	19	C	20
Northbound left-turn movement	A	9	A	9

Source: Heffron Transportation, June 2018

Note:

1. Average seconds of delay per vehicle

### 3.1.4.3 Site Access and Circulation

The site access evaluation addresses deliveries and buses accessing the existing Aquarium and proposed Ocean Pavilion. A loading configuration was developed as part of the AWPOW projects and is used here with Alternatives 1, 2, and 3.

A loading area would be provided on the west side of Alaskan Way, next to the proposed Ocean Pavilion, and separated from the adjacent sidewalk (to the west) and Alaskan Way vehicle lanes (to the east) by landscaped buffers. The loading area would accommodate both delivery vehicles and buses. A curb cut within the loading area would allow direct east-west access to the waterfront piers via the Waterfront Promenade (located between Piers 59 and 60 and the Ocean Pavilion) for emergency, freight, delivery, garbage, and recycling vehicles. These vehicles would have access to the piers at all times, but any loading directly on or off the Waterfront Promenade would be discouraged during peak pedestrian periods, and loading activities would be managed by staff, to maintain safety. Alternative 1 is expected to generate 4 to 6 truck deliveries per day, and the action alternatives are expected to generate about 6 to 8 trucks per day. Deliveries primarily are spread out during off-peak periods and are expected to have a minor effect on traffic operations. All three alternatives include service routes to the Seattle Aquarium that cross the Aquarium Plaza that would be used by a small number of trucks per day.

Alternative 1 is expected to result in about 8 to 10 buses per day that carry groups to and from the Seattle Aquarium, and the action alternatives are expected to result in an increase to about 15 to 20 buses per day during peak day conditions. Bus traffic is typically generated by the Aquarium during daytime

hours, between 9:00 a.m. and 3:00 p.m., to correspond with typical school hours and is not expected to affect PM peak hour traffic conditions for all three alternatives.

With either action alternative, delivery and passenger loading infrastructure would be designed to meet City standards and would adequately accommodate loading without adversely affecting pedestrian or vehicle circulation at and near the Ocean Pavilion. Because delivery and passenger loading activities are not expected to adversely affect traffic operation at site access points and loading needs would be adequately accommodated through adherence to City standards, impacts resulting from loading activities are anticipated to be minor.

#### **3.1.4.4 Parking**

With Alternative 1, there would be no changes to parking demand or supply, beyond what was evaluated in Section 3.7 of the AWPOW EIS.

With the action alternatives, new visitors and employees would generate additional parking demand: an additional 258 vehicles parked per day on a typical day and 329 vehicles parked per day on a peak day. Parked vehicles generated by Aquarium visitors would be spread throughout the day and would not all be parked at the same time. Applying the visitors by hour of day, as well as the typical duration of stay reflected in the Aquarium visitor surveys, results in a peak hour demand of 89 parked vehicles on a typical day and 116 parked vehicles on a peak day. Based on employee vehicle trip projections, each action alternative is expected to generate an additional 25 vehicles parked by Aquarium staff and volunteers per peak season day.

On a typical weekday during the peak visitor season, when parking demand is highest in the downtown core area of Seattle, including garages along the waterfront, the action alternatives are projected to generate an additional peak parking demand of about 45 vehicles in the Pike Place Market Garage at mid-afternoon, compared to Alternative 1.

With the additional parking demand generated by either of the action alternatives, the Pike Place Market Garage is expected to have more than 300 spaces available throughout the weekday to accommodate demand generated by other uses. While the Pike Place Market Garage would have adequate capacity to accommodate all increased parking demand, the action alternatives are projected to generate about 94 additional vehicles at other locations spread throughout downtown during the peak demand hour. However, the visitor travel survey showed that these vehicles would be spread out between on-street parking and private lots and garages throughout the downtown area and would be less concentrated than the demand generated within the study area. Downtown parking capacity illustrated in Table 2 of Appendix B shows that there is ample capacity in private lots and garages to accommodate this demand. Because parking capacity would be available to accommodate the additional parking demand generated by the action alternatives, parking impacts are anticipated to be minor.

#### **3.1.4.5 Freight**

Consistent with the AWPOW EIS analysis, and as described in Section 4.4.2 of the *Appendix A: Transportation Discipline Report* (SDOT 2016c) prepared for that document, the Alternative 1 operational analysis assumes the same percentage of heavy (freight) vehicles in the study area as under 2017 existing conditions. Action alternative analysis assumes the same percentage of heavy (freight) vehicles in the study area as under

2017 existing conditions. None of the alternatives would affect citywide freight routes because they are outside of the study area. Therefore, no freight impacts are anticipated.

#### **3.1.4.6 Transit**

With Alternative 1, there would be no changes to transit demand or supply, beyond what was evaluated in the AWPOW EIS.

The action alternatives are projected to result in an increased number of visitors who travel to and from the Seattle Aquarium by transit. The 224 (typical day) to 285 (peak day) additional visitors who travel by transit translates to 448 to 570 new transit trips per day, as each visitor makes one inbound transit trip to the Seattle Aquarium and one outbound trip at the end of their visit. The peak transit demand would occur mid-day and would not overlap with the commuter peak hours into and out of downtown.

The collective transit options for downtown Seattle provide capacity that is more than adequate to support the increased transit demand generated by the action alternatives. Increased transit ridership is considered beneficial because it supports, local, regional, and statewide policies that encourage the use of alternative transportation modes instead of driving. None of the alternatives would affect transit stops, stations, or routes. No adverse transit impacts are anticipated to result from the proposed action.

#### **3.1.4.7 Non-Motorized Travel**

With Alternative 1, there would be no changes to non-motorized facilities or conditions, beyond what was documented in Section 3.4.2 of the AWPOW EIS. The existing Seattle Aquarium would be incorporated into the extensive pedestrian and bicycle improvements that are being constructed along the waterfront as part of the AWPOW projects.

Additional non-motorized demand generated by the action alternatives was estimated by applying the survey travel mode data previously described to the forecast visitor increases. Since the site has no added parking, all new patron trips are assumed to be non-motorized trips between the site and parking, transit, or other walking destinations. The impact of the increased demand was qualitatively evaluated with respect to available non-motorized facilities in the area, including pedestrian connections and at-grade crossings of Alaskan Way, and also consistency with local and regional policies (described in the Regulatory Context section of Appendix B) that encourage use of alternative travel modes.

Both action alternatives are projected to result in an increased number of visitors who travel to and from the Aquarium by walking or biking. The 482 (typical day) to 613 (peak day) additional visitors who travel by walking or biking translates to 964 to 1,226 new walking and biking trips per day, as each visitor makes one inbound trip to the Aquarium and one outbound trip at the end of their visit. In addition, since the Seattle Aquarium has no on-site parking, all new patron trips would include a non-motorized component. With the action alternatives, the Ocean Pavilion would be integrated with the AWPOW projects' improvements, providing additional pedestrian space and meeting all accessibility standards. The existing and planned future pedestrian and bicycle facilities would adequately accommodate additional non-motorized demand generated by the expanded facility. Increases in people walking or biking is considered beneficial because it supports, local, regional and statewide policies that encourage the use of alternative transportation modes instead of driving. No adverse non-motorized impacts are anticipated to result from the action alternatives.

### **3.1.4.8 Event Conditions**

The Seattle Aquarium currently hosts special events, and the Ocean Pavilion could increase event capacity. The existing facility has an event capacity of 800 guests. In 2017, 113 events were held over the course of the year, with an average attendance of 230. In July 2017, the month with the highest level of overall visitor activity, 19 events were held, ranging in size from 15 to 800 guests, with an average attendance of 176. With the action alternatives, event capacity would increase to about 1,200 guests. The frequency of events is not expected to materially change, but an average attendance of about 600 is projected with full operation of these alternatives. Because these events primarily occur during off-peak hours (during weekends or weekdays after the Aquarium is closed to the general public, after the PM peak hour) the overall typical traffic volumes are expected to be lower than the PM peak hour condition, and intersection operations would typically be better than the results summarized in Table 3-3. Therefore, no operational analysis was conducted for event conditions.

Typically, peak parking occupancy at the Pike Place Market Garage and other garages in the area occurs in the mid-afternoon and occupancy steadily declines later in the afternoon on all days of the week. During the evening hours, there is ample parking capacity available to accommodate event parking demand, and no adverse impacts on parking are anticipated from event activities.

### **3.1.4.9 Animal Care Center**

The proposed Animal Care Center may be located on Harbor Island or a similar warehouse location, about 5 miles from the Seattle Aquarium. It is expected that up to 2 to 4 employees would typically generate about 2 to 4 commute trips per day. Fewer than 3 trips per day would typically be generated by operation of the facility and would primarily occur during off-peak periods. Because trips generated by the Animal Care Center would be small in number and spread through the day, they would have a negligible effect on traffic operations. On-site parking supply and loading facilities would meet City code requirements and standards; therefore, no adverse impacts related to parking or loading are anticipated.

### **3.1.4.10 Mitigation**

No significant long-term transportation or parking impacts are anticipated to result from Alternatives 1, 2, or 3, or the Animal Care Center; therefore, no mitigation is proposed.

## **3.2 Land Use**

This section provides a summary of the findings contained in Appendix C. The land uses surrounding the Ocean Pavilion are expected to be modified by completion of the AWVRP and AWPOW projects, with construction for these projects anticipated to begin in late 2018 and mid-2019, respectively, as of the publication of this Draft EIS. Because the action alternatives are located within an area being modified by the AWPOW projects, this analysis incorporates by reference the AWPOW EIS documents (SDOT 2015a, 2016a, and 2016b).

### 3.2.1 *Affected Environment*

The land use study area includes the building footprints of the Ocean Pavilion and Animal Care Center (potential location), with a 500-foot buffer from the footprint boundaries to include adjacent properties where impacts may occur (Figure 3-2).

The two parcels in the footprint of the building in the action alternatives include King County Parcel No. 7666202380 at 1529 Alaskan Way, which is currently a parking lot, and the Alaskan Way right-of-way. The parcel at 1529 Alaskan Way is zoned Downtown Harborfront 2, as are the other parcels in the study area between Alaskan Way and the Alaskan Way Viaduct. Zoning of the remaining parcels in the study area is Downtown Harborfront 1 west of Alaskan Way, and Pike Market Mixed east of the Alaskan Way Viaduct.

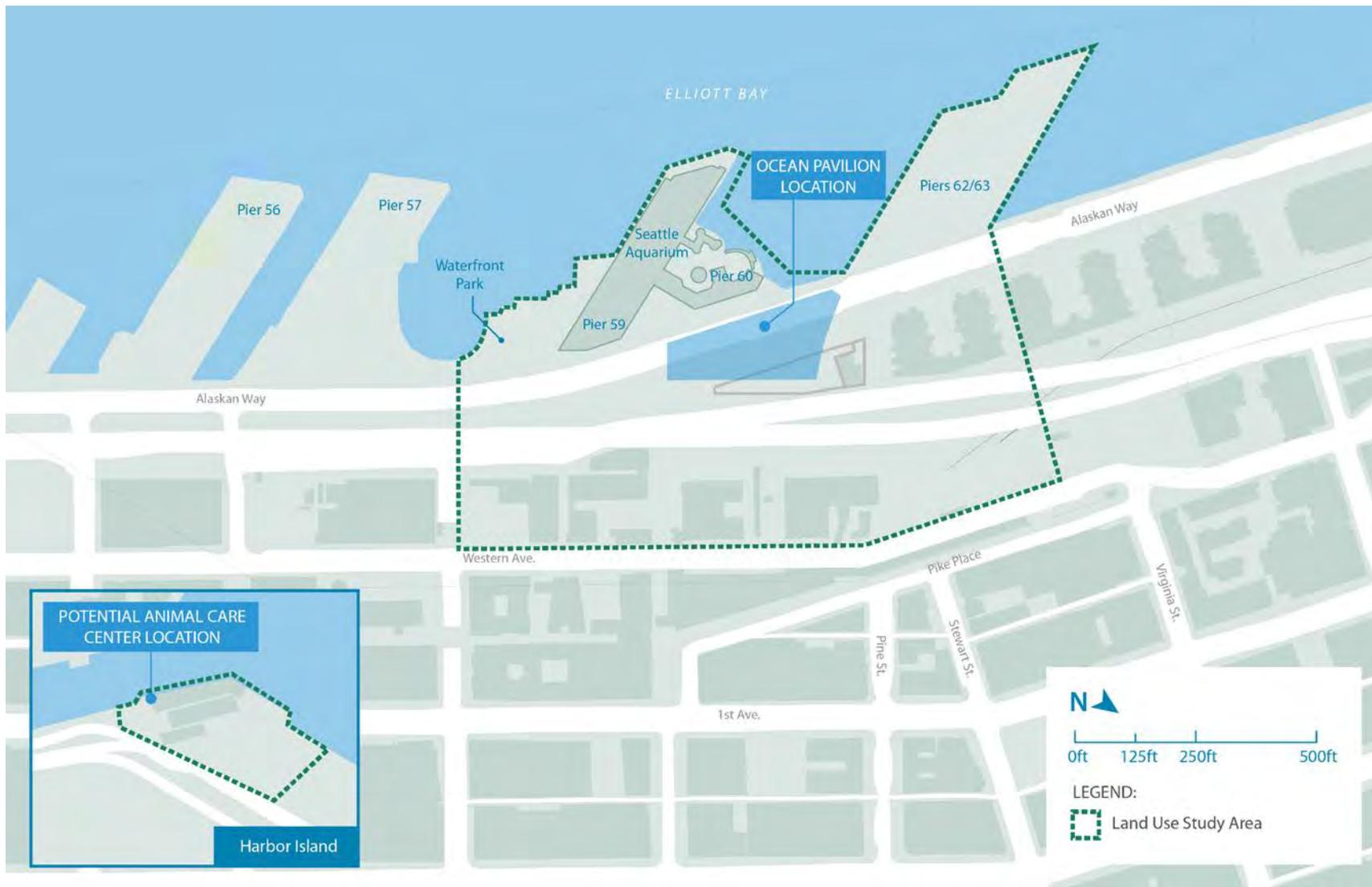
To the west, the building footprint and a portion of the surrounding study area is within the Shoreline District and regulated by the Shoreline Master Program. This area is designated as an Urban Harborfront shoreline environment. Pier 59 is also within the Urban Harborfront Historic Character Area.

The 1529 Alaskan Way parking lot and the Alaskan Way roadway are currently used for transportation purposes. According to King County Assessor's records and direct observation, land use of surrounding parcels includes the following:

- Museum (Seattle Aquarium)
- Park/Open Space (Piers 62/63 Park and Waterfront Park)
- Multifamily Residential (Waterfront Landings Viaggio building, Hillclimb Court Condominiums, and Fix Madore building)
- Parking (lot bounded by Union Street, Alaskan Way South, and Western Avenue)
- Commercial Office and Retail (antiques market at 1400 Alaskan Way, offices at 1415 Western Avenue and 1426 Alaskan Way)
- Mixed Use (MarketSpace development, consisting of multifamily residential, parking, and commercial space)

A parcel to the north of the Ocean Pavilion area was previously a commercial office building at 1528 Alaskan Way, but the building is scheduled for demolition under the AWVRP. The 1528 Alaskan Way parcel is currently identified for transportation use, and is a planned staging area for AWVRP. Two Seattle Parks and Recreation-owned and operated parks are located in the study area: Piers 62/63 Park and Waterfront Park.

The potential location of the Animal Care Center on Harbor Island is King County Parcel No. 7666703020, which is zoned Industrial General 1. The established land use of the parcel is Warehouse, and the building is currently used for light industrial activities and storage. Parcels to the north, west, and east are classified as Industrial, and to the south as Parking. Part of the parcel is within the Urban Industrial shoreline environment.



**Figure 3-2**  
**Land Use Study Area**

### 3.2.2 Summary of Potential Impacts

The land use impact analysis considers whether the proposed action is consistent with existing plans and policies, and whether the proposed action includes land use conversions that disrupt communities or land use restrictions or changes. Table 2 in Appendix C describes the impact indicators for land use. These impacts may be adverse or beneficial, and are categorized as minor, moderate, or significant. Table 3-4 provides a summary of anticipated construction and long-term impacts for each alternative related to land use.

Construction of either action alternative would result in minor impacts. The action alternatives are anticipated to provide minor long-term benefits because the Ocean Pavilion would increase educational opportunities and support anticipated land uses in the area, consistent with local plans and policies. Alternative 3 would have slightly more benefit because it preserves unobstructed public views of Elliott Bay, whereas Alternative 2 would have partially obstructed public views. Additionally, both action alternatives would improve access to Pike Place Market from the waterfront, although this would occur to a greater extent with Alternative 3 because pedestrian access would have a more level connection with the Overlook Walk and a more visible elevator connection.

**Table 3-4  
Land Use Impacts Summary**

Alternative	During Construction	Long Term
1 (No Action)	<b>No Adverse Impact</b> No construction, therefore no construction impacts	<b>No Adverse Impact</b> Would maintain public open space and access consistent with the goals of applicable land use plans and policies as analyzed in the AWPOW EIS (SDOT 2016b)
2	<b>Minor Impacts</b> Potential impacts associated with noise, dust, congestion, loss of parking, and access changes	<b>No Adverse Impact, Minor Benefit</b> <ul style="list-style-type: none"> <li>• Would further the goals of applicable land use plans and policies for education, increased multimodal connections, and open space and recreation</li> <li>• Would provide public open space and access to the rooftop and partially obstructed public views of Elliott Bay, preserving some views of the water</li> </ul>
3	<b>Minor Impacts</b> Potential impacts associated with noise, dust, congestion, loss of parking, and access changes	<b>No Adverse Impact, Minor Benefit</b> <ul style="list-style-type: none"> <li>• Would further the goals of applicable land use plans and policies to a greater degree than Alternative 2 for increased multimodal connections and open space and recreation</li> <li>• Would provide public open space and access to the rooftop; the higher elevation would provide unobstructed public views of Elliott Bay over Pier 59, preserving views of the water consistent with policies and goals of the City's Comprehensive Plan</li> <li>• Would also provide improved access to the Pike Place Market from the waterfront to a greater degree than Alternative 2 because pedestrian access would have a more level connection with the Overlook Walk and a more visible elevator connection; there would also be more landscaping on the Ocean Pavilion roof as compared to Alternative 2</li> </ul>

### 3.2.3 *Construction Impacts and Mitigation Measures*

No construction impacts are anticipated from Alternative 1: No Action Alternative beyond those analyzed in the AWPOW EIS. Therefore, no mitigation would be required.

Both action alternatives would have the same construction-related impacts and mitigation. Access to land uses such as residences, parks and recreational facilities, and the Seattle Aquarium would change temporarily during construction. None of these disruptions would change or convert any land uses. Temporary occupation of the right-of-way at sidewalks, streets, and utility corridors would occur; however, local access would be provided at all times. Other disruptions that could affect land uses include an increase in traffic congestion around work zones, road closures, traffic diversions, and detour routes affecting access to residences, parks and recreational facilities, and the Seattle Aquarium. Construction equipment, staging or stockpiling of materials, fencing, or scaffolding could make the area less convenient or appealing to potential visitors. Noise levels in areas of active construction could be intermittently high, resulting in higher ambient noise levels for nearby land uses. These impacts would be minor because there would be no conversions of existing land uses, land uses would remain consistent with existing plans and policies and land use changes (such as detours or short-term occupations of sidewalks) would be temporary.

Construction at the potential Animal Care Center would occur under either action alternative. Because no exterior construction is planned, construction would be of a much lesser magnitude. No disruptions to traffic patterns or access are anticipated. The area where the potential Animal Care Center would be located is already industrial in character; no residences, parks, or recreational or educational facilities are in the vicinity. Given the minimal construction activity and industrial setting, construction at the potential Animal Care Center would have no adverse impacts on land use.

Avoidance and minimization measures for minor temporary construction impacts on land uses in the area include maintaining transportation and parking as well as access to residences and parks/open space (SDOT 2016b; Appendix B). These would include clearly marking roadway detours and pedestrian and bicycle routes, accommodating loading and delivery access, and use of traffic control devices and flaggers.

Avoidance and mitigation measures for minor impacts from increased noise levels and reduced visual quality would include minimizing light and glare (especially near condominium residences) through such means as directional lighting or light barriers, screening the construction area and adding interpretive display elements or viewing windows in screening, using low-noise emission equipment or installing silencers or sound-deadening materials, minimizing the use of generators, and limiting high-noise activities to daytime hours to the extent practicable. The contractor would need to comply with the City's Noise Ordinance for construction activities and would be anticipated to obtain any required variances from the City during construction, as necessary.

### 3.2.4 *Long-Term Impacts and Mitigation Measures*

All three alternatives are compatible with applicable land use plans and policies and are expected to accomplish the following:

- Improve pedestrian connections through the waterfront

- Encourage and support planned growth
- Develop water-oriented uses of the shoreline and waterfront public facilities
- Provide opportunities for public open space and enjoyment of the shoreline and water views (although this would occur to a greater extent for Alternative 3, as described in Appendix D, in particular because Alternative 3 would provide additional public open space between the building and Pier 60, Piers 62/63, and the Elliott Bay shoreline, including space to provide expanded stairs and viewing areas in the Overlook Walk design; additionally, the 50-foot building height in Alternative 3 would provide unobstructed public views of Elliott Bay, consistent with the goals and policies of the City's Comprehensive Plan [City of Seattle 2017])
- Improve access to the Pike Place Market from the waterfront, although this would occur to a greater extent with Alternative 3 because pedestrian access would have a more level connection with the Overlook Walk and a more visible elevator connection

Table 3-5 provides additional detail on the consistency of the three alternatives with land use goals, which shows that Alternative 3 has a greater beneficial impact than the other two alternatives, because it is more consistent with land use plans and policies and better promotes some of the stated goals.

**Table 3-5  
Summary of Consistency with Applicable Land Use Plan Goals**

Alternative	Increased Multimodal Connectivity	Economic Development	Urban Growth	Environmental Protection and Education	Open Space and Recreation	Public Facilities and Services
1 (No Action)	No change to existing pedestrian connectivity	No additional infrastructure to draw visitors	Compatible with planned growth in the waterfront area	No changes related to environmental protection or enhancement; no environmental education component because there would be no Ocean Pavilion	No change in open space and recreation opportunities	No change in public facilities and services
2	No change to existing pedestrian connectivity as compared to the No Action Alternative	Provides substantial investment in infrastructure that supports tourist destinations and small businesses	Compatible with planned growth in the waterfront area	No changes related to environmental protection or enhancement; improved opportunity for environmental education	No change in open space and recreation opportunities; elevated viewpoint (40-foot building height) would provide partially obstructed public views of the water from the roof	Includes an exterior public elevator and stairs
3	Provides an enhanced connection with the Overlook Walk as well as connections to Pike Place Market	Provides substantial investment in infrastructure that supports tourist destinations and small businesses	Compatible with planned growth in the waterfront area	Allows for more landscaping on the public plaza and roof, improved opportunity for environmental education	Elevated viewpoint (50-foot building height) allows for 180-degree views of the water above Pier 59 from the roof; moving the building south creates direct public open space with public views of the water on the north side of the Ocean Pavilion	As a result of moving the public elevator and stairs to the south, there would be closer proximity and more direct connection to the existing Seattle Aquarium

Under both action alternatives, public right-of-way would be reduced because the Ocean Pavilion would occupy a greater extent of the Aquarium Plaza space. However, both action alternatives would provide additional public open space on the roof of the Ocean Pavilion, which is partially dedicated right-of-way. Therefore, no land use or access restrictions related to public space are identified with the action alternatives.

The two action alternatives would develop an Ocean Pavilion to accommodate an increase in future attendance and meet the objectives of the proposed action consistent with the SEAS *Seattle Aquarium Strategic Plan 2011-2030* (2011) and *A Master Plan for Expansion* (2015). These planning documents were developed in coordination with the City to integrate expansion of the Seattle Aquarium in concert with planned waterfront development.

The two action alternatives would also increase educational opportunities in the area. Providing opportunities for environmental education is identified as a goal (Land Use Goal 17.7) in the City's Comprehensive Plan (City of Seattle 2017a). Under the No Action Alternative, this goal would not be met by development at the site; whereas under either action alternative, an immersive environmental education opportunity related to conservation of the marine environment would be provided by the Ocean Pavilion.

The operation of the Animal Care Center would continue industrial uses of Harbor Island. It is consistent with land use plans and policies, and would not convert or restrict land use. No adverse impacts are anticipated from operation of the Animal Care Center.

No significant long-term land use impacts are anticipated to result from Alternatives 1, 2, or 3; therefore, no mitigation is proposed.

### **3.3 Aesthetics and Scenic Resources**

This section provides a summary of the findings contained in Appendix D.

#### **3.3.1 Affected Environment**

The study area delineates places in the surrounding landscape where viewers may perceive a change in visual character and visual quality. Because changes to the Animal Care Center would be to the interior of an existing building, and no visual impacts are anticipated with the Animal Care Center, it is not included in the study area.

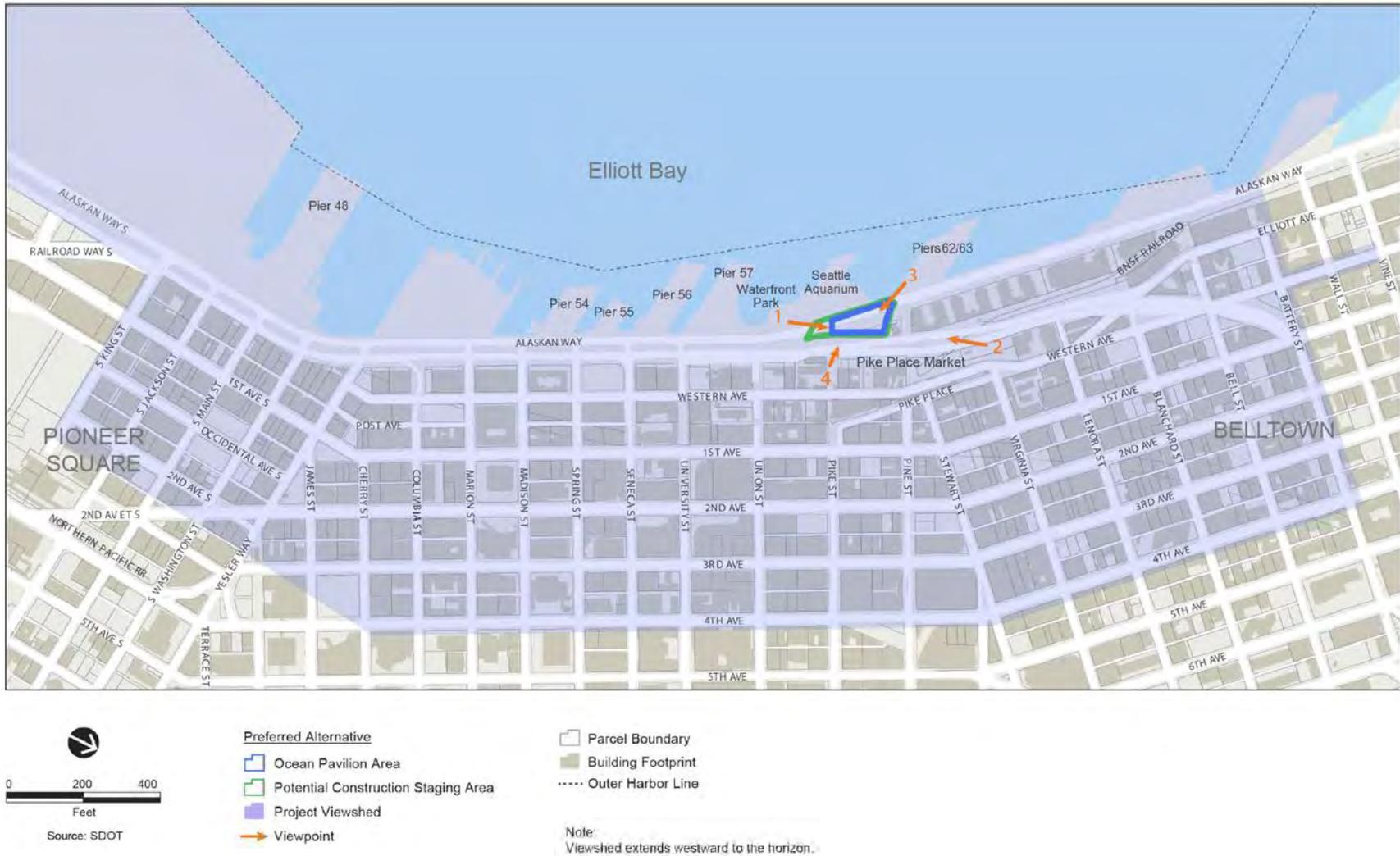
The study area for aesthetics and scenic resources is adapted from the project viewshed presented in the AWPOW EIS, using a smaller study area and refining project-level views to include a foreground view area where changes to the view would be more noticeable and, barring obstructions, would be seen from the street and public lands, and a background view area where view changes would be less perceptible to viewers, except for those looking west from upper floor windows. The aesthetics and scenic resources study area is shown in Figure 3-3.

The study area boundary is described herein, and defines the one "landscape unit" used for the analysis. Landscape units are the geographic unit of a visual assessment and have a particular visual identity

(U.S. Department of Transportation 2015). Because of the limited project footprint compared to AWPOW, only one landscape unit is established.

The project landscape unit is centered around the waterfront along Alaskan Way and is bounded by Puget Sound to the west, downtown's Fourth Avenue to the east, Belltown's Battery Street to the north, and Pioneer Square's Yesler Way to the south. The waterfront and Pike Place Market are regional destinations for tourism, and the surrounding area hosts a wide range of commercial, office, residential, and open space uses.

The affected environment represents the conditions in the study area as of 2018, before construction of the Ocean Pavilion, including the overall visual character, affected viewers, and visual quality levels (based on natural harmony, cultural order, and project coherence). The analysis compares the No Action Alternative with the action alternatives and is described in detail within Appendix D.



**Figure 3-3**  
**Project Viewshed and Viewpoints**

Source: LMN Architects (modified from SDOT 2016b)

### 3.3.1.1 Visual Character

The natural environment is dominated by the open water of Puget Sound, views of West Seattle and Bainbridge Island, and background views of the Olympic Mountains to the south and west of Elliott Bay. The landform includes flat, filled land along the waterfront and steep, terraced hillsides rising up east of Alaskan Way to First Avenue. Given the highly urbanized landscape, vegetation is limited and mostly consists of ornamental species (e.g., a variety of mostly deciduous street trees, perennial plantings within medians), turf within Victor Steinbrueck Park, and west of Alaskan Way temporary grey-metal planter boxes with a variety of small trees and ornamental flowers and grasses.

The built environment is quite legible, aided by a strong street grid, though a grid that pivots at Stewart Street. Buildings and structures comprise a mixture of styles and ages, ranging from historic piers and low-rise buildings to modern steel and glass high-rises. In general, continuity of building heights exists with low-rise structures along the waterfront, predominately mid-rise structures in the hillclimb areas, and high-rise buildings farther east. The exception to this continuity on the waterfront is the Seattle Great Wheel, a Ferris wheel that stands 175 feet tall above Pier 57. Ground-level parking lots and loading areas are interspersed throughout the landscape unit, but are fairly limited given development trends in the city.

Affected viewers include a mixture of tourists, local workers, residents, and commuters. Viewers with closer proximity views, longer exposure to views (office workers or residents), or who are explicitly visiting the area for views (tourists) will be more sensitive to visual quality changes. Commuters passing through the area who have more limited view extents and/or limited duration of views will be less sensitive to visual quality changes.

### 3.3.1.2 Key Viewpoints

The terraced development and landforms combined with view protection policies (SMC 23.49.024, SMC 23.60A.170, and SMC 25.05.675.P) have preserved a number of view locations overlooking the project footprint. Within the study area, Waterfront Park and Victor Steinbrueck Park have SEPA-protected views of Puget Sound and the downtown skyline. Preservation of open space on piers and street or hillclimb rights-of-way also provide ground-level views of the project footprint. Four key viewpoints were selected based on the project footprint's visibility from them, their public accessibility and popularity of use, and, for some viewpoints, their protected status under SEPA. Two of these viewpoints are located in public open spaces with SEPA-protected views (Waterfront Park and Victor Steinbrueck Park), and two more viewpoints are in well-used public open spaces that have good visibility of the proposal and currently contain views of the city skyline (Piers 62/63) or limited peep-hole views of Puget Sound (Pike Street Hillclimb).

Although private views are not protected under SEPA rules and policies, , an analysis was undertaken of the view impacts on adjacent residential uses, using the Waterfront Landings Viaggio building and the Fix Madore building as representative of private viewpoints.

## 3.3.2 Summary of Potential Impacts

Impacts on aesthetic and scenic resources relate to changes to the environment and how viewers perceive them. Specifically, the analysis examines whether alternatives are compatible with the surrounding environment and can be visually absorbed into the environment. How viewers perceive views includes an

examination of whether viewers will be sensitive to changes in the views and also relates to whether scenic views for this population will increase or decrease. Table 2 in Appendix D describes the impact indicators for aesthetics and scenic resources. Taken together, these changes define the degree of impact as either minor, moderate, or significant. Because changes to the Animal Care Center would be to the interior of an existing building, no visual impacts are anticipated to occur during construction. Table 3-6 provides a summary of anticipated construction and long-term impacts for each alternative related to aesthetics and scenic resources.

**Table 3-6  
Aesthetics and Scenic Resources Impacts Summary**

Alternative	During Construction	Long Term
1 (No Action)	<p><b>No Adverse Impact</b></p> <p>No construction, therefore no construction-related impacts</p>	<p><b>Moderate Benefit</b></p> <p>Beneficial effects to the general public from increasing the visual quality of existing important views of the water, sky, and background landforms as described in the AWPOW EIS (SDOT 2016b)</p>
2	<p><b>Moderate Impact</b></p> <p>Potential short-term impacts associated with construction equipment, temporary facilities and staging, soil/dust/exhaust, temporary lighting, and traffic pattern changes; SEPA-protected view impacts may include loss of some views of the downtown city skyline to the north from Waterfront Park’s adjacent sidewalk and potential loss of some views of Puget Sound from Victor Steinbrueck Park dependent on the location and height of the construction crane and other equipment.</p>	<p><b>Minor Impact</b></p> <ul style="list-style-type: none"> <li>• SEPA-protected view impacts may include a change to of some views of the downtown city skyline to the north from Waterfront Park’s adjacent sidewalk</li> <li>• Slight impact from public and private views through the limited obstruction of natural and city skyline views (natural harmony), and obstruction of the street grid limiting viewer understanding and wayfinding cues (project coherence); these impacts would be most pronounced from viewpoints looking south or looking east and are due to the building location projecting out prominently from the Overlook Walk</li> <li>• However, this alternative is currently designed to a 40-foot-tall building and adjoining Overlook Walk, while current code would allow for a 50-foot-tall building; this alternative’s current height obstructs slightly less views of the water and background landforms from viewpoints looking west, compared to Alternative 3</li> </ul>
3	<p><b>Moderate Impact</b></p> <p>Potential short-term impacts associated with construction equipment, temporary facilities and staging, soil/dust/exhaust, temporary lighting, and traffic pattern changes; SEPA-protected view impacts may include loss of some views of the downtown city skyline to the north from Waterfront Park’s adjacent sidewalk and potential loss of some views of Puget Sound from Victor Steinbrueck Park dependent on the location and height of the construction crane and other equipment.</p>	<p><b>Minor Impact</b></p> <ul style="list-style-type: none"> <li>• SEPA-protected view impacts may include changes to some views of the downtown city skyline to the north from Waterfront Park’s adjacent sidewalk</li> <li>• Slight impact from public and private views through the limited obstruction of natural and city skyline views (natural harmony), and obstruction of the street grid limiting viewer understanding and wayfinding cues (project coherence); these impacts would be most pronounced from views looking west and looking north due to the building’s location and taller height (50 feet) compared to Alternative 2</li> <li>• However, the building has better integration within the Overlook Walk compared to Alternative 2.</li> <li>• Alternative 3 also has a more level connection with the Overlook Walk and connections to Pike Place Market that increases legibility and wayfinding at this location</li> </ul>

### 3.3.3 *Construction Impacts and Mitigation Measures*

No construction impacts are anticipated from Alternative 1: No Action Alternative. The Ocean Pavilion would be constructed under the action alternatives. The action alternatives would have similar temporary adverse impacts on aesthetics. Visual quality would be temporarily degraded due to the following conditions:

- Construction equipment including a land-based crane, land-based equipment, and material staging and stockpiling areas around the site would obstruct some water and background landform views
- High-visibility (likely orange-colored) barriers and fencing for safety and sediment and erosion control would be installed and detract from the orderliness of the views
- Soil, dust, and exhaust from equipment and activities could detract from the air and visual quality
- Temporary lighting could brighten the area during nighttime construction activity (if needed)
- Traffic patterns for motorists, pedestrians, and cyclists would be disrupted, potentially leading to more congestion

In general, construction of both action alternatives has some potential to affect visual resources; but in both cases, impacts are likely to be moderate and there would not be substantial differences in impacts between the two action alternatives. Additional information regarding construction-related impacts on aesthetics and scenic resources from the action alternatives are included in Appendix D.

Measures to avoid or minimize construction-related impacts for both action alternatives could include the following:

- Protecting visual resources through the development of a construction screening plan, which could include integrating temporary public artwork murals and select windows into construction areas to both provide an attractive screen and opportunities for interested parties to observe the progress of construction
- Limiting nighttime construction activities and thus lighting, and considering light barriers or directing lighting away from residential buildings that could be disturbed by glare

### 3.3.4 *Long-Term Impacts and Mitigation Measures*

No long-term impacts are anticipated from Alternative 1: No Action Alternative beyond those analyzed in the AWPOW EIS, although moderate benefits to the general public are anticipated from increasing the visual quality of existing important views of the water, sky, and background landforms.

For Alternative 2, the AWPOW EIS identified substantial view benefits during operation but also moderate adverse impacts due to view blockages and changes to form, texture, and materials of the view within the AWPOW waterfront landscape unit. The “Aquarium Pavilion” described in the AWPOW EIS would contribute to potential impacts by blocking some views of the city skyline from a few viewpoints but was not identified as a primary contributor of impacts; these contributors were identified as the Overlook Walk, kiosks, and new street trees (SDOT 2016b, Section 5.3.2).

Alternative 3 provides a greater degree of aesthetic improvement as compared to Alternative 2 through the following components:

- The building's rooftop design would allow for rooftop landscaping that, together with the Overlook Walk public plaza landscaping, has more vegetation contributing to natural harmony
- Building height would allow for enhanced public views from the Overlook Walk/rooftop, by elevating the viewpoint above Pier 59, allowing 180-degree views of the water
- A more level connection with the Overlook Walk and connections to Pike Place Market would be provided and increases legibility and wayfinding at this location
- With the Ocean Pavilion located farther south, the following benefits would be provided:
  - The creation of a public open space directly opposite the opening between Piers 62/63 and Pier 60, providing direct public views to the water from the open space
  - Fewer waterfront views would be blocked from the public space on the Overlook Walk or from the public stairs
- Location of the public elevator to the south would provide more visible access for visitors on the Alaskan Way sidewalk, contributing to project coherence

SEPA-protected view impacts would include changes to the view of the downtown city skyline to the north from portions of Waterfront Park's adjacent sidewalk. No view impacts to Puget Sound from SEPA-protected view locations were identified.

The action alternatives would affect views of the open sky present in the No Action Alternative view at the base of the Pike Street Hillclimb, but only to a minor degree (approximately 6% of the view for Alternative 2 and 24% of the view for Alternative 3), the existing view has very limited views of the sky and water due to the existing Alaskan Way Viaduct. Background views of the city skyline and open sky present in the No Action Alternative view from Waterfront Park would be obstructed depending on a viewer's location in the park (approximately 18% of the view for Alternative 2 and 37% of the view for Alternative 3); but the proposed development would fit into the surrounding urban view, and a plaza rather than a street foreground view from this location would provide a visual benefit. The building would not obstruct views for visitors looking toward the city skyline from interior locations in the park (30 feet west of the sidewalk, note that the Waterfront Park assessment includes the adjacent sidewalk); approximately 49% of the pedestrian-accessible park (total area including the sidewalk portion of park but not the water portion) has views of the building.

Under the action alternatives, private views from Fix Madore would likely have moderate impacts on waterfront views, with the height of the proposed buildings reaching halfway past the second-highest floor; however, views from most of the west-facing windows appear to be obstructed by existing vegetation and the existing Alaskan Way Viaduct. Views from Waterfront Landings Viaggio would likely have moderate impacts on city skyline views, though only limited waterfront views to the south may be obstructed.

Because changes to the Animal Care Center would be to the interior of an existing building, no long-term visual impacts are anticipated during construction.

Overall, the action alternatives would have minor adverse impacts on scenic views of the open water and background landforms from street-level views, due to existing waterfront buildings currently obstructing these views and the proposed building heights being low enough to avoid further view obstruction.

### **Mitigation Measures**

No significant adverse impacts on aesthetic and scenic resources are anticipated; therefore, no mitigation measures are proposed. However, as the preferred design for the Ocean Pavilion is selected and undergoes review through the Design Commission process, design refinements to minimize potential impacts will be incorporated. These refinements may relate to the building envelope's material selection, landscaping, or changes to more prominent aspects of the building. The design refinement process will ensure that the Ocean Pavilion is integrated with the overall Waterfront Seattle program.

## **3.4 Historic and Archaeological Resources**

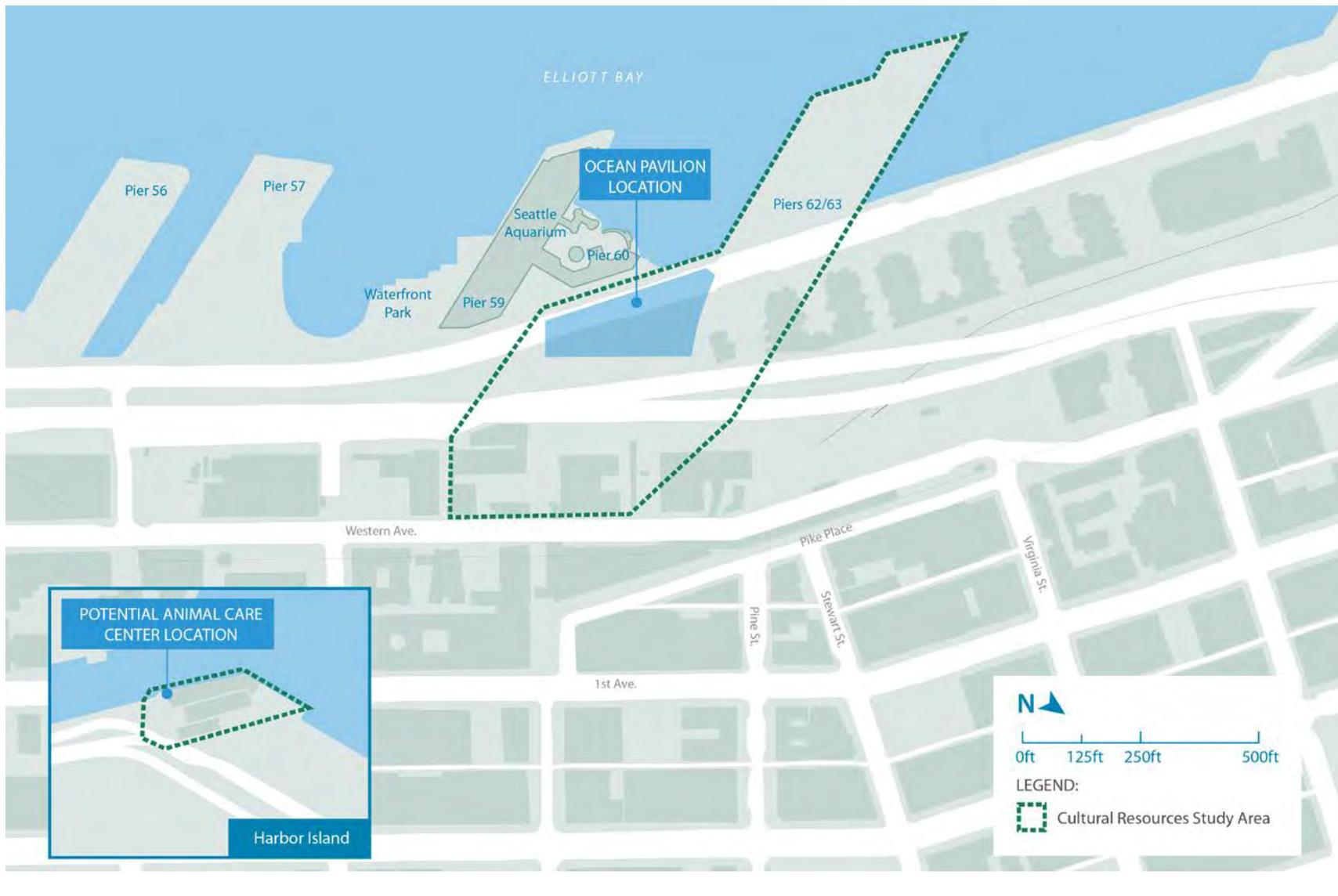
This section provides a summary of the findings contained within Appendix E. Sensitive information on archaeological and tribal resources is exempt from public disclosure requirements and is described only in general terms in this section.

### **3.4.1 Affected Environment**

Cultural resources include archaeological sites and objects as well as historic buildings and traditional tribal properties that have been determined eligible for national, state, or local preservation registers. The study area is defined using SEPA guidelines for cultural resources. It includes the area where project work would occur and a larger area to include indirect potential effects on cultural resources. This includes the geographic scope of potential construction effects from excavation and other ground disturbance, noise, dust, vibration, and changes in access or traffic patterns during construction and operation of the Ocean Pavilion and Animal Care Center. It also accommodates the City Historic Preservation Officer's adjacency review of potential impacts on City of Seattle Landmarks. The historic and archaeological resources study area is shown in Figure 3-4.

#### **3.4.1.1 Ocean Pavilion Location**

The combined footprint of Alternatives 1, 2 and 3 would have been under glacial ice until the late Pleistocene, after which it would have been an upland area due to lower sea levels. Sea levels stabilized around the mid-Holocene, and the bluffs that now host the Belltown neighborhood would have dropped to a narrow beach. The Ocean Pavilion area itself would have been in intertidal and subtidal waters. By the 1880s, this area was likely on piles as part of Railroad Avenue, and then filled by the construction of the Elliott Bay Seawall in 1934, and home to an office building and parking lot since 1947.



**Figure 3-4**  
**Cultural Resources Study Area**

Consistent with this history, previous archaeological and geotechnical coring in the vicinity revealed buried beach deposits between approximately 28 and 40 feet bgs, between Pleistocene till below and historical/modern fill above (Hudson et al. 2013: Figure 5-34). Geotechnical investigations conducted for the Ocean Pavilion alternatives indicate that the buried beach deposits are thicker to the west (nearer the shoreline), and can be expected in the project area between 22 and 32 feet bgs (possibly as deep as 40 feet bgs). The historical/modern fill has limited potential for intact significant archaeological materials, and none will be found in Pleistocene till. Therefore, the buried beach deposits represent the only stratum where there is moderate potential for intact, significant cultural resources.

One archaeological site has been recorded in the study area (but not within an area of ground disturbance): 45K11099, a historic debris scatter, is located in water under Pier 62. Seven other archaeological sites have been recorded within 0.5 mile of the study area. They are primarily historic sites (remnants of structures and debris scatters/concentrations), with the notable exception of a site in Belltown where a shell midden and human remains were found.

Two historic buildings are located within the Ocean Pavilion portion of the study area, the Fix Madore building (1507 Western Avenue) and the Ton of Gold and Sailing of Willapa Site, a historic marker. The Fix Madore building has been determined eligible for listing in the National Register of Historic Places (NRHP). The Ton of Gold marker has been determined eligible for listing in the Washington Heritage Register (WHR). Neither is a designated City of Seattle Landmark.

Pier 62 is in the study area, but it was determined not eligible for listing in the NRHP and is not part of the Central Waterfront Piers Seattle Landmark (Piers 54, 55, 56, 57, and 59). The office building constructed in 1947 is expected to be demolished by the AWVRP.

The Ocean Pavilion portion of the study area is in the traditional territory of the Duwamish, a Southern Coast Salish group speaking the Southern Lushootseed language who lived in villages from Lake Washington to the Black River. No traditional cultural properties have been recorded in the Ocean Pavilion portion of study area. Tribal consultation for the proposed action would occur under SEPA requirements.

### **3.4.1.2 Potential Animal Care Center Location**

The Harbor Island area near the potential site of the proposed Animal Care Center was deeply subtidal in the early Holocene. It was part of an embayment that extended south as far as present-day Auburn. The Duwamish River delta began to aggrade about 5,700 years ago after a large eruption of Mount Rainier. The eruption created the Osceola mudflow, which introduced massive amounts of sediment into the Duwamish drainage and caused the river mouth to move northward as the river valley filled with sediment. The Duwamish River delta was near its historical location by 1,500 to 2,200 years ago, and was a shifting intertidal zone prior to historic land modifications. Dredging of the East and West waterways of the Duwamish River occurred in 1895 to 1905, creating Harbor Island. Due to this history, there is minimal potential for significant archaeological resources to be present in the Harbor Island area.

William P. Fisher began the Fisher Flouring Mill on Harbor Island in 1910. Production and capacity at the mill grew steadily through the twentieth century (with a dip during the Great Depression). In the 1990s, the flour milling operation was moved to Portland, and the building was sold to the Pendleton Flour Mills in

2001. King County purchased the building in 2003 and currently leases the warehouse and office portions; the Animal Care Center may be located in this potentially historic building. Currently, the building is not a City of Seattle Landmark and has not been evaluated for listing in the WHR or NRHP.

The Harbor Island area is also within the traditional territory of the Duwamish. No traditional cultural properties have been recorded in the Harbor Island portion of study area. Tribal consultation for the proposed action would occur under SEPA requirements.

### 3.4.2 Summary of Potential Impacts

The impact indicators for assessing potential impacts on cultural resources are identified in Table 2 of Appendix C, along with the criteria that was used to determine the degree of impact. These indicators can also be used to identify differences between action alternatives and the associated potential impacts, including actions such as ground disturbance in areas with potential for buried archaeological resources; demolition modification of structures; increased noise, vibration, or dust that diminishes the integrity of the building; changes to vehicle or pedestrian access that affect the viability of a building; or impacts on the setting of a historic building. Table 3-7 provides a summary of anticipated construction and long-term impacts for each alternative related to historic and archaeological resources. In general, construction of the Ocean Pavilion under both the action alternatives has some potential to affect historic or archaeological resources. However, in both cases impacts are likely to be minor to moderate. Alternative 2 has slightly more potential to affect archaeological materials than Alternative 3, because the horizontal footprint of the basement is larger (26,100 square feet [0.6 acre] for Alternative 2 versus 17,400 square feet [0.4 acre] for Alternative 3).

**Table 3-7  
Cultural Resources Impacts Summary**

Alternative	During Construction	Long Term
1 (No Action)	<b>No Adverse Impact</b> No construction, therefore no construction impacts	<b>No Adverse Impact</b> No ongoing effects beyond what was previously analyzed in the AWPOW EIS (SDOT 2016b)
2	<b>Minor to Moderate Impacts</b> <ul style="list-style-type: none"> <li>Historic buildings: Potential minor impacts associated with construction noise, dust, and/or access limitations</li> <li>Archaeological sites: Potential moderate impacts associated with excavation in sediment with archaeological potential between 22 to 40 feet bgs; slightly more potential for disturbance than Alternative 3 due to the increased horizontal footprint of the basement (26,100 square feet [0.6 acre])</li> </ul>	<b>No Adverse Impact</b> No ongoing effects
3	<b>Minor to Moderate Impacts</b> <ul style="list-style-type: none"> <li>Historic buildings: Potential minor impacts associated with construction noise, dust, and/or access limitations</li> <li>Archaeological sites: Potential moderate impacts associated with excavation in sediment with archaeological potential between 22 to 40 feet bgs; slightly less potential for disturbance than Alternative 2 due to the reduced horizontal footprint of the basement (17,400 square feet [0.4 acre])</li> </ul>	<b>No Adverse Impact</b> No ongoing effects

### **3.4.3 Construction Impacts and Mitigation Measures**

#### **3.4.3.1 Ocean Pavilion Location**

No construction activities would occur under Alternative 1; therefore, no construction impacts on cultural resources are anticipated.

Potential minor impacts on historic buildings during construction may occur under both action alternatives. Potential impacts on the Fix Madore building could include those typical of large construction projects, such as noise, vibration, and airborne dust. There may be short-term access limitations, traffic congestion, and reduced parking in the study area. These impacts are considered minor because they are not expected to alter or diminish the historic significance or integrity of the property. Mitigation measures would include maintaining access to businesses, communicating with residents, and applying measures developed for other environmental topics, such as controlling noise and dust. No adverse impacts are anticipated on the Ton of Gold and Sailing of Willapa Site, a historic location and marker that would remain in place.

Potential moderate impacts during construction on archaeological resources may occur under both action alternatives due to ground-disturbing activities that may affect archaeological sites or objects. Ground disturbance for Alternative 2 could reach 60 to 80 feet bgs for the building basement and foundation. Under Alternative 3, ground disturbance is expected to extend approximately 40 feet bgs. Open excavation for the basement of the Ocean Pavilion would reach about 20 feet bgs, with 48-foot-diameter piles extending an additional 20 feet beneath the open excavation. The buried beach deposits in between (22 to 40 feet bgs) have moderate potential for archaeological materials. Alternative 2 has slightly more potential to affect archaeological materials than Alternative 3 because the horizontal footprint of the basement is larger.

Mitigation measures to address potential impacts on archaeological materials between 22 to 40 feet bgs during installation of drilled shafts for piles could include preparation of an Archaeological Monitoring Plan to provide monitoring of any sediments between 22 to 40 feet bgs that are safely visible and accessible, if any. An Inadvertent Discovery Plan would be prepared and maintained on-site during construction.

#### **3.4.3.2 Potential Animal Care Center Location**

The build out of the Animal Care Center would not result in any modifications to the exterior of the building, and therefore has no potential to affect the potential historic integrity of the building. No ground disturbance is proposed, so there is no potential to affect archaeological materials.

### **3.4.4 Long-Term Impacts and Mitigation Measures**

The Ocean Pavilion would not operate in, or affect the use of, any historic buildings. The operation of the Animal Care Center would not include any activities that would alter or diminish the Fisher Flour Mill building. No long-term impacts on archaeological sites, historic buildings, or traditional cultural properties are currently anticipated under any of the alternatives; therefore, no mitigation measures are proposed.

## 3.5 Water Quality

This section provides an analysis of potential impacts on water quality from the proposed alternatives. The topography and drainage system surrounding the Ocean Pavilion is expected to be modified by completion of the AWVRP and AWPOW projects, with construction anticipated to begin for these projects in late 2018 and mid-2019, respectively, as of the publication of this Draft EIS. Because the action alternatives are located in an area being modified by the AWPOW projects, this analysis incorporates by reference the AWPOW EIS documents (SDOT 2015a, 2016a, 2016b), including *Appendix J: Water Quality Discipline Report* to the extent practicable (SDOT 2015b).

### 3.5.1 Affected Environment

The study area for water quality includes the footprint of the proposed Ocean Pavilion and extends west to include the saltwater intake/discharge connection with the existing Seattle Aquarium facilities and Piers 59 and 60. The water quality study area is shown in Figure 3-5.

Elliott Bay is a marine waterbody that extends from West Point to the north to Alki Point to the south and is characterized by developed shorelines supporting industrial and commercial activities dating back to the mid-1800s. Elliott Bay is an embayment of Puget Sound, which connects to the Pacific Ocean through the Strait of Juan de Fuca to the northwest and the Strait of Georgia to the north. Puget Sound and Elliott Bay provide habitat for a variety of aquatic and terrestrial species including birds, fish, invertebrates, and marine mammals. Elliott Bay also supports a variety of commercial, industrial, and recreational uses. The Duwamish/Green River is a riverine system to the south of Elliott Bay at Harbor Island and is the primary freshwater input into the bay. The Duwamish/Green River estuary is highly modified by dredging and industrial development since it was dredged and developed in the early-1900s. The area immediately surrounding the study area is developed, and no streams, wetlands, or other surface waters are present.

Ecology is the agency that oversees compliance with Washington State Water Quality Standards. According to WAC 173-201A-612, water quality in Elliott Bay is designated by Ecology as “Excellent” for supporting aquatic life uses and supports uses such as shellfish harvest, recreational uses, and other uses such as wildlife habitat, harvesting, commercial navigation, boating, and aesthetics. The study area is on Ecology’s Clean Water Act 303(d) list as Category 5 for polychlorinated biphenyls (PCBs) and dioxin tissue impairments (Ecology 2016). Category 5 waters are impaired and require a water improvement project under the direction of Ecology.

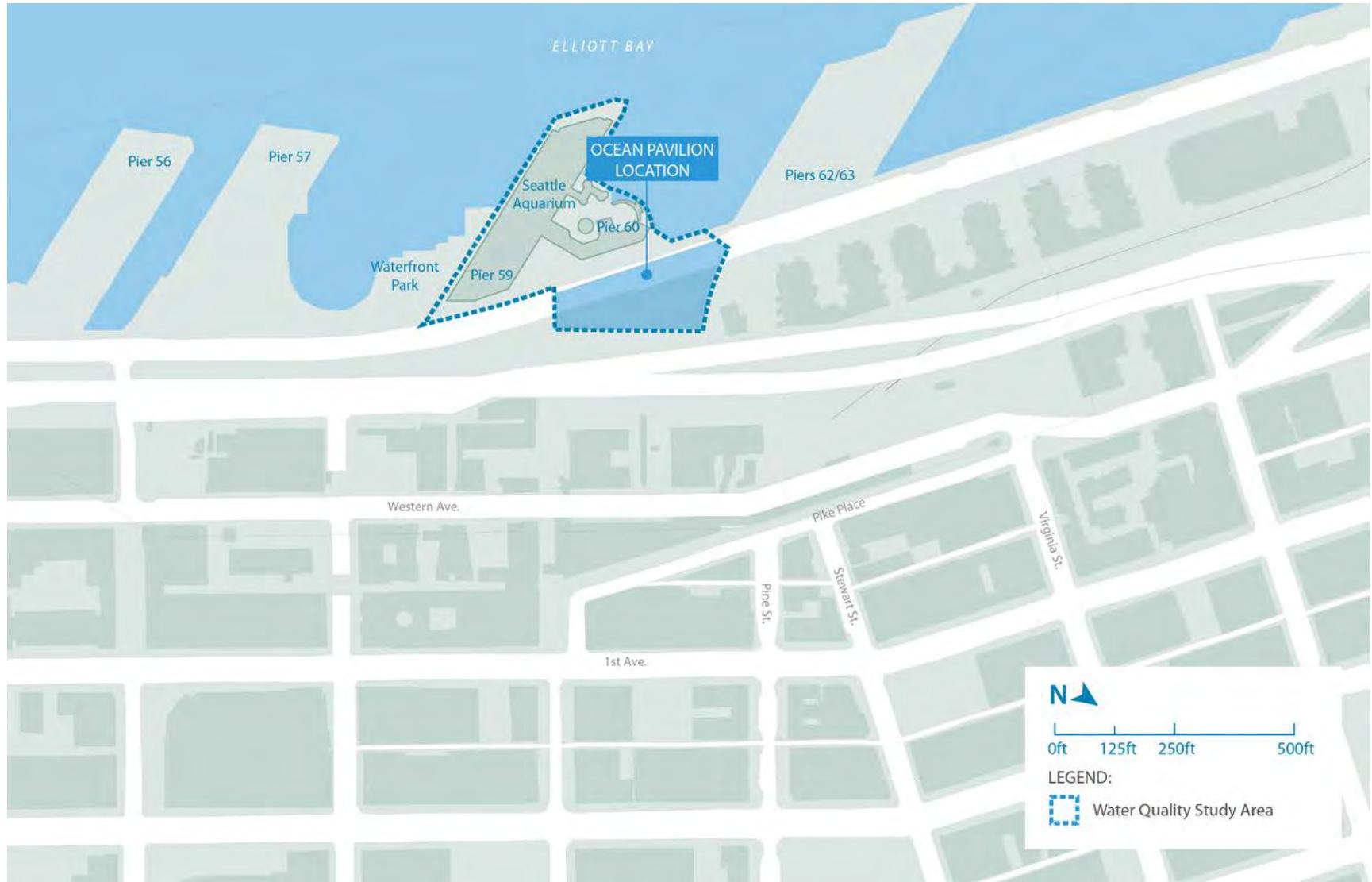
#### Relevant Water Quality Regulations

Ecology administers the Clean Water Act in Washington State, including Impaired Waters and Total Maximum Daily Loads (Section 303(d)), Water Quality Certification for discharge of dredge or fill material (Section 401), and National Pollutant Discharge Elimination System (Section 402). The primary Washington State Water Quality Standards are codified in the state’s Water Pollution Control (RCW 90.48) and Water Quality Standards for Surface Waters of the State of Washington (WAC 173-201A). In the City of Seattle, water quality standards are promulgated under the Stormwater Code (SMC Title 22, Subtitle VIII). Water quality is also protected under the state and local Shoreline Management Act regulations (in RCW 90.58 and SMC 23.60A) and critical areas (in RCW 36.70a and SMC 25.09).

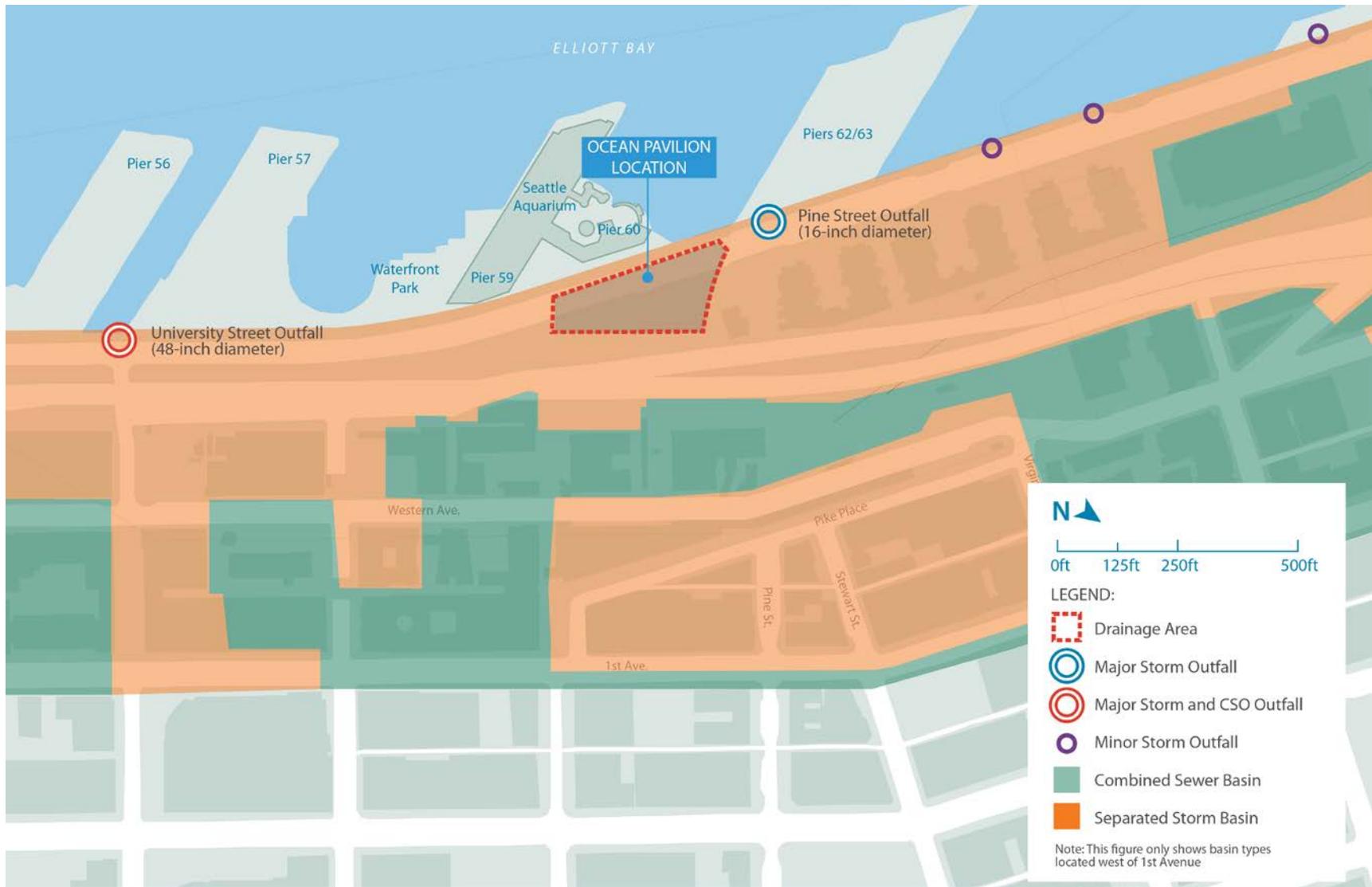
The Seattle central waterfront also contains a network of major storm outfalls, CSOs and other minor storm outfalls that discharge into Elliott Bay. SPU owns the Pine Street 16-inch major storm outfall that discharges just north of Pier 60. Other nearby storm outfalls and CSOs include the University Street major storm and CSO outfall to the south and a network of minor storm outfalls to the north that discharge to Bell Harbor Marina. Water not discharged directly to the outfalls is conveyed to the sanitary sewer system and POTW. Figure 3-6 shows the location of nearby outfalls and associated drainage basin types within the study area.

The AWPOW projects will modify the topography and drainage system, and the area surrounding the Ocean Pavilion would be covered with non-pollutant generating impervious surfaces (NPGIS) or pervious landscaping (SDOT 2016b: page 11-5). Only a small portion to the north and east along the Alaskan Way corridor would be covered in a pollutant generating impervious surface and treated prior to discharging to Elliott Bay (SDOT 2015b: Figure 7-1, page 7-4). Stormwater runoff from the Overlook Walk would be diverted to a separated drain system (SDOT 2016b; page 11-6). Therefore, the drainage area would be limited to the immediate footprint of the Ocean Pavilion as shown in Figure 3-6.

As described in Section 2.6, the Ocean Pavilion would connect to the existing Seattle Aquarium water management system located at Piers 59 and 60 (see Figure 2-4). The existing intake pumping station, located at the southwest corner of Pier 59, includes an intake pump system that extracts saltwater from Elliott Bay at a rate of approximately 2,200 gpm. Saltwater is then circulated through filters and exhibits before discharging back to Elliott Bay at various locations under Piers 59 and 60. Consultation with Ecology previously indicated that a National Pollutant Discharge Elimination System (NPDES) permit would not be required due to demonstrated compliance with Washington State Water Quality Standards per WAC 173-201A (LeVander 2005). Based on ongoing consultation with Ecology, SEAS would obtain an NPDES permit for its existing Seattle Aquarium facilities and future Ocean Pavilion facilities as necessary. Filter return water from marine mammal exhibits and other freshwater filter backwash would be discharged to the sanitary sewer system and POTW.



**Figure 3-5**  
**Water Quality Study Area**



**Figure 3-6**  
**Existing Drainage Areas**

### 3.5.2 Summary of Potential Impacts

The indicators for assessing potential impacts on water quality include stormwater runoff, work in or over water during installation of the pipe connection from the existing Seattle Aquarium to the future Ocean Pavilion, dust or debris entering surface waters, or potential leaks or spills from construction equipment, including the barge or skiffs. The indicators for assessing potential impacts on water quality during operation of the proposed facilities are related to stormwater treatment and saltwater intake and discharge. These potential impacts are classified as minor, moderate, or significant. Table 3-8 provides a summary of anticipated construction and long-term impacts for each alternative related to water quality.

**Table 3-8  
Water Quality Impacts Summary**

Alternative	During Construction	Long Term
1 (No Action)	<b>No Adverse Impact</b> No construction; therefore, no construction impacts	<b>No Adverse Impact</b> No ongoing adverse effects beyond what was previously analyzed in the AWPOW EIS (SDOT 2016b)
2	<b>Minor Impacts</b> Minor impacts anticipated from construction activities including staging, stockpiling, ground-disturbing activities, overwater work, and potential leaks or spills from equipment; BMPs would be implemented to avoid or minimize impacts during construction, including avoiding or minimizing in-water work to the extent practicable	<b>No Adverse Impact</b> No ongoing adverse effects
3	<b>Minor Impacts</b> Same as Alternative 2	<b>No Adverse Impact</b> No ongoing adverse effects

### 3.5.3 Construction Impacts and Mitigation Measures

Under Alternative 1, no construction activities would occur; therefore, no construction impacts on water quality are anticipated.

The Ocean Pavilion would be constructed under the action alternatives, the action alternatives. The extent of construction and ground-disturbing activities is anticipated to be similar for both action alternatives, with more excavation and potential dewatering required under Alternative 2. The duration of excavation and associated stockpile areas for Alternative 2 may be greater than Alternative 3. Construction activities with the potential to affect water quality in Elliott Bay include nearby staging of construction materials, including stockpiles with the potential to release dust or stormwater runoff if not properly controlled; ground-disturbing activities with the potential to release dust or impacted groundwater if improperly dewatered; overwater work including sawcutting and installation of piping with the potential to release dust or debris into surface waters if not properly contained; potential leaks or spills from construction equipment, including the barge or skiffs. It is expected that any stormwater runoff from upland construction activities would be contained by the AWPOW projects’ drainage system and treated prior to

discharge to Elliott Bay. No in-water work is currently proposed and would be avoided or minimized to the extent practicable; no new or modified outfalls are proposed as part of the action alternatives.

The following BMPs would be implemented to avoid or minimize potential impacts on water quality during construction of the action alternatives.

- All applicable permits would be obtained prior to construction. Construction activities would be performed according to the requirements and conditions of these permits.
- Construction activities would be completed in compliance with the City's Stormwater Code (SMC Title 22, Subtitle VIII) and *Stormwater Manual* (City of Seattle 2017b).
- The contractor would be responsible for the preparation of a Spill, Prevention, Control, and Countermeasures Plan to be used for the duration of the project to safeguard against unintentional spills of fuel, lubricants, or hydraulic fluid from construction equipment.
- Erosion control measures would be implemented during construction as part of a Temporary Erosion and Sediment Control Plan prepared for the project.
- No petroleum products, fresh cement, lime or concrete, chemicals, or other toxic or deleterious materials would be allowed to enter surface waters.
- Construction activities would comply with Washington State Water Quality Standards pursuant to WAC 173-201A.
- The contractor would implement dust control measures as needed during construction.

With implementation of BMPs, construction-related impacts associated with the action alternatives are anticipated to be minor. Therefore, no mitigation measures are proposed.

### 3.5.4 *Long-Term Impacts and Mitigation Measures*

Under Alternative 1, the area would be maintained as an open plaza covered with NPGIS, or a similar surface, to accommodate pedestrian traffic. Stormwater would be managed by the AWPOW projects' drainage system and treated prior to discharge to Elliott Bay. Therefore, no long-term impacts on water quality from Alternative 1 are anticipated.

Potential impacts from operation of the Ocean Pavilion are anticipated to be similar for both action alternatives. Under the action alternatives, there would be no increase in impervious surface compared to the No Action Alternative (Alternative 1) and stormwater would be managed by the AWPOW projects' drainage system and treated prior to discharge to Elliott Bay. Saltwater intake and discharges to Elliott Bay at Piers 59 and 60 from the Ocean Pavilion would increase by less than 10% from existing conditions (as described in Section 2.6). SEAS will continue ongoing Ecology consultation and obtain permits as necessary to maintain compliance with Washington State Water Quality Standards per WAC 173-201A. As described in Section 2.6, water that encounters non-native invertebrates and any other water used for maintenance would continue to be discharged to the sanitary sewer and POTW. SEAS will continue consulting with Ecology, King County Wastewater Treatment Division, and SPU to determine the appropriate level of engineering controls required to pre-treat and/or sterilize Ocean Pavilion discharges to the sanitary sewer and POTW. Therefore, no long-term impacts on water quality are anticipated from the action alternatives and no mitigation is proposed.

## 3.6 Fish and Aquatic Resources

This section describes existing fish and aquatic resources occurring in the study area and analyzes the potential construction-related and long-term impacts on these resources by the proposed alternatives. As the action alternatives are within an area being modified by the AWPOW projects, this analysis incorporates by reference the AWPOW EIS documents (SDOT 2015a, 2016a, and 2016b).

### 3.6.1 Affected Environment

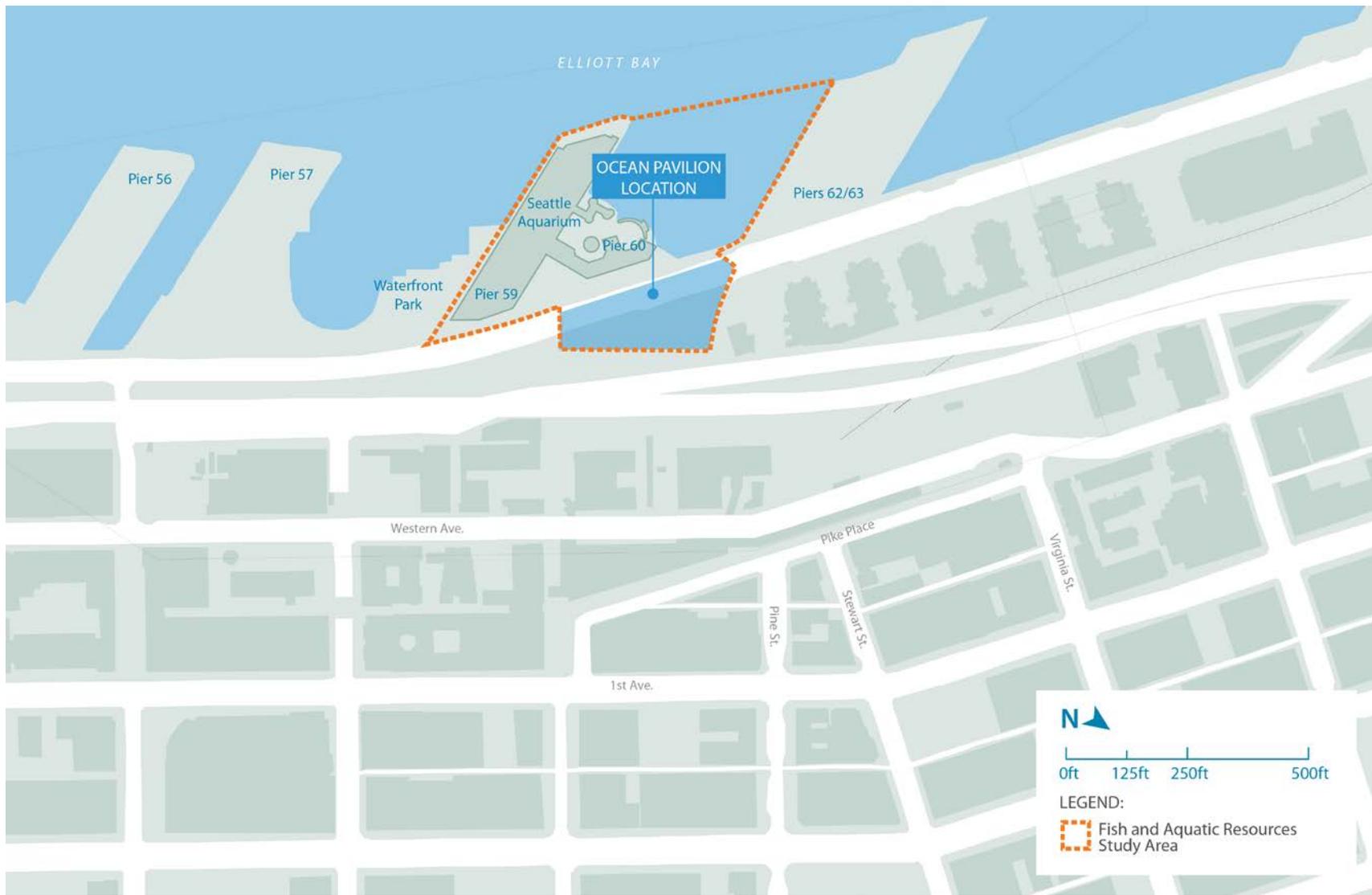
The study area for fish and aquatic resources includes the footprint of the proposed Ocean Pavilion and extends west to include Piers 59 and 60 over Elliott Bay where the connection between the proposed Ocean Pavilion and the existing Seattle Aquarium saltwater intake, filtration, and discharge system would be made. The study area also includes the aquatic area north of Pier 60 where a barge would be temporarily moored during construction (up to 8 weeks). The fish and aquatic resources study area is shown in Figure 3-7.

The study area includes Elliott Bay, a marine waterbody that provides habitat to a variety of fish and aquatic resources. Elliott Bay also supports a variety of commercial, industrial, and recreational uses. The Elliott Bay shoreline also contains a network of major storm outfalls, CSOs, and other minor storm outfalls that discharge into Elliott Bay, as described in Section 3.5.1 and shown on Figure 3-6.

#### **Fish and Aquatic Resources Regulatory Context**

Several federal, state, and local laws and regulations exist to protect fish and aquatic resources. The Endangered Species Act (Section 7(a)(2)) and Marine Mammal Protection Act are federal laws that are intended to conserve and protect listed species and their habitats. State regulations to protect fish and aquatic resources include Water Quality Standards for Surface Waters of the State of Washington (WAC 173-201A), which are intended to ensure the purity of state waters and protect fish and other species that use waters of the state. The State and Protected Species (WAC 220-610) regulations are designed to protect state endangered, threatened, sensitive, or candidate species, or species proposed to be Endangered Species Act-listed. Fish and aquatic resources are also protected under the state and local Shoreline Management Act regulations (in RCW 90.58 and SMC 23.60A) and critical areas (in RCW 36.70a and SMC 25.09).

Elliott Bay provides habitat for several Endangered Species Act-listed fish species including Chinook salmon (*Oncorhynchus tshawytscha*) Puget Sound evolutionarily significant unit (ESU), steelhead (*O. mykiss*) Puget Sound distinct population segment (DPS), bull trout (*Salvelinus confluentus*) Coastal-Puget Sound DPS, bocaccio (*Sebastes paucispinis*) Puget Sound/Georgia Basin DPS, and yelloweye rockfish (*S. ruberrimus*) Puget Sound/Georgia Basin DPS (WSDOT 2018). Other Endangered Species Act-listed species that occur in Elliott Bay include the southern resident killer whale (*Orcinus orca*) and humpback whale (*Megaptera novaeangliae*) (WSDOT 2018). The Washington Department of Fish and Wildlife Priority Habitats and Species list shows additional state candidate fish species occurring in Elliott Bay to include chum salmon (*O. keta*) Puget Sound/Strait of Georgia ESU, sockeye salmon (*O. nerka*), canary rockfish (*S. pinniger*) Puget Sound/Georgia Basin DPS, and Pacific herring (*Clupea pallasii*) (WDFW 2016).



**Figure 3-7**  
**Fish and Aquatic Resources Study Area**

Habitat conditions along the Elliott Bay shoreline are highly modified by development and the area along the Seattle central waterfront is defined by a vertical seawall face and large overwater piers extending to the outer harbor line. The recent replacement of the existing seawall as part of the EBSP provides some habitat opportunities including textured seawall face panels to support macroalgae growth and a 10- to 15-foot-wide habitat bench along the face of the seawall that is elevated to provide intertidal habitat for migrating salmonids. To the north of Pier 60, and between Pier 60 and Piers 62/63, is an intertidal habitat bench extending approximately 80 feet from the seawall face and consisting of modified loose substrate and quarry spalls.

Aquatic vegetation, including species of chlorophyta, phaeophyte, and rhodophyta, is generally present along the nearshore areas of Elliott Bay (Tetra Tech 2012). However, the presence of aquatic vegetation can be affected by overwater structures, waves and currents, substrate type, and nearshore development. Aquatic vegetation within the study area between Pier 60 and Piers 62/63 includes a variety of kelp and other species. Surveys completed for the EBSP indicate patches of bull kelp (*Nereocystis luetkeana*) located in the northern portion between approximately -21 and 2 feet mean lower low water (MLLW); red algae (*Rhodophyta phylum*) between approximately -23 and 2 feet MLLW, sea lettuce (*Ulva fenestrata*) between approximately -13 and 2 feet MLLW, and sugar kelp (*Laminaria saccharina*) between approximately -28 and 2 feet MLLW (SDOT 2011).

### 3.6.2 Summary of Potential Impacts

The indicators for assessing potential impacts on fish and aquatic resources include fish habitat impairment from stormwater runoff, work in or over water during installation of the pipe connection from the existing Seattle Aquarium to the future Ocean Pavilion, dust or debris entering surface waters, potential leaks or spills from construction equipment, including the barge or skiffs, or shading from barge moorage and use. Table 3-9 provides a summary of anticipated construction and long-term impacts for each alternative related to fish and aquatic resources.

**Table 3-9  
Fish and Aquatic Resources Impacts Summary**

Alternative	During Construction	Long Term
1 (No Action)	<b>No Adverse Impact</b> No construction; therefore, no construction impacts	<b>No Adverse Impact</b> No ongoing adverse effects beyond what was previously analyzed in the AWPOW EIS (SDOT 2016b)
2	<b>Minor Impacts</b> Minor impacts anticipated from construction activities including staging, stockpiling, ground-disturbing activities, overwater work, potential leaks or spills from equipment, including barges and skiffs, and shading from barge moorage; BMPs would be implemented to avoid or minimize impacts during construction, including avoiding or minimizing in-water work to the extent practicable	<b>No Adverse Impact</b> No ongoing adverse effects
3	<b>Minor Impacts</b> Same as Alternative 2	<b>No Adverse Impact</b> No ongoing adverse effects

### 3.6.3 *Construction Impacts and Mitigation Measures*

Under Alternative 1, no construction activities would occur; therefore, no adverse impacts on fish and aquatic resources are anticipated.

The Ocean Pavilion would be constructed under the action alternatives, the action alternatives. Construction impacts would be temporary and vary in intensity based on the construction activity. Overall, minor impacts on fish and aquatic resources are anticipated under both action alternatives. Construction activities with the potential to affect fish and aquatic resources in Elliott Bay are similar to those described for water quality in Section 3.5 for staging, stockpiling, ground-disturbing activities, overwater work, and potential leaks or spills from equipment. It is expected that any stormwater runoff from upland construction activities would be contained by the AWPOW projects' drainage system and treated prior to discharge to Elliott Bay. No in-water work is currently proposed and would be avoided or minimized to the extent practicable.

The barge proposed during construction of the Ocean Pavilion is anticipated to be located between Pier 60 and Piers 62/63 for up to 8 weeks. Extended barge moorage has the potential to affect aquatic plant communities in the nearshore environment during the growing season, which generally occurs between late spring and fall (Mumford 2007; SDOT 2013c). Similar to overwater structures, salmonid species would be expected to avoid the shade cast by the barge and stay in unshaded areas between the piers (Anchor QEA 2012). The barge would be located outside of the intertidal and habitat areas provided by the EBSP to avoid potential impacts on fish use and habitat. Therefore, minor impacts on fish or fish use of the area are anticipated from barge use in the area.

In addition to those BMPs described in Section 3.5.2, the following BMPs would be implemented during construction of the action alternatives to avoid or minimize potential impacts on fish and aquatic resources:

- The barge would not be allowed to ground out during construction.
- The barge would be located to avoid potential impacts on the EBSP habitat bench and other habitat features between Pier 60 and Piers 62/63.
- The barge would be used outside of the growing season for macroalgae to the extent practicable and moored at depths greater than -20 feet MLLW when not in use to minimize potential impacts on aquatic vegetation.

With implementation of the BMPs, construction-related impacts associated with the action alternatives are anticipated to be minor. Therefore, no mitigation measures are proposed.

### 3.6.4 *Long-Term Impacts and Mitigation Measures*

No long-term impacts on fish and aquatic resources from Alternative 1 are anticipated beyond what was previously analyzed in the AWPOW EIS (SDOT 2016b).

Potential long-term impacts from operation of the Ocean Pavilion are anticipated to be commensurate for the action alternatives. Under the action alternatives, the minor increase in saltwater intake and discharges to Elliott Bay at Piers 59 and 60 would occur as described in Section 2.6. Similar to the analysis in Section 3.5.3, no long-term impacts on fish and aquatic resources from the minor increase in intake and discharges for the Ocean Pavilion are anticipated from the action alternatives, and no mitigation is proposed.



## 4 Cumulative Effects

This section describes how the effects of the proposed action may contribute to the environmental effects of other past, present, and reasonably foreseeable future actions. Cumulative effects are those that could result in the combination of effects from individual project actions occurring over time. If left unmitigated, the cumulative or incremental effects of these actions have the potential to result in significant environmental impacts. This analysis is also helpful for decision-makers evaluating the sustainability of a proposed action and how it may interact with other projects that are reasonably foreseeable but have not yet been built.

The following section describes the methodology, reasonably foreseeable future projects and consistency with SMC 25.05.670, and the potential cumulative effects of each element of the environment evaluated in this Draft EIS.

### **Cumulative Effects Regulatory Context**

The term “cumulative impacts” is defined in 40 CFR 1508.7 as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.”

SEPA requires a range of impacts to be evaluated as part of environmental review including direct, indirect, and cumulative impacts and associated mitigation measures per WAC 197-11-060 and 197-11-792. The City of Seattle requires the environmental review to include an analysis of cumulative effects of present, simultaneous, and known future actions on public facilities, public services, and natural systems per SMC 25.05.670.

## 4.1 Methodology

In order to address the potential for cumulative effects, the direct and indirect impacts of the EIS alternatives, as described in Section 3, were further evaluated in the context of other past, present, or reasonably foreseeable future projects. This analysis was completed for those elements of the environment, for which potential environmental effects may occur as determined by Seattle Parks and Recreation and SEAS, and refined during the scoping process. The study area used to address direct and indirect effects for each element of the environment in Section 3 was also used in the cumulative effects analysis, because it represents the area where the proposed action, in combination with other past, present, or reasonably foreseeable future development, could potentially result in cumulative impacts.

Past, present, and reasonably foreseeable future projects were identified using a variety of resources, including reviewing proposed infrastructure projects proposed along the Seattle central waterfront in coordination with the City's Office of the Waterfront and Civic Projects and performing web searches through resources such as the City's Department of Construction and Inspections database. The following includes an analysis of the cumulative effects of these reasonably foreseeable future projects and actions together with the direct and indirect impacts of the proposed action.

The methodology is designed to be consistent with the Cumulative Effects Policy per SMC 25.05.670, SEPA per RCW 43-21C, and SEPA Rules per WAC 197-11-060 and 197-11-792.

## 4.2 Past, Present and Reasonably Foreseeable Future Projects

As described in Section 1.2, the proposed action is located within the Seattle central waterfront and in the vicinity of several important infrastructure projects that are transforming the area, including the AWVRP and Waterfront Seattle projects such as the Pike Place MarketFront, EBSP, Piers 62/63 Rebuild, AWPOW projects, Pike Pine Renaissance Act One, and the Waterfront Park Rebuild. Other projects include the WSF Seattle Multimodal Terminal at Colman Dock Project and SPU Vine Basin CSO Control Project. There are also a variety of planned commercial and residential developments proposed downtown and within the Seattle central waterfront. These planned developments are in various stages of planning from Design Commission approval to building permits issued. These reasonably foreseeable future projects and actions occurring near the study area are shown on Figure 4-1.



- 1 Alaskan Way, Promenade, and Overlook Walk Projects
- 2 Alaskan Way Viaduct Replacement Program
- 3 Elliott Bay Seawall Project: Central Seawall
- 4 Elliott Bay Seawall Project: North Seawall
- 5 Pier 62/63 Rebuild

- 6 Pike Pine Renaissance: Act One
- 7 Waterfront Park Rebuild
- 8 Seattle Multimodal Terminal at Colman Dock Project
- 9 Vine Basin Combined Sewer Overflow Control Project

- Local Building Projects
- Mixed Use/Residential less than 20 stories
  - Mixed Use/Residential greater than 20 stories
  - Retail/Office less than 20 stories
  - Retail/Office greater than 20 stories



**Figure 4-1**  
Reasonably Foreseeable Future Projects and Actions in the Vicinity of the Proposed Action

Construction of the Ocean Pavilion would take approximately 24 months to complete and is anticipated to occur in 2021-2023. Some early Ocean Pavilion foundation work may occur prior to that timeframe, in coordination with the AWPOW projects, and would take approximately 4 months to complete. There is a likelihood that construction of the Ocean Pavilion could overlap with present, simultaneous, and future infrastructure projects within or near the Seattle central waterfront.

Construction of past, present, and reasonably foreseeable future infrastructure projects is estimated to occur at the following times:

- AWVRP: 2018-2019
- AWPOW: 2019-2023
- Pike Place MarketFront: *Completed in 2017*
- EBSP (Central Seawall): 2018-2019
- EBSP (North Seawall): *On hold*
- Piers 62/63 Rebuild: 2018-2020
- Pike Pine Renaissance: Act One: 2019-2022
- Waterfront Park Rebuild: 2021-2024
- Seattle Multimodal Terminal at Colman Dock: 2018-2023
- Vine Basin CSO Control Project: 2019-2025

Each of these projects are required to conduct a separate, project-specific SEPA environmental review, as appropriate. It is anticipated that mitigation measures implemented for each project would decrease the potential for cumulative adverse effects on the environment.

Preparing the Animal Care Center would take approximately 9 months, and construction is anticipated around 2019-2020. This work is not expected to contribute to any cumulative effects because the analysis of impacts on elements of the environment in Section 3 indicates that no construction or long-term impacts from the Animal Care Center are anticipated.

In these cases, there is a potential for a cumulative impact, but the impact would only be during construction and would be temporary for the duration of the construction activity.

### **4.3 Consistency with Seattle Municipal Code**

SMC 25.05.670 calls for an analysis of cumulative effects of prior, simultaneous, and known future actions on public facilities, public services, and natural systems.

#### **4.3.1.1 Public Facilities**

The present and planned capacity of public facilities were considered in the transportation and water quality analyses for the proposed action. The proposed action, along with other simultaneous projects, is anticipated to have temporary minor cumulative impacts on transportation and parking and water quality during construction, but no long-term cumulative impacts. Through its Street Use Permit process and consistent with SMC 15.32.050, SDOT would coordinate the construction needs and impacts of this project with the other infrastructure and development projects in the study area, including potential overlapping

elements of the AWPOW projects' construction. SEAS would participate in construction coordination processes that SDOT establishes for major projects. With this mitigation, no significant adverse cumulative effects from construction of the proposed action are anticipated.

Overall, transportation and parking within the study area would be improved by the AWPOW projects and would further the goals of regional and local land use and transportation plans (SDOT 2016b). It is also anticipated that there would be adequate long-term parking within the study area to accommodate the Ocean Pavilion and other simultaneous and planned projects. It is expected that the City would continue to assess parking needs and require parking be provided, as needed, for future development. Therefore, it is anticipated that there would be no cumulative effects from operation of the proposed action on transportation and parking.

The Ocean Pavilion would result in a minor increase in discharges to the sanitary sewer and POTW as described in Section 2.6. SEAS would continue to coordinate with Ecology, King County Wastewater Treatment Division, and SPU to comply with applicable standards and ensure that the proposed action is coordinated with other present, simultaneous, and future known projects. Therefore, no cumulative effects on sewers are anticipated from the proposed action.

No cumulative effects on storm drains, solid waste disposal, parks, schools, or utilities are anticipated from the proposed action.

#### **4.3.1.2 Public Services**

The proposed action would have no cumulative effects on present and planned public services including transit, health, police and fire protection, and social services. As described in Section 3.1, downtown Seattle is the largest transit hub in the region; the waterfront area is served by light rail, streetcar, commuter rail, ferry, water taxi, and dozens of local, regional, and RapidRide bus routes provided by Metro, Sound Transit, Community Transit, and Pierce Transit. Therefore, it is expected that there would be adequate transit capacity to accommodate planned and future development in the area. Additionally, the AWPOW projects are anticipated to have a beneficial effect on access to the Seattle central waterfront by health, police and fire protection, and social services due to improvements to the Alaskan Way and Elliott Way improvements (SDOT 2016b).

#### **4.3.1.3 Natural Systems**

The capacity of natural systems to absorb the effects of the proposed action were considered in the water quality and fish and aquatic resource analyses in Section 3. The proposed action, along with other present, simultaneous, and future known projects, is anticipated to have minor temporary cumulative effects on natural systems during construction. As described in the AWPOW EIS, a variety of construction activities, including earthwork, stockpiling, material transport, utility work (including storm drains), and operation of heavy construction equipment have the potential to affect waters in Elliott Bay (SDOT 2016b: Section 15.11). Mitigation measures and BMPs described in Section 3 would be implemented to minimize potential individual and cumulative impacts on natural systems, including air, water, light, and land, during construction.

No cumulative effects on natural systems are anticipated from operation of the proposed action. As described in Section 2.6, the proposed action would not contribute to an increase in impervious surfaces

within the study area, and stormwater would be improved and managed by the City under the AWPOW projects. Saltwater intake and discharges to Elliott Bay at Piers 59 and 60 from the Ocean Pavilion would increase by less than 10% from existing conditions. SEAS would continue ongoing Ecology consultation and obtain permits if necessary to maintain compliance with Washington State Water Quality Standards per WAC 173-201A. As described in Section 2.6, water that encounters non-native invertebrates and any other water used for maintenance would continue to be discharged to the sanitary sewer and POTW. SEAS would also continue consulting with Ecology, King County Wastewater Treatment Division, and SPU to determine the appropriate level of engineering controls required to pre-treat and/or sterilize Ocean Pavilion discharges to the sanitary sewer and POTW. This coordination would also ensure that the proposed action is coordinated with other present, simultaneous, and future known projects. Therefore, no cumulative operational impacts on water quality are anticipated from the action alternatives, and no mitigation is proposed.

#### **4.4 Transportation and Parking**

There may be minor temporary cumulative construction effects on transportation and parking as described in Section 3.1. The AWPOW EIS identifies other planned and programmed projects with construction activities that could potentially overlap. These projects would be coordinated through the SDOT Street Use Permit process, as described in Section 4.3.1.1, which would mitigate for potential impacts on transportation and parking. With this mitigation, no significant adverse cumulative effects from construction of the proposed action are anticipated.

The transportation and parking analysis in this EIS builds on the AWPOW EIS, which included additional background traffic forecasted to result from regional development growth through 2030, and incorporates planned future actions and growth. No cumulative effects on public facilities related to transportation or parking are anticipated during operation of the proposed action.

#### **4.5 Land Use**

A number of projects are expected to be completed before and during the construction and operation of the Ocean Pavilion as described previously. For most of the reasonably foreseeable future projects and actions, temporary construction impacts are anticipated. These are primarily due to temporary changes in access and use during construction. While there may be minor temporary cumulative effects on access and transportation and parking, these would be mitigated through avoidance and minimization measures as described Section 3.1. However, SDOT manages transportation and access through its Street Use Permit process to avoid or minimize impacts from projects constructed simultaneously or sequentially. With this mitigation, no significant adverse cumulative effects on land use from construction of the proposed action are anticipated.

The proposed action is consistent with land use goals and policies and planned future development. Additionally, none of the reasonably foreseeable future projects or actions have been identified as having long-term adverse impacts on land use. Most would be beneficial, increasing pedestrian and bicycle connectivity, promoting public use of and access to the waterfront, and protecting the environment. Because no moderate or significant long-term impacts are anticipated from any of the action alternatives

and no long-term impacts have been identified for other reasonably foreseeable projects, no long-term cumulative impacts are anticipated from the proposed action and no mitigation measures are proposed.

#### **4.6 Aesthetics and Scenic Resources**

There are multiple projects that could be near or built at the same time as the Ocean Pavilion, as described in Section 4.2. These projects would contribute additional minor temporary construction effects on aesthetics and scenic resources. The City's urban design goals and policies for the waterfront and downtown areas would be enforced through Design Commission review and the AWPOW projects, Piers 62/63 Rebuild, Waterfront Park, and CSO reduction projects in particular would contribute to an enhancement of visual resources when completed. No long-term cumulative effects are anticipated from the proposed action and no mitigation measures are proposed.

#### **4.7 Historic and Archaeological Resources**

The proposed action is anticipated to have minor to moderate impacts on historic and archaeological resources during construction within the footprint or immediate vicinity of the Ocean Pavilion site. No long-term impacts or cumulative effects are anticipated.

#### **4.8 Water Quality**

Minor cumulative effects on water quality from construction are anticipated. With the proposed avoidance, minimization, and mitigation measures described in Sections 3.1 through 3.6, no moderate or significant adverse cumulative effects from construction on water quality are anticipated from the proposed action.

The proposed action is anticipated to have no cumulative effects from operation on water quality and no mitigation is proposed. The proposed action would not contribute to an increase in impervious surfaces within the study area, and stormwater would be improved and managed by the City under the AWPOW projects. Additionally, saltwater intake and discharges to Elliott Bay at Piers 59 and 60 from the Ocean Pavilion would be coordinated with Ecology, King County Wastewater Treatment Division, and SPU to ensure that the proposed action is compliant with Washington State Water Quality Standards per WAC 173-201A and coordinated with other present, simultaneous, and future known projects.

#### **4.9 Fish and Aquatic Resources**

Minor cumulative effects on natural systems, including Elliott Bay waters that host a variety of fish and aquatic resources, from construction are anticipated. With the proposed avoidance, minimization, and mitigation measures described in Sections 3.1 through 3.6, no moderate or significant adverse cumulative effects from construction on fish and aquatic resources are anticipated from the proposed action.

Potential impacts on fish and aquatic resources are anticipated from impacts on water quality from the proposed action and other present, simultaneous, and future known projects. Therefore, similar to Section 4.8, the proposed action is anticipated to have no cumulative effects from operation on fish and aquatic resources and no mitigation is proposed.



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All photographs courtesy of Seattle Aquarium Society unless otherwise noted.

### Seattle Aquarium Timeline (pages 4 and 5):

Since opening in 1977, the Seattle Aquarium has participated in several planning efforts to improve and expand marine exhibits and conservation education while considering ongoing transformations along the waterfront.

**1 Central Waterfront Master Plan**  
As the first major effort for expansion of the Seattle Aquarium, the 1994 Master Plan included options to integrate Waterfront Park with the Seattle Aquarium and expand the Seattle Aquarium overwater, with a connection to Pier 62/63. The Seattle City Council approved the plan in 1997 for further planning and development.

**2 Central Waterfront Parks Master Plan**  
Seattle Parks and Recreation issued a Draft EIS in 2006 for the Central Waterfront Master Parks Plan that evaluated a No Action Alternative and four build alternatives. The alternatives for expansion in the Draft EIS looked similar to the 2001 design concept, showing modifications with modern wings on both the north and south sides of Pier 59. These design alternatives were not carried forward to a Final EIS.

**3 Expansion Master Plan**  
Following extensive stakeholder outreach and planning sessions, SEAS published A Master Plan for Expansion in 2015, including design concepts for renovating Pier 59, renovating and expanding Pier 60, creating a major new exhibit building, and connectors to an improved public waterfront. The plan was designed to align with the City of Seattle's future Overlook Walk and proposed pedestrian improvements.

**4 Pier 62/63 Expansion Design Concepts**  
A new Seattle Aquarium building was proposed in 2000 on Pier 62/63—the design included creating an open basin and multistory facility. Community concerns over impacts to water views led to a revised plan focused on Pier 59 modifications with wings on the north and south sides of the pier. Neither design was carried forward as the City's finances focused on the Nisqually earthquake response.

**5 Pier 59 Improvements**  
Substantial maintenance and improvements were completed at the Seattle Aquarium on Pier 59 in 2007. Nearly 800 derelict piles were replaced and 18,000 square feet of new space was added to the facility that included a new entrance, flexible entry hall and gathering space, and the 120,000-gallon Window on Washington Waters exhibit.

**6 Concept Design Planning**  
SEAS began early visual concepts of expansion locations to the north and south of Pier 59 in 2012. The upland expansion and integration of the Seattle Aquarium into the City's proposed Overlook Walk was incorporated into the Waterfront Seattle Framework Plan for the Central Waterfront Committee.

**Aquarium Operations**  
In 2010, the nonprofit Seattle Aquarium Society (SEAS) assumed management of the Seattle Aquarium under an operations and maintenance agreement with the City of Seattle, which identified a master plan process to guide future improvements, long-range capital projects, and potential future expansion.

**Strategic Plan**  
SEAS published the Seattle Aquarium Strategic Plan 2011-2030, providing goals and strategies for targeted growth over the next 20 years. The plan's facilities outlook included expanding beyond Piers 58 and 60 to provide for new programming and visitor capacity, consistent with the City's Central Waterfront design.

**Renovated Harbor Seal Exhibit Opens**  
Seattle Aquarium opened the renovated harbor seal exhibit in 2013, the first step in the 20-year strategic plan.

**Pier 60 Improvements**  
On the larger pier of Pier 60, the Seattle Aquarium replaced approximately 160 creosote-treated timber pilings with 35 steel piles and timber decking with concrete decking in 2014.

**Office of the Waterfront Ordinance**  
In 2017, the City of Seattle Office of the Waterfront passed an ordinance (which was an amendment to the 2013 Memorandum of Understanding) to continue a cost-share agreement through the completion of the Aquarium Expansion Project, known as the "Ocean Pavilion," as a key element of the Waterfront Seattle vision, confirming the close coordination between Waterfront Seattle projects and the separate and independent Seattle Aquarium expansion efforts.

Seattle Aquarium Timeline

- 1 City of Seattle
- 2 Terry Farrell and Partners
- 3 Seattle Aquarium Society
- 4 Terry Farrell and Partners
- 5 Seattle Aquarium Society
- 6 Mithun



## 6 List of Preparers

Name and Employer	Degree and Relevant Licenses	Relevant Years of Experience
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<b>SEATTLE AQUARIUM SOCIETY</b>		
<b>Susan Bullerdick, Ph.D.</b> Project Director	<ul style="list-style-type: none"> <li>• Ph.D., University of Minnesota-Twin Cities</li> <li>• M.S., Michigan State University</li> </ul>	18
<b>CONSULTANT TEAM</b>		
<b>Heather Page</b> Project Manager and EIS Reviewer Anchor QEA	<ul style="list-style-type: none"> <li>• Certificate, Environmental Law and Regulation, University of Washington</li> <li>• B.A., English, University of Washington</li> </ul>	15
<b>Ann Costanza</b> EIS Manager Anchor QEA	<ul style="list-style-type: none"> <li>• M.F.R., Forest Resources, University of Washington</li> <li>• B.S., Forest Resources, University of Washington</li> </ul>	26
<b>Josh Jensen</b> Assistant Project Manager and EIS Author Water Quality Author Fish and Aquatic Resources Author Anchor QEA	<ul style="list-style-type: none"> <li>• Certificate, Environmental Law and Regulation, University of Washington</li> <li>• M.E.M., Environmental Management, Duke University</li> <li>• B.A., Economics and Environmental Studies, Western Washington University</li> </ul>	10

<b>Aileen Manley</b> Technical Editor Anchor QEA	<ul style="list-style-type: none"> <li>• B.S., Psychology, California Polytechnic State University</li> </ul>	18
<b>Zheng Fang</b> Graphic Designer Anchor QEA	<ul style="list-style-type: none"> <li>• B.S., Product Design, Ohio State University</li> </ul>	13
<b>Transportation and Parking</b>		
<b>Jennifer Barnes</b> Transportation and Parking Author Heffron Transportation	<ul style="list-style-type: none"> <li>• M.S., Civil Engineering/Transportation, University of Washington</li> <li>• B.S., Civil Engineering, Iowa State University</li> <li>• Professional Civil Engineer State of Washington</li> </ul>	25
<b>Land Use and Historic and Archaeological Resources</b>		
<b>Barbara Bundy, Ph.D., RPA</b> Historic and Archaeological Resources and Land Use Author Anchor QEA	<ul style="list-style-type: none"> <li>• Ph.D., Anthropology, University of Oregon</li> <li>• M.A., Anthropology, University of Arkansas</li> <li>• B.A., Anthropology, University of Oregon</li> <li>• Register of Professional Archaeologists</li> </ul>	21
<b>Aesthetics and Scenic Resources</b>		
<b>Betsy Severtsen</b> Aesthetics and Scenic Resources Author Anchor QEA	<ul style="list-style-type: none"> <li>• M.L.A., Landscape Architecture, University of Washington</li> <li>• M.S., Natural Resources, University of Michigan</li> <li>• B.A., Geography, University of Washington</li> <li>• Registered Landscape Architect</li> </ul>	11

Appendix A  
Scoping Summary Report

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June 2018

Seattle Aquarium Ocean Pavilion

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## SEPA EIS Scoping Summary Report

**Prepared for**

City of Seattle Department of Parks and Recreation  
Seattle Aquarium Society

**Prepared by**

Anchor QEA, LLC

## Introduction

The City of Seattle Department of Parks and Recreation (Seattle Parks and Recreation), in coordination with the Seattle Aquarium Society (SEAS), is preparing a State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) to evaluate the Seattle Aquarium Ocean Pavilion (herein referred to as “Ocean Pavilion”), which includes two different building options located near the existing aquarium at Pier 59 along the Seattle waterfront and a proposed off-site Animal Care Center that would be established at the former Fisher Flour Mill on Harbor Island or a similar location.

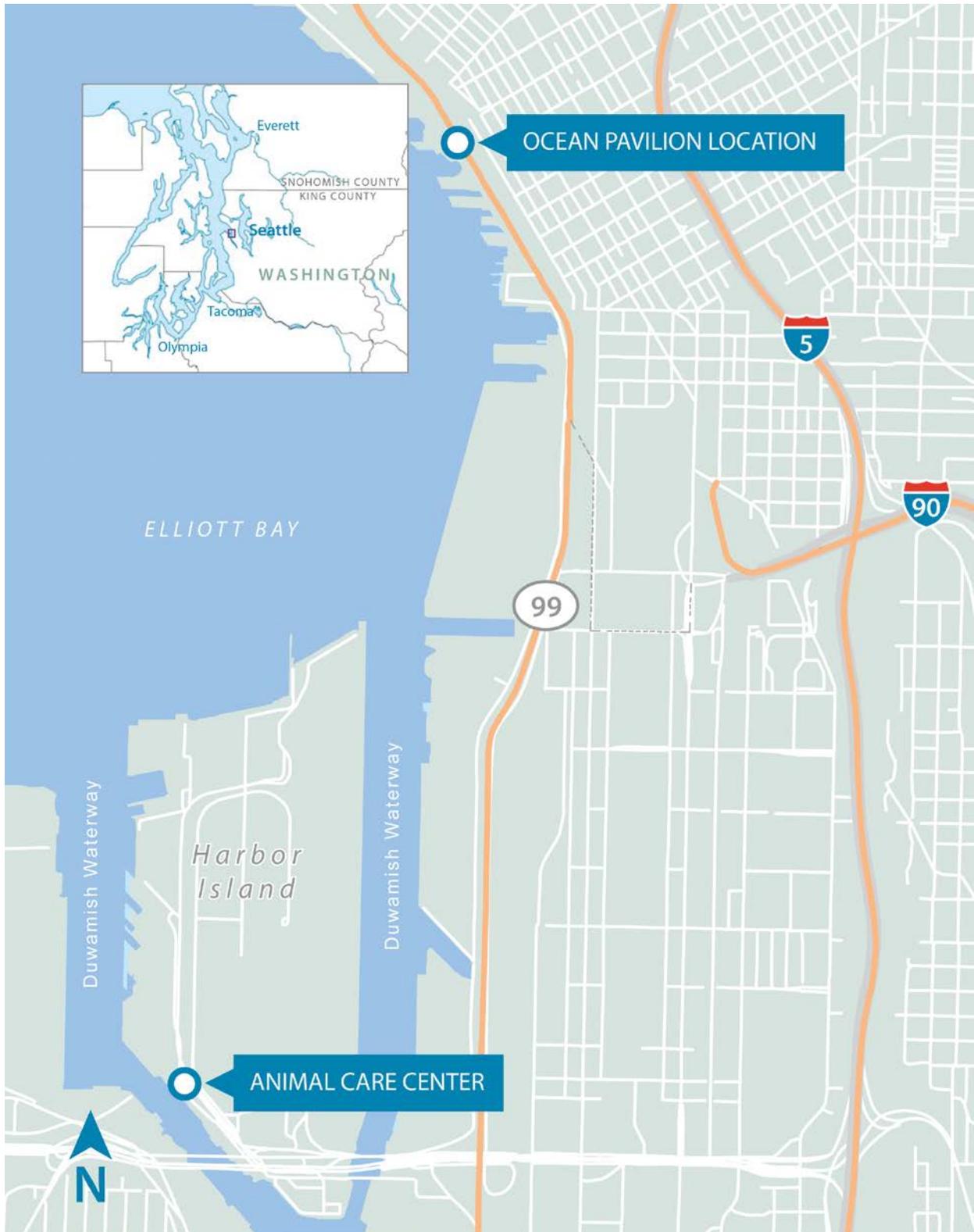
A Determination of Significance and Scoping Notice for the EIS was published by Seattle Parks and Recreation on May 7, 2018, which initiated the environmental review process. The scoping period ended on May 28, 2018, and included one public scoping meeting on May 24, 2018.

This report provides an overview of the proposed action and preliminary alternatives considered, followed by a summary of the scoping process and comments received. Also included in this report are the notices, news releases, and meeting materials. No comments were received during the scoping comment period.

## Proposed Action

The Ocean Pavilion would be located in Seattle, King County, Washington. The proposed action would create a new building to the east of the existing aquarium, which is located on Piers 59 and 60 and east of the future Waterfront Promenade. The proposed building would be adjacent to the City of Seattle’s future Overlook Walk, enhancing the pedestrian experience between the waterfront and Pike Place Market, and would include approximately 48,000 gross square feet of public aquarium exhibits and associated support space. The proposed action would also include an off-site Animal Care Center to address both short- and long-term animal care, veterinary, and rehabilitation needs. The off-site Animal Care Center would be located at the former Fisher Flour Mill on Harbor Island in Seattle or a similar location.

The location of the proposed action is shown in Figure 1.



**Figure 1-1**  
**Vicinity Map**

## Objectives

The following objectives of the Ocean Pavilion will be used as the basis for evaluating the alternatives:

- Accommodate a 40% increase in expected attendance and visitors, which requires an approximately 48,000-square-foot building and multimodal pathways
- Provide a continuous connection with the existing Seattle Aquarium to facilitate movement of visitors, volunteers, and staff, and to support Aquarium programming
- Provide opportunities for public open space and enjoyment of the shoreline
- Create a space that supports the Aquarium's mission of *Inspiring Conservation of Our Marine Environment* and provides the public with a global ocean experience

## Preliminary Alternatives

Three alternatives have been developed for the Ocean Pavilion: a No Action Alternative and two action alternatives. All of the alternatives evaluated in the EIS are based on the expected conditions in 2030.

The No Action Alternative is intended to represent the most likely future expected in the absence of implementing the proposed action alternative. Under the No Action Alternative, the Seattle Aquarium Ocean Pavilion would not be built. However, conditions in the area would be different from those that exist at the time this EIS is published (2018). The No Action Alternative serves as the baseline against which the potential impacts of the action alternatives are evaluated.

Alternative 2 includes the Ocean Pavilion design evaluated as part of the preferred alternative under the Alaskan Way, Promenade, and Overlook Walk (AWPOW) EIS (referred to as the "Aquarium Pavilion" in the AWPOW EIS; SDOT 2016). Alternative 3 includes building the Ocean Pavilion east of the future Waterfront Promenade, located farther south than Alternative 2 to accommodate better connections to the existing Aquarium facilities.

## Scoping Process

### *SEPA Scoping Requirements and Purpose*

The purpose of scoping is to establish and confirm the focus of the EIS by seeking input from agencies, tribal governments, and members of the public on the content and emphasis (scope) of the EIS. Scoping also provides notice to agencies and the public that an EIS is being prepared and initiates their involvement in the process.

Seattle Parks and Recreation and SEAS conducted a scoping period from May 7 to May 28, 2018, in accordance with SEPA requirements per Washington Administrative Code 197-11-408 and Seattle Municipal Code 25.05.408. SEAS and Seattle Parks and Recreation invited agencies, tribal governments, and members of the public to provide input on the EIS scope relating to the objectives, range of alternatives, probable significant adverse impacts, and elements of the affected environment to be analyzed in the EIS.

The following elements of the environment were identified in scoping materials as preliminarily proposed for discussion in the EIS:

- Transportation
- Construction
- Water quality
- Land use
- Public view protection
- Historic and archaeological resources

### *Determination of Significance and Scoping Notice*

Scoping under SEPA began with the issuance and publication of a Determination of Significance and Scoping Notice. The Scoping Notice included a description and location of the proposal and scope of elements of the environment to be considered in the EIS. The Scoping Notice also announced public scoping meeting dates and the duration of the scoping comment period.

This Scoping Notice initiated the request for public comments and was distributed via multiple publication outlets, described herein. The following attachments include the publication records establishing the SEPA scoping process:

- Attachment 1: SEPA Determination of Significance and Scoping Notice
- Attachment 2: City of Seattle Department of Construction and Inspections (SDCI) Land Use Information Bulletin (LUIB) Public Notice
- Attachment 3: Washington State Department of Ecology (Ecology) SEPA Register Notice
- Attachment 4: Seattle *Daily Journal of Commerce* (DJC) Legal Notices

### *Outreach Summary Timeline*

Seattle Parks and Recreation and SEAS conducted the following outreach activities to notify agencies, tribal governments, and members of the public of the scoping comment period and to announce the public scoping meeting date:

- The **Determination of Significance and Scoping Notice**, including scoping meeting announcements, was published in SDCI's LUIB and Ecology's SEPA register on May 7, 2018 (see Attachments 1 through 3)
- The **legal notice** was placed in the Seattle DJC on May 7, 2018, and a correction was placed on May 15, 2018, to correct the public scoping meeting date, which was incorrectly advertised as *Tuesday* instead of *Thursday*, May 24, 2018 (see Attachment 4)
- An **email** containing the scoping notice was sent to agencies, tribes, and stakeholders on May 7, 2018 (see Attachment 5)
- A public scoping meeting announcement was posted on the SEAS **website** (<https://www.seattleaquarium.org/planning>) on May 7, 2018, and included the time and location of the public scoping meeting and instructions on how to provide comments

- **Adjacent property owner outreach** was also conducted, including meetings with Waterfront Landings' residents on May 27, 2018, and a representative from the Fix Madore building on May 9, 2018

### *Public Scoping Meeting*

A public scoping meeting was held from 5:00 p.m. to 7:00 p.m. on May 24, 2018, near the project area at the Friends of Waterfront Seattle Waterfront Space at 1400 Western Avenue in Seattle, Washington. The meeting opened with a 15-minute presentation, including a question-and-discussion period, followed by an open house. The presentation outlined SEAS' mission, environmental review process, proposed action, and objectives and preliminary alternatives considered. The public had an opportunity to provide formal public comment at the meeting by written comment cards or oral comments to a court reporter.

The SEAS website (<https://www.seattleaquarium.org/planning>) was also developed at the onset of the scoping period to provide information on the proposal and allow online scoping comments to be submitted. The website will be maintained and updated throughout the environmental review process.

Staff from SEAS, Seattle Parks and Recreation, and the consultant team were available throughout the open house portion of the scoping meeting to discuss the proposal and answer questions from the public. Display boards were provided to show the environmental review process, proposed action alternatives, and anticipated project schedule.

The following materials from the scoping process and public scoping meeting are attached:

- Attachment 6: Scoping Meeting Presentation
- Attachment 7: Scoping Meeting Presentation Boards
- Attachment 8: Scoping Meeting Comment Card Handout

### **Scoping Comments**

During the scoping comment period, no comments on the proposal were received by email, mail, comment card, or via the court reporter at the public scoping meeting. This includes one email from the Seattle Fire Department received on May 8, 2018, stating that the Seattle Fire Department does not have any input or comments on the proposed action.

### **Next Steps**

This report will be posted on the SEAS website. Public and agency outreach will continue for the duration of the environmental review process, including website updates and meetings with agencies, tribal governments, and members of the public.

### **References**

SDOT (Seattle Department of Transportation), 2016. *Final Environmental Impact Statement: Waterfront Seattle Alaskan Way, Promenade, and Overlook Walk*. October.

Attachment 1  
SEPA Determination of Significance and  
Scoping Notice

---

## Seattle Aquarium Ocean Pavilion

### SEPA Determination of Significance and Request for Comments on the Scope of the Environmental Impact Statement

**DESCRIPTION OF PROPOSAL:** The proposed action would create a new structure located east of the existing aquarium on Alaskan Way and the future Waterfront Promenade. The proposal would be adjacent to the City of Seattle's Overlook Walk, enhancing the pedestrian experience between the waterfront and the Pike Place Market. The proposed structure would include the development of approximately 50,000 gross square feet of public aquarium exhibits and associated support space. No construction in Elliott Bay would be required. Alternatives will be considered, including the configuration of the proposed structure, public open space and rooftop waterfront viewing space, as well as options for an off-site animal care facility.

**PROPONENTS:** City of Seattle through Seattle Parks and Recreation (City) and Seattle Aquarium Society

**LOCATION OF PROPOSAL:** The project area would be located within public property and bounded to the east, by Alaskan Way and to the west by the future pedestrian promenade along the waterfront. The northern boundary of the project area would be at Pine Street and the approximate southern boundary would be at Pike Street. The offsite animal care facility location would be determined during preparation of the environmental impact statement (EIS).

**LEAD AGENCY:** City

**EIS REQUIRED:** The lead agency has determined this proposal is likely to have a significant adverse impact on the environment. A State Environmental Policy Act EIS is required under Revised Code of Washington 43.21C.030 (2)(c) and will be prepared. The lead agency has preliminarily identified the following areas for discussion in the EIS: transportation, construction, water quality, land use, public view protection, and historic and archaeological resources.

**SCOPING:** Scoping is an opportunity for interested stakeholders to provide input on the content and emphasis (the scope) of the EIS. The City invites agencies, tribal governments, and members of the public to provide input on the EIS scope relating to alternatives, probable significant adverse impacts, potential mitigation measures, and licenses or other approvals that may be required.

**HOW TO COMMENT:** You can provide comments on the scope of the EIS by submitting written comments, as well as additional comments at the public scoping meetings, as described below. Comments will be accepted through May 28, 2018.

**MEETING DATE:** A scoping meeting will be held from 5 PM to 7 PM on May 24, 2018 at Friends of the Waterfront located at 1400 Western Avenue, Seattle, WA 98101

**WRITTEN COMMENTS:** Send written scoping comments, requests to be added to the mailing list, or requests for sign language interpretation for the hearing impaired or other special assistance needs, through the website at <https://www.seattleaquarium.org/planning>, by email at [opeiscomments@seattleaquarium.org](mailto:opeiscomments@seattleaquarium.org), or by mail at:

Seattle Aquarium EIS Scoping Comments  
c/o Anchor QEA  
720 Olive Way, Suite 1900  
Seattle, WA 98101

**RESPONSIBLE OFFICIAL:**

Christopher Williams, Interim Superintendent  
Seattle Parks and Recreation  
C/O David Graves  
100 Dexter Avenue N  
Seattle, WA 98109

Signature



Christopher Williams, Interim Superintendent

May 1, 2018

Date

Attachment 2  
SDCI LUIB Publication

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If you have questions about the Seattle Services Portal, please search our **Help Center** and read our **information article**. If you still need help, please contact **SeattleServices\_ITHelp@seattle.gov**. Thank you for your patience as we transition to the new system.

# Seattle Services Portal

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[Announcements](#)

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aquarium



**PUBLIC NOTICE**

Record Status: Published

Record Info:

[Record Details](#)

[Status](#)

[Related Records](#)

[Attachments](#)

## Work Location

SEATTLE WA

## Record Details

**Project Description:**

OTHER LAND USE NOTICE

SEPA Determination of Significance and Request  
for Comments on the Scope of the Environmental  
Impact Statement for Seattle Aquarium Ocean  
Pavilion

**Seattle.gov**

Mayor Jenny A. Durkan

 **Menu**

Notice Type: OTHER LAND USE NOTICE

Publication Date: 05/07/2018

Comments:

See attachments link above for complete notice and supporting documents.

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**ADA Notice**

**Notice of Nondiscrimination**

**Privacy**

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## Seattle Aquarium Ocean Pavilion

### SEPA Determination of Significance and Request for Comments on the Scope of the Environmental Impact Statement

**DESCRIPTION OF PROPOSAL:** The proposed action would create a new structure located east of the existing aquarium on Alaskan Way and the future Waterfront Promenade. The proposal would be adjacent to the City of Seattle's Overlook Walk, enhancing the pedestrian experience between the waterfront and the Pike Place Market. The proposed structure would include the development of approximately 50,000 gross square feet of public aquarium exhibits and associated support space. No construction in Elliott Bay would be required. Alternatives will be considered, including the configuration of the proposed structure, public open space and rooftop waterfront viewing space, as well as options for an off-site animal care facility.

**PROPONENTS:** City of Seattle through Seattle Parks and Recreation (City) and Seattle Aquarium Society

**LOCATION OF PROPOSAL:** The project area would be located within public property and bounded to the east, by Alaskan Way and to the west by the future pedestrian promenade along the waterfront. The northern boundary of the project area would be at Pine Street and the approximate southern boundary would be at Pike Street. The offsite animal care facility location would be determined during preparation of the environmental impact statement (EIS).

**LEAD AGENCY:** City

**EIS REQUIRED:** The lead agency has determined this proposal is likely to have a significant adverse impact on the environment. A State Environmental Policy Act EIS is required under Revised Code of Washington 43.21C.030 (2)(c) and will be prepared. The lead agency has preliminarily identified the following areas for discussion in the EIS: transportation, construction, water quality, land use, public view protection, and historic and archaeological resources.

**SCOPING:** Scoping is an opportunity for interested stakeholders to provide input on the content and emphasis (the scope) of the EIS. The City invites agencies, tribal governments, and members of the public to provide input on the EIS scope relating to alternatives, probable significant adverse impacts, potential mitigation measures, and licenses or other approvals that may be required.

**HOW TO COMMENT:** You can provide comments on the scope of the EIS by submitting written comments, as well as additional comments at the public scoping meetings, as described below. Comments will be accepted through May 28, 2018.

**MEETING DATE:** A scoping meeting will be held from 5 PM to 7 PM on May 24, 2018 at Friends of the Waterfront located at 1400 Western Avenue, Seattle, WA 98101

**WRITTEN COMMENTS:** Send written scoping comments, requests to be added to the mailing list, or requests for sign language interpretation for the hearing impaired or other special assistance needs, through the website at <https://www.seattleaquarium.org/planning>, by email at [opeiscomments@seattleaquarium.org](mailto:opeiscomments@seattleaquarium.org), or by mail at:

Seattle Aquarium EIS Scoping Comments  
c/o Anchor QEA  
720 Olive Way, Suite 1900  
Seattle, WA 98101

**RESPONSIBLE OFFICIAL:**

Christopher Williams, Interim Superintendent  
Seattle Parks and Recreation  
C/O David Graves  
100 Dexter Avenue N  
Seattle, WA 98109

Signature



Christopher Williams, Interim Superintendent

May 1, 2018

Date

Attachment 3

Ecology SEPA Register Notice

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## State Environmental Policy Act (SEPA) Register

SEPA and NEPA documents posted by the Department of Ecology since 2000

Search (../) / 201802375 - SEATTLE CITY OF

### 201802375 - SEATTLE CITY OF

#### Lead Agency

SEATTLE CITY OF

#### Website

https://www.seattl...

#### Contact

Christopher  
Williams

opeiscomments@seattleaquarium.org  
(mailto:opeiscomments@seattleaquarium.org)

#### County      Region

KING          NW

**SEPA #**      201802375

**Document  
Type**      DS/SCOPING

**Date Issued**      05/07/2018

**Comments Due**      05/28/2018

**Proposal  
Description**      Seattle Aquarium Ocean Pavilion - create a new structure located east of the existing aquarium on Alaskan Way and the future Waterfront Promenade. Would include the development of approximately 50,000 gross square feet of public aquarium exhibits and associated support space. Alternatives will be considered, including the configuration of the proposed structure, public open space and rooftop waterfront viewing space, as well as options for an off-site animal care facility.

#### Related Record

##### Notes

**Location**      Address: within public property and bounded to the east by Alaskan Way and to the west by the future pedestrian promenade along the waterfront. The northern boundary of the project area would be at Pine St. and the southern boundary would be at Pike St.  
Seattle, WA

**Applicant**      City of Seattle through Parks and Recreation and Seattle Aquarium Society

**Applicant  
Contact**      Seattle Aquarium EIS Scoping Comments  
c/o Anchor QEA  
720 Olive Way Ste. 1900  
Seattle WA 98101

**Documents**       Aquarium Ocean Pavilion SEPA Determination of Significance.pdf  
(Document/DocumentOpenHandler.ashx?DocumentId=36514)  
(98 KB)

Please email SEPA Help (<mailto:sepahelp@ecy.wa.gov>) with any updates, problems, or questions about SEPA Register.

© 2018 Washington State Department of Ecology - Shorelands Environmental Assistance Program

Attachment 4  
Seattle DJC Legal Notices

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# State of Washington, King County

## **Notice of Determination of Significance (DS) and Scoping Meeting Notice for the Seattle Aquarium Ocean Pavilion**

The City of Seattle Department of Parks and Recreation, in coordination with the Seattle Aquarium Society (SEAS), is preparing a State Environmental Policy Act Environmental Impact Statement (EIS) for the Seattle Aquarium Ocean Pavilion. The proposed action would create a new structure located east of the existing aquarium on Alaskan Way and the future Waterfront Promenade. The proposal would be adjacent to the City of Seattle's Overlook Walk, enhancing the pedestrian experience between the waterfront and the Pike Place Market. SEAS invites agencies, tribal governments, and members of the public to provide input on the EIS scope relating to alternatives, probable significant adverse impacts, potential mitigation measures, and licenses or other approvals that may be required. A public meeting is being held to obtain information about and provide comments on the EIS scope. Presentations will begin at 5:15 PM, followed by an open house until 7:00 PM.

### **Date and Location:**

Tuesday, May 24, 2018

Friends of Waterfront Seattle  
Waterfront Space  
1400 Western Avenue  
Seattle, WA, 98101  
5:00 PM to 7:00 PM

Written scoping comments, requests to be added to the mailing list, or requests for sign language interpretation for the hearing impaired or other special assistance needs, can be submitted through the website at <https://www.seattleaquarium.org/planning>, by email at [opeis-comments@seattleaquarium.org](mailto:opeis-comments@seattleaquarium.org), or by mail at:

Seattle Aquarium EIS Scoping  
Comments

c/o Anchor ●EA  
720 Olive Way, Suite 1900  
Seattle, WA 98101

Date of publication in  
the Seattle Daily Journal of  
Commerce, May 7, 2018.

**5/7(361639)**

---

STATE OF WASHINGTON -- KING COUNTY

--SS.

361639  
ANCHOR QEA,LLC

No.

**Affidavit of Publication**

The undersigned, on oath states that he is an authorized representative of The Daily Journal of Commerce, a daily newspaper, which newspaper is a legal newspaper of general circulation and it is now and has been for more than six months prior to the date of publication hereinafter referred to, published in the English language continuously as a daily newspaper in Seattle, King County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of this newspaper. The Daily Journal of Commerce was on the 12<sup>th</sup> day of June, 1941, approved as a legal newspaper by the Superior Court of King County.

The notice in the exact form annexed, was published in regular issues of The Daily Journal of Commerce, which was regularly distributed to its subscribers during the below stated period. The annexed notice, a

PN:SEATTLE AQUARIUM EIS

was published on

05/07/18

The amount of the fee charged for the foregoing publication is the sum of \$142.60 which amount has been paid in full.



\_\_\_\_\_  
Subscribed and sworn to before me on  
05/07/2018  
\_\_\_\_\_  
Notary public for the State of Washington,  
residing in Seattle

# State of Washington, King County

## \*CORRECTION

### Notice of Determination of Significance (DS) and Scoping Meeting Notice for the Seattle Aquarium Ocean Pavilion

The City of Seattle Department of Parks and Recreation, in coordination with the Seattle Aquarium Society (SEAS), is preparing a State Environmental Policy Act Environmental Impact Statement (EIS) for the Seattle Aquarium Ocean Pavilion. The proposed action would create a new structure located east of the existing aquarium on Alaskan Way and the future Waterfront Promenade. The proposal would be adjacent to the City of Seattle's Overlook Walk, enhancing the pedestrian experience between the waterfront and the Pike Place Market. SEAS invites agencies, tribal governments, and members of the public to provide input on the EIS scope relating to alternatives, probable significant adverse impacts, potential mitigation measures, and licenses or other approvals that may be required. A public meeting is being held to obtain information about and provide comments on the EIS scope. Presentations will begin at 5:15 PM, followed by an open house until 7:00 PM.

#### **Date and Location:**

**\*Thursday**, May 24, 2018

Friends of Waterfront Seattle  
Waterfront Space

1400 Western Avenue

Seattle, WA, 98101

5:00 PM to 7:00 PM

Written scoping comments, requests to be added to the mailing list, or requests for sign language interpretation for the hearing impaired or other special assistance needs, can be submitted through the website at <https://www.seattleaquarium.org/planning> by email at [opeis-comments@seattleaquarium.org](mailto:opeis-comments@seattleaquarium.org), or by mail at:

Seattle Aquarium EIS Scoping  
Comments

c/o Anchor QEA

720 Olive Way, Suite 1900

Seattle, WA 98101

Date of publication in  
the Seattle Daily Journal of  
Commerce, May 15, 2018.

**5/15(361965)**

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STATE OF WASHINGTON -- KING COUNTY

--SS.

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361965  
ANCHOR QEA,LLC

No.

**Affidavit of Publication**

The undersigned, on oath states that he is an authorized representative of The Daily Journal of Commerce, a daily newspaper, which newspaper is a legal newspaper of general circulation and it is now and has been for more than six months prior to the date of publication hereinafter referred to, published in the English language continuously as a daily newspaper in Seattle, King County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of this newspaper. The Daily Journal of Commerce was on the 12<sup>th</sup> day of June, 1941, approved as a legal newspaper by the Superior Court of King County.

The notice in the exact form annexed, was published in regular issues of The Daily Journal of Commerce, which was regularly distributed to its subscribers during the below stated period. The annexed notice, a

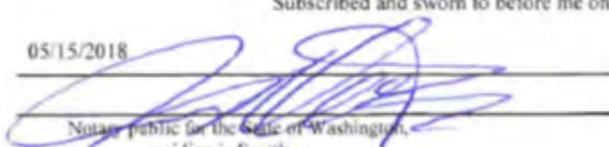
PN:SEATTLE AQUARIUM DS

was published on

05/15/18

The amount of the fee charged for the foregoing publication is the sum of \$142.60 which amount has been paid in full.



  
\_\_\_\_\_  
Subscribed and sworn to before me on  
05/15/2018  
  
\_\_\_\_\_  
Notary Public for the State of Washington,  
residing in Seattle

## Attachment 5

# Scoping Notice Email to Agencies, Tribes, and Stakeholders

---

**From:** [Heather Page](#)  
**To:** ["david.graves@seattle.gov"](mailto:david.graves@seattle.gov)  
**Cc:** ["opeiscomments@seattleaquarium.org"](mailto:opeiscomments@seattleaquarium.org)  
**Bcc:** ["DTS@qwestoffice.net"](mailto:DTS@qwestoffice.net); ["virginia.cross@muckleshoot.nsn.us"](mailto:virginia.cross@muckleshoot.nsn.us); ["jolene.williams@snoqualmieltribe.us"](mailto:jolene.williams@snoqualmieltribe.us); ["lforzman@suquamish.nsn.us"](mailto:lforzman@suquamish.nsn.us); ["bcladoosby@swinomish.nsn.us"](mailto:bcladoosby@swinomish.nsn.us); ["mzackuse@tulaliptribes-nsn.gov"](mailto:mzackuse@tulaliptribes-nsn.gov); ["Kirstan.Arestad@seattle.gov"](mailto:Kirstan.Arestad@seattle.gov); ["Allyson.Brooks@dahp.wa.gov"](mailto:Allyson.Brooks@dahp.wa.gov); ["Rob.Whitlam@dahp.wa.gov"](mailto:Rob.Whitlam@dahp.wa.gov); ["gordon.white@ecy.wa.gov"](mailto:gordon.white@ecy.wa.gov); ["director@dfw.wa.gov"](mailto:director@dfw.wa.gov); ["Laura.Arber@dfw.wa.gov"](mailto:Laura.Arber@dfw.wa.gov); ["derrick.toba@dnr.wa.gov"](mailto:derrick.toba@dnr.wa.gov); ["joe.miles@dnr.wa.gov"](mailto:joe.miles@dnr.wa.gov); ["MILLARR@wsdot.wa.gov"](mailto:MILLARR@wsdot.wa.gov); ["WILLIAR@wsdot.wa.gov"](mailto:WILLIAR@wsdot.wa.gov); ["TREPANTV@wasdot.wa.gov"](mailto:TREPANTV@wasdot.wa.gov); ["JUDDRON@wsdot.wa.gov"](mailto:JUDDRON@wsdot.wa.gov); ["RuckiG@wsdot.wa.gov"](mailto:RuckiG@wsdot.wa.gov); ["McIntosh@wsdot.wa.gov"](mailto:McIntosh@wsdot.wa.gov); ["SCARTOA@wsdot.wa.gov"](mailto:SCARTOA@wsdot.wa.gov); ["kcxec@kingcounty.gov"](mailto:kcxec@kingcounty.gov); ["rob.gannon@kingcounty.gov"](mailto:rob.gannon@kingcounty.gov); ["stephanie.pure@kingcounty.gov"](mailto:stephanie.pure@kingcounty.gov); ["christina.oclair@kingcounty.gov"](mailto:christina.oclair@kingcounty.gov); ["mark.isaacson@kingcounty.gov"](mailto:mark.isaacson@kingcounty.gov); ["Nicole.Willis@seattle.gov"](mailto:Nicole.Willis@seattle.gov); ["Erin.Ferguson@seattle.gov"](mailto:Erin.Ferguson@seattle.gov); ["james.baggs@seattle.gov"](mailto:james.baggs@seattle.gov); ["Tamara.Jenkins@seattle.gov"](mailto:Tamara.Jenkins@seattle.gov); ["nathan.torgelson@seattle.gov"](mailto:nathan.torgelson@seattle.gov); ["margaret.glowacki@seattle.gov"](mailto:margaret.glowacki@seattle.gov); ["Melinda.Bloom@seattle.gov"](mailto:Melinda.Bloom@seattle.gov); ["sarah.sodt@seattle.gov"](mailto:sarah.sodt@seattle.gov); ["harold.scoggins@seattle.gov"](mailto:harold.scoggins@seattle.gov); ["mami.hara@seattle.gov"](mailto:mami.hara@seattle.gov); ["bobd@keepclam.com"](mailto:bobd@keepclam.com); ["chief librarian@spl.org"](mailto:chief librarian@spl.org); ["Lisa@pioneersquare.org"](mailto:Lisa@pioneersquare.org); ["president@belltowncc.org"](mailto:president@belltowncc.org); ["catherine@castanford.com"](mailto:catherine@castanford.com); ["richards@cascade.org"](mailto:richards@cascade.org); ["jons@downtownseattle.org"](mailto:jons@downtownseattle.org); ["info@feetfirst.org"](mailto:info@feetfirst.org); ["Heidi@friendsofwaterfrontseattle.org"](mailto:Heidi@friendsofwaterfrontseattle.org); ["info@historicsouthdowntown.org"](mailto:info@historicsouthdowntown.org); ["bobd@keepclam.com"](mailto:bobd@keepclam.com); ["KarinM@pikeplacemarket.org"](mailto:KarinM@pikeplacemarket.org); ["metruck.s@portseattle.org"](mailto:metruck.s@portseattle.org); ["emily.ehlers@seattle.gov"](mailto:emily.ehlers@seattle.gov); ["marta.idowu@seattle.gov"](mailto:marta.idowu@seattle.gov); ["michael.jenkins@seattle.gov"](mailto:michael.jenkins@seattle.gov); ["christopher.eaves@seattle.gov"](mailto:christopher.eaves@seattle.gov); ["info@seattlechamber.com"](mailto:info@seattlechamber.com); ["DOT\\_PedBoard@seattle.gov"](mailto:DOT_PedBoard@seattle.gov); ["Susan Bullerduck"](#); [Ben Franz-Knight](#); [Josh Jensen](#); [Heather Page](#); [Holly D. Golden](#)  
**Subject:** Seattle Aquarium Ocean Pavilion: Scoping Notice  
**Date:** Monday, May 7, 2018 5:10:00 PM

---

The City of Seattle Department of Parks and Recreation, in coordination with the Seattle Aquarium Society, is preparing a State Environmental Policy Act Environmental Impact Statement (EIS) for the Seattle Aquarium Ocean Pavilion. The proposed action would create a new structure located east of the existing aquarium on Alaskan Way and the future Waterfront Promenade. The proposal would be adjacent to the City of Seattle's Overlook Walk, enhancing the pedestrian experience between the waterfront and the Pike Place Market. The Seattle Aquarium Society invites agencies, tribal governments, and members of the public to provide input on the EIS scope relating to alternatives, probable significant adverse impacts, potential mitigation measures, and licenses or other approvals that may be required. A public meeting is being held to obtain information about and provide comments on the EIS scope. Presentations will begin at 5:15 PM, followed by an open house until 7:00 PM.

**Date and Location:**

Thursday, May 24, 2018  
Friends of Waterfront Seattle Waterfront Space  
1400 Western Avenue  
Seattle, WA, 98101  
5:00 PM to 7:00 PM

Written scoping comments, requests to be added to the mailing list, or requests for sign language interpretation for the hearing impaired or other special assistance needs, can be submitted through the website at <https://www.seattleaquarium.org/planning>, by email at [opeiscomments@seattleaquarium.org](mailto:opeiscomments@seattleaquarium.org), or by mail at:

Seattle Aquarium EIS Scoping Comments  
c/o Anchor QEA  
720 Olive Way, Suite 1900  
Seattle, WA 98101

We look forward to working with you on this exciting project.

Sending on behalf of:

David Graves

Seattle Parks and Recreation

Attachment 6  
Scoping Meeting Presentation

---



# Seattle Aquarium Ocean Pavilion

EIS SCOPING MEETING  
MAY 24TH, 2018



# PRESENTATION OVERVIEW

## OCEAN PAVILION EIS SCOPING

- I. WELCOME, MEETING PURPOSE, AND AGENDA
- II. SEPA EIS PROCESS
- III. OCEAN PAVILION OVERVIEW
- IV. OBJECTIVES AND PRELIMINARY ALTERNATIVES
- V. QUESTIONS AND DISCUSSION

# MEETING AGENDA

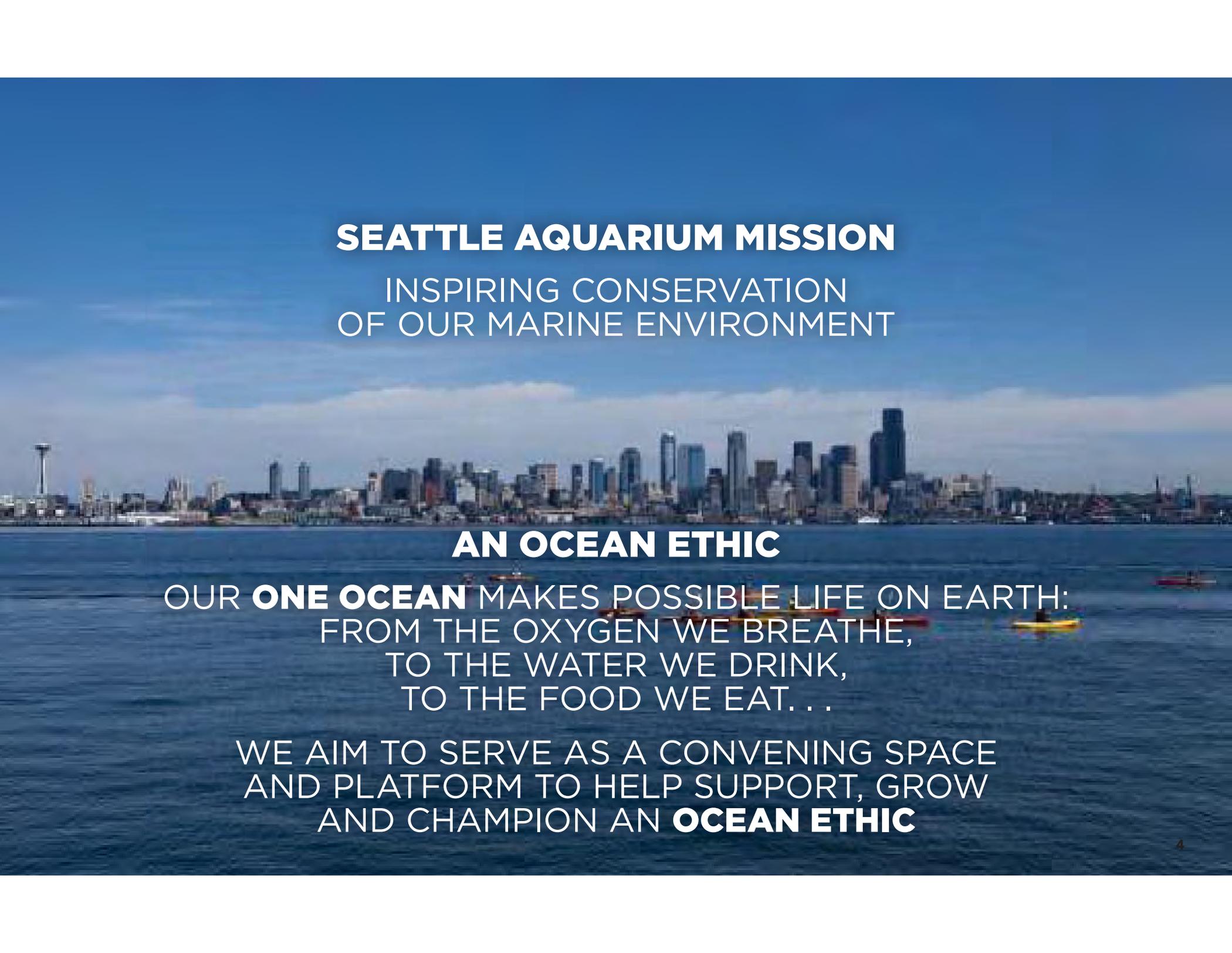
MAY 24TH, 2018

5:00 - 5:15 - RECEPTION / SIGN-IN

5:15 - 5:30 - PRESENTATION

5:30 - 6:00 - QUESTIONS AND DISCUSSION

6:00 - 7:00 - OPEN HOUSE / STATIONS / COURT REPORTER

A wide-angle photograph of the Seattle skyline across a body of water. The sky is a clear, deep blue. The city's buildings are silhouetted against the horizon. In the foreground, the water is dark blue with some small boats visible.

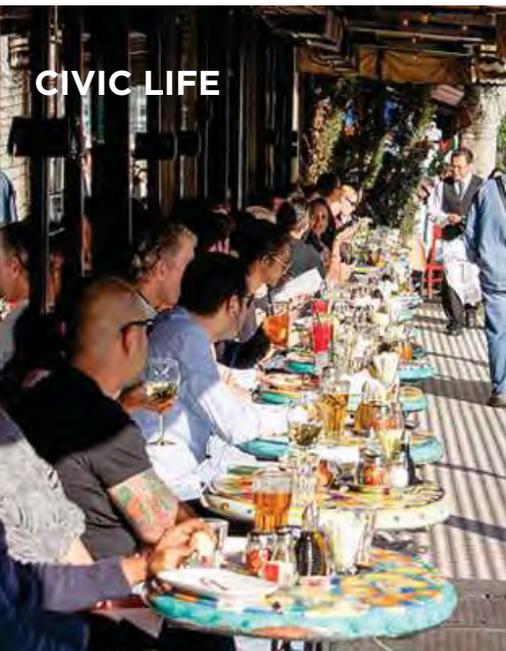
## SEATTLE AQUARIUM MISSION

INSPIRING CONSERVATION  
OF OUR MARINE ENVIRONMENT

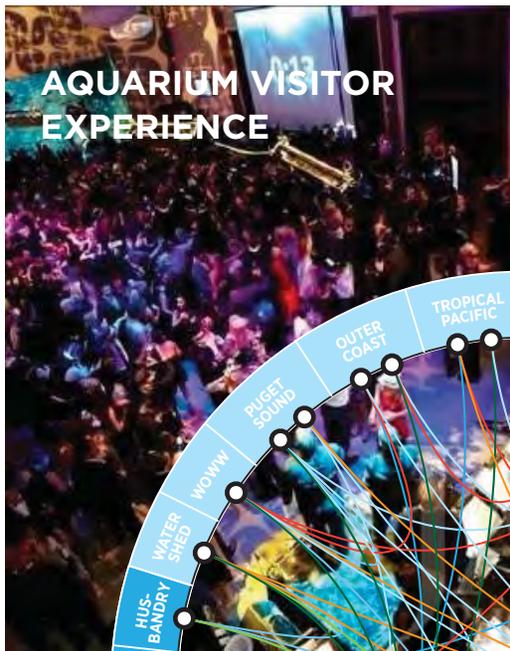
### AN OCEAN ETHIC

OUR **ONE OCEAN** MAKES POSSIBLE LIFE ON EARTH:  
FROM THE OXYGEN WE BREATHE,  
TO THE WATER WE DRINK,  
TO THE FOOD WE EAT...

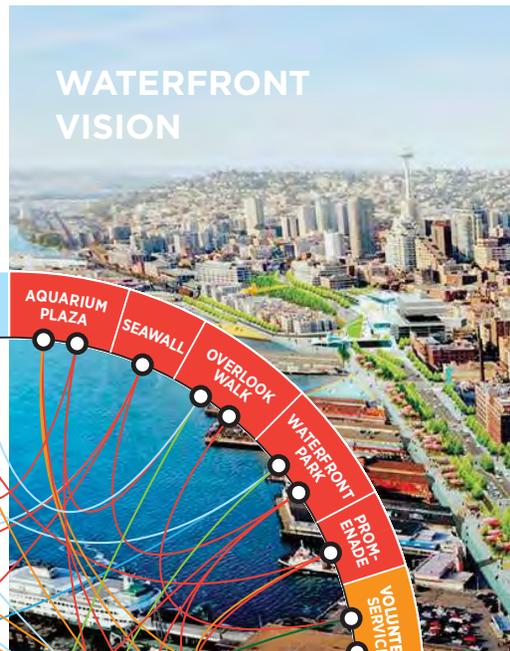
WE AIM TO SERVE AS A CONVENING SPACE  
AND PLATFORM TO HELP SUPPORT, GROW  
AND CHAMPION AN **OCEAN ETHIC**



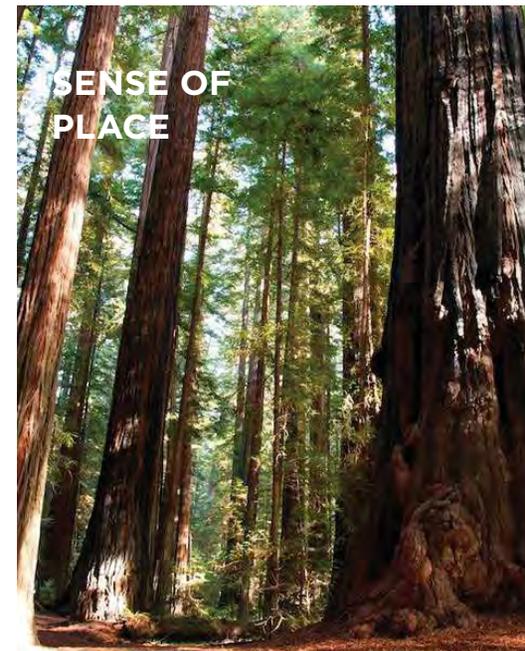
CIVIC LIFE



AQUARIUM VISITOR EXPERIENCE



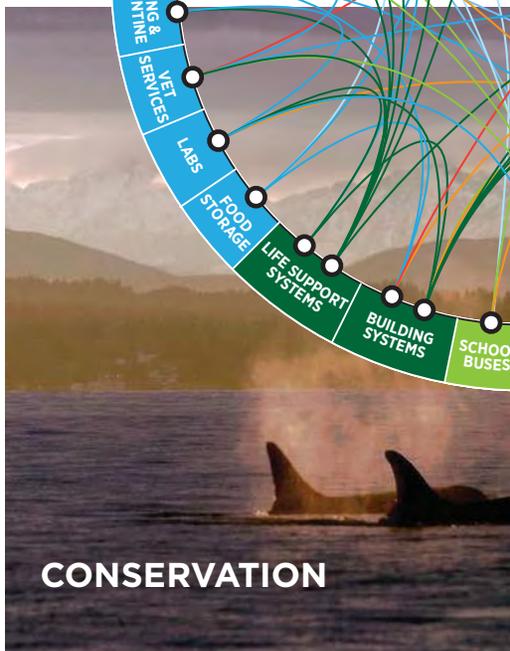
WATERFRONT VISION



SENSE OF PLACE



EDUCATION



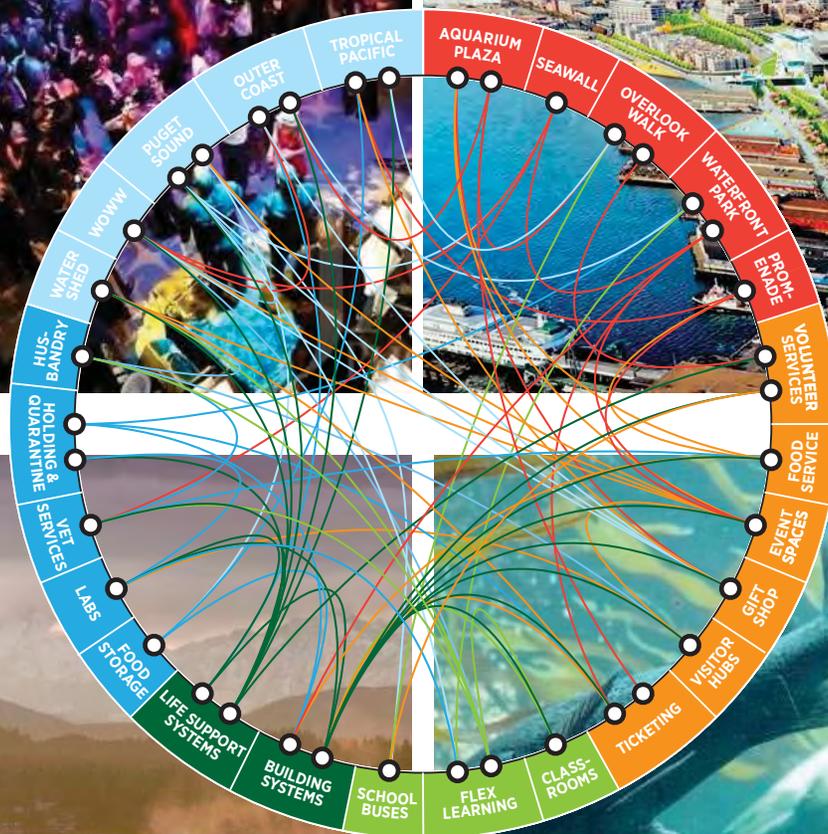
CONSERVATION



ECOLOGY



RESEARCH



# SEPA EIS PROCESS

# STEPS TO PREPARE AN EIS

I. SCOPING AS FIRST STEP

II. FINAL EIS INFORMS FUTURE DECISIONS



# SCOPING

PURPOSE / DESCRIPTION

SCOPING COMMENTS HELP DETERMINE THE ISSUES AND ALTERNATIVES TO FOCUS ON WITHIN THE EIS, BASED ON YOUR INPUT.

SCOPING PROVIDES AN OPPORTUNITY TO OBTAIN INFORMATION AS A KEY PART OF DEVELOPING THE EIS, INCLUDING:

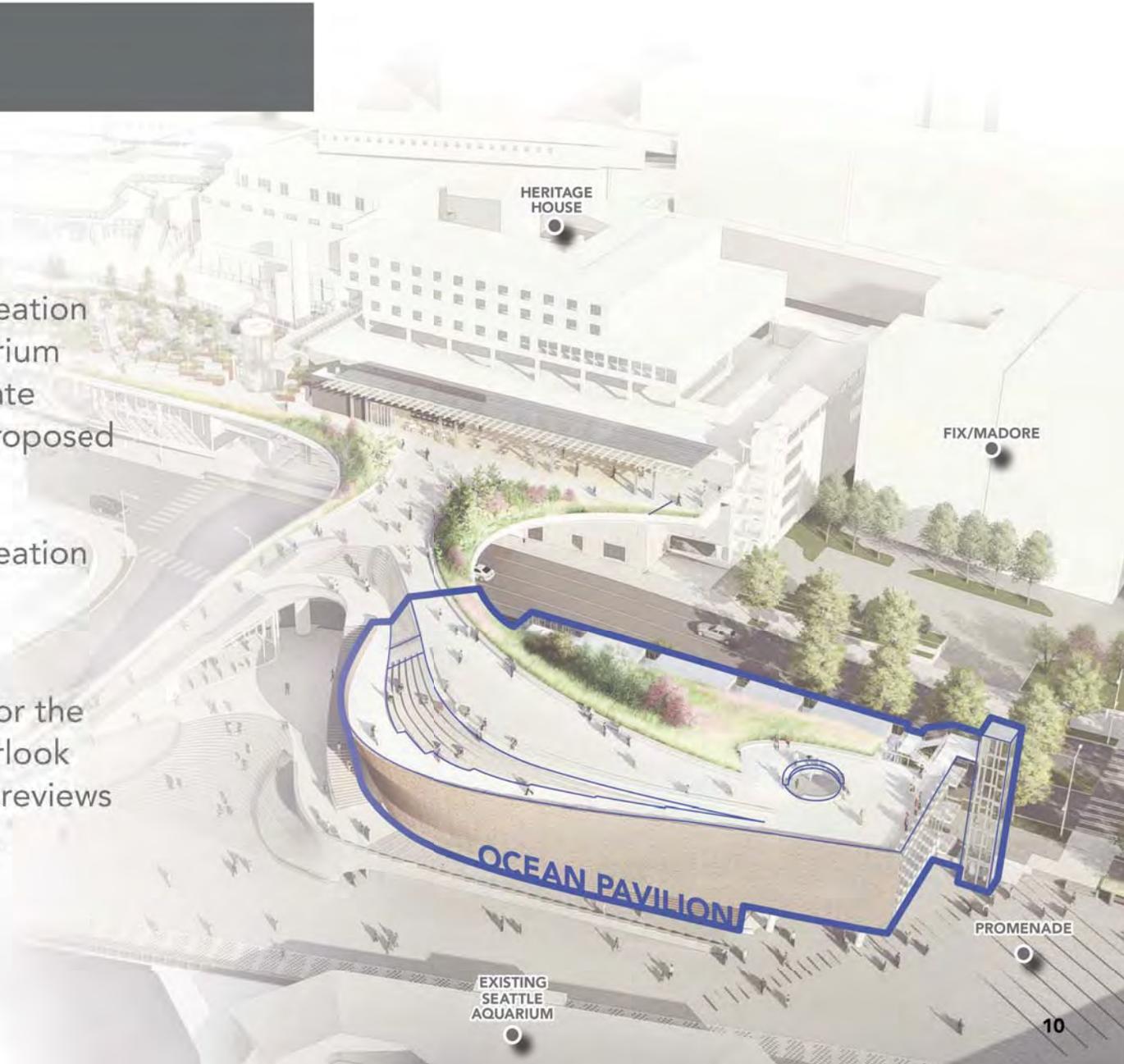
- What are the potential issues and environmental resources we should be reviewing?
- What other alternatives do you think should be considered?

OCEAN PAVILION  
**PROJECT OVERVIEW**

# OCEAN PAVILION

## PROJECT OVERVIEW

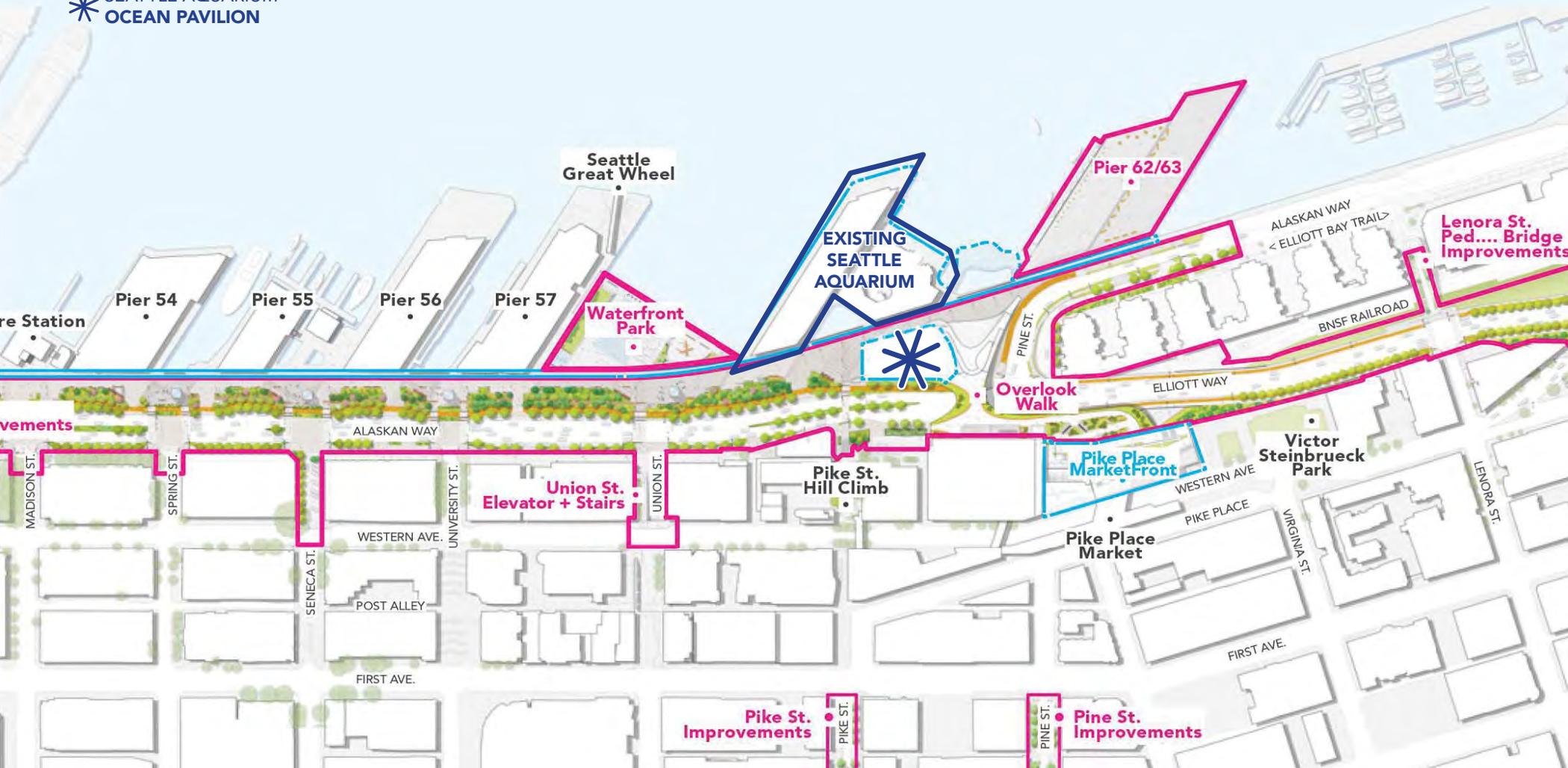
- The City of Seattle Parks and Recreation Department and the Seattle Aquarium are preparing a SEPA EIS to evaluate environmental impacts from the proposed ocean pavilion.
- The City of Seattle Parks and Recreation will be the SEPA lead agency.
- The EIS will draw upon extensive environmental review conducted for the Alaskan Way Promenade and Overlook Walk EIS and other environmental reviews conducted for projects in the area.



# CENTRAL WATERFRONT

PROJECT AREA

 SEATTLE AQUARIUM  
OCEAN PAVILION

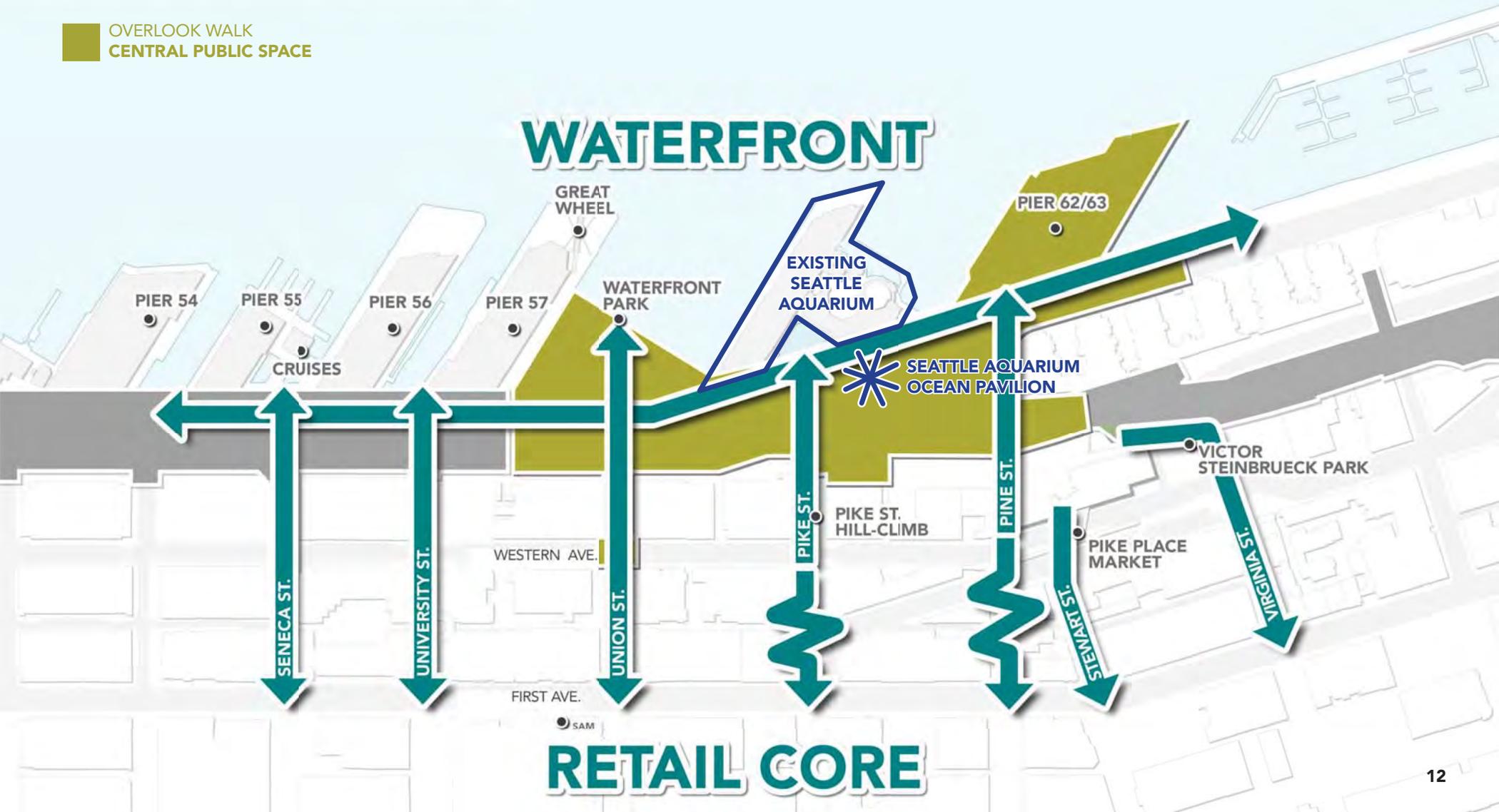


# CENTRAL WATERFRONT

## EXISTING PEDESTRIAN CONNECTIONS

OVERLOOK WALK

CENTRAL PUBLIC SPACE



# CENTRAL WATERFRONT

PROPOSED PEDESTRIAN CONNECTIONS

PIKE PLACE  
MARKET

PIERS 62/63

EXISTING  
SEATTLE  
AQUARIUM





**OBJECTIVES**  
AND PRELIMINARY ALTERNATIVES

# OBJECTIVES

The objectives of the Aquarium Ocean Pavilion include the following, which will be used as the basis for evaluating the alternatives:

- Accommodate a 40% increase in expected attendance and visitors, which requires an approximately 48,000 square foot building and multi-modal pathways
- Provide a continuous connection with the existing Seattle Aquarium to facilitate movement of visitors, volunteers, and staff, and to support Aquarium programming
- Provide opportunities for public open space and enjoyment of the shoreline
- Create a space that supports the Aquarium's mission of *Inspiring Conservation of Our Marine Environment* and provides the public with a global ocean experience

# PRELIMINARY ALTERNATIVES

## OCEAN PAVILION SITE LOCATION AND ORIENTATION

Three preliminary alternatives have been considered, including a no action alternative. Overwater alternatives were considered but not advanced.

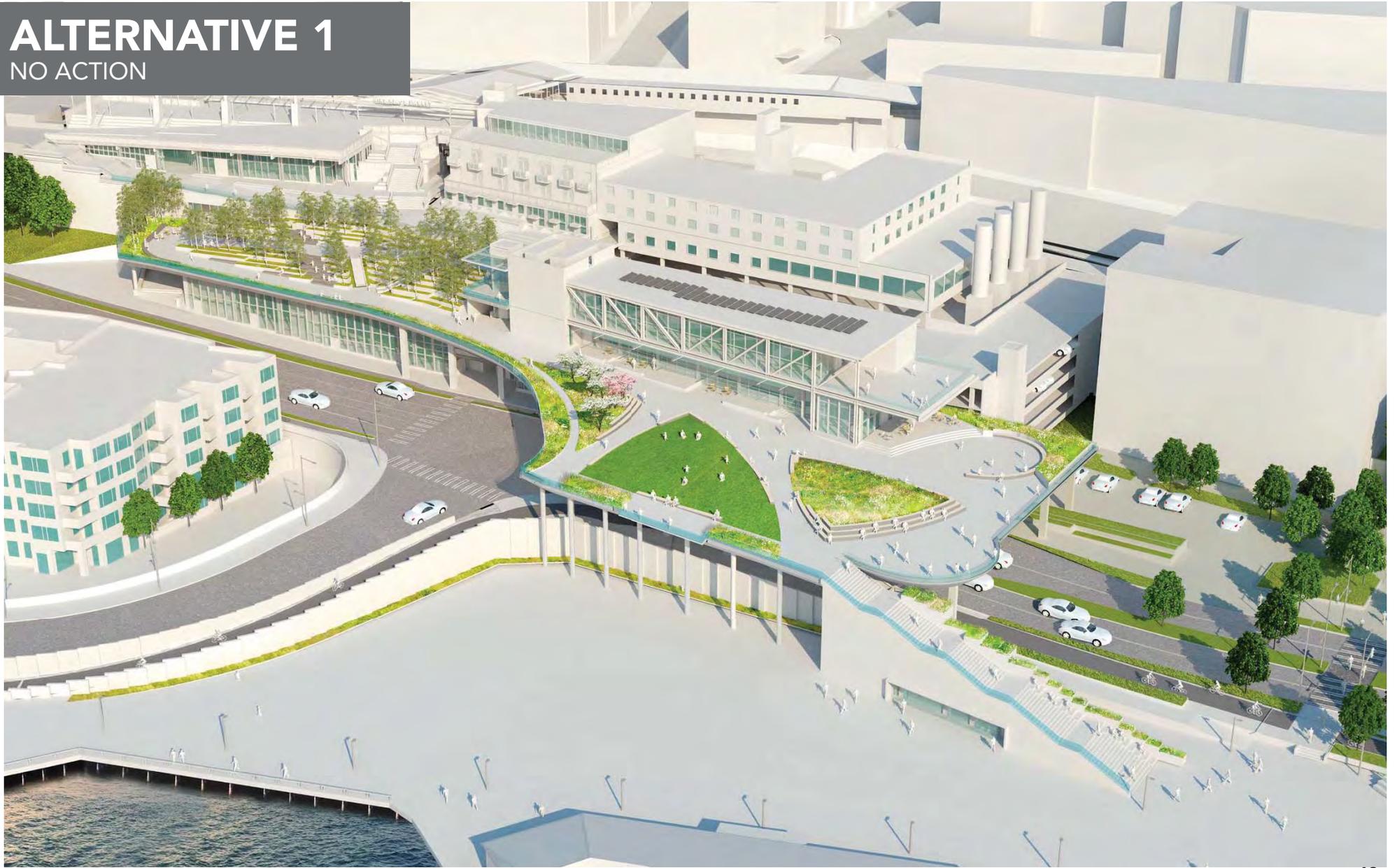
The **preferred alternative** would create a new structure located east of the existing aquarium on Alaskan Way and the future Waterfront Promenade. The proposal would be adjacent to the City of Seattle's Overlook Walk, enhancing the pedestrian experience between the waterfront and the Pike Place Market. The proposed structure would include the development of approximately 48,000 gross square feet of public aquarium exhibits and associated support space.

Alternatives will be considered, including the configuration of the proposed structure, public open space and roof top waterfront viewing space, as well as options for an off-site animal care center.

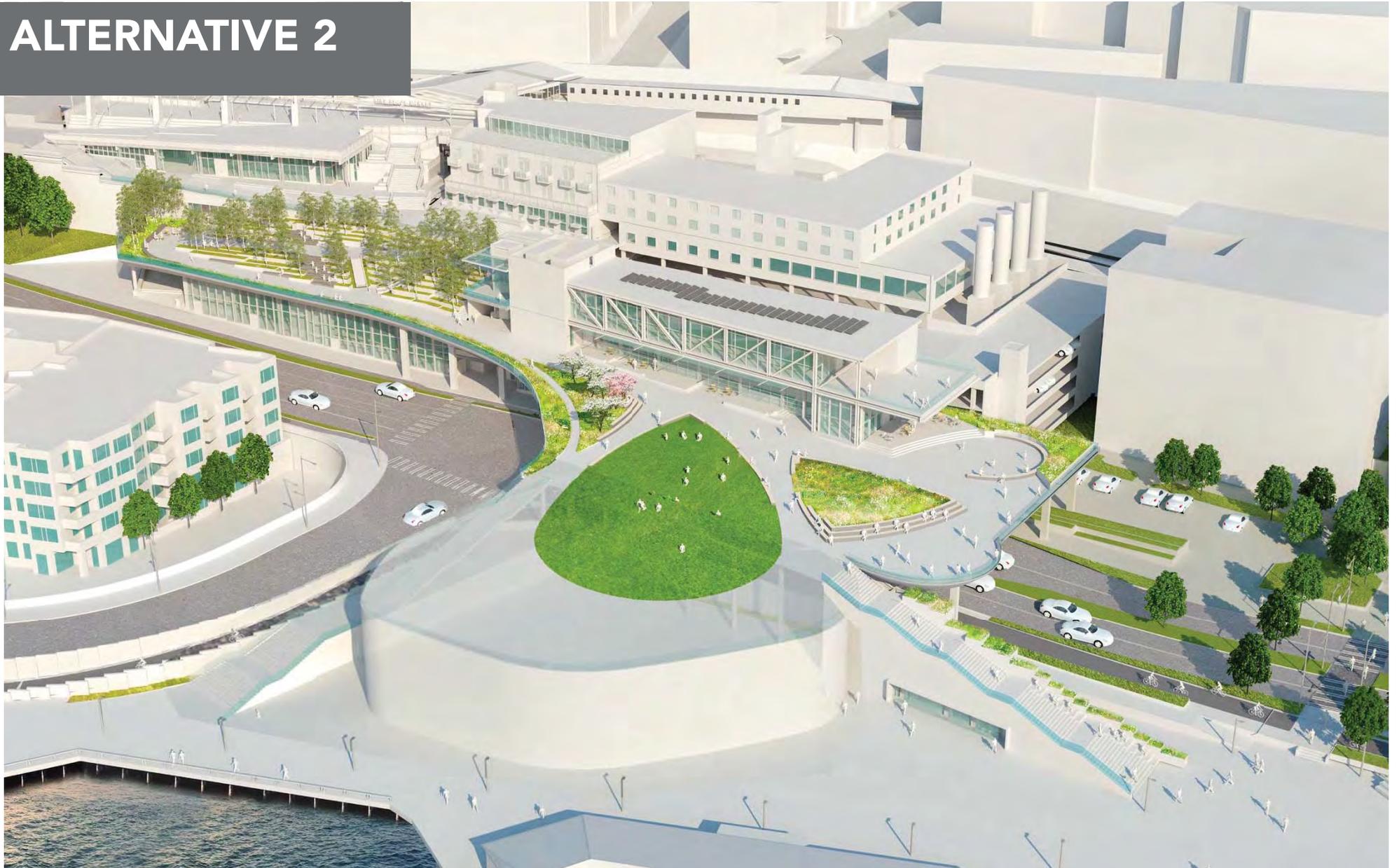


# ALTERNATIVE 1

NO ACTION



# ALTERNATIVE 2



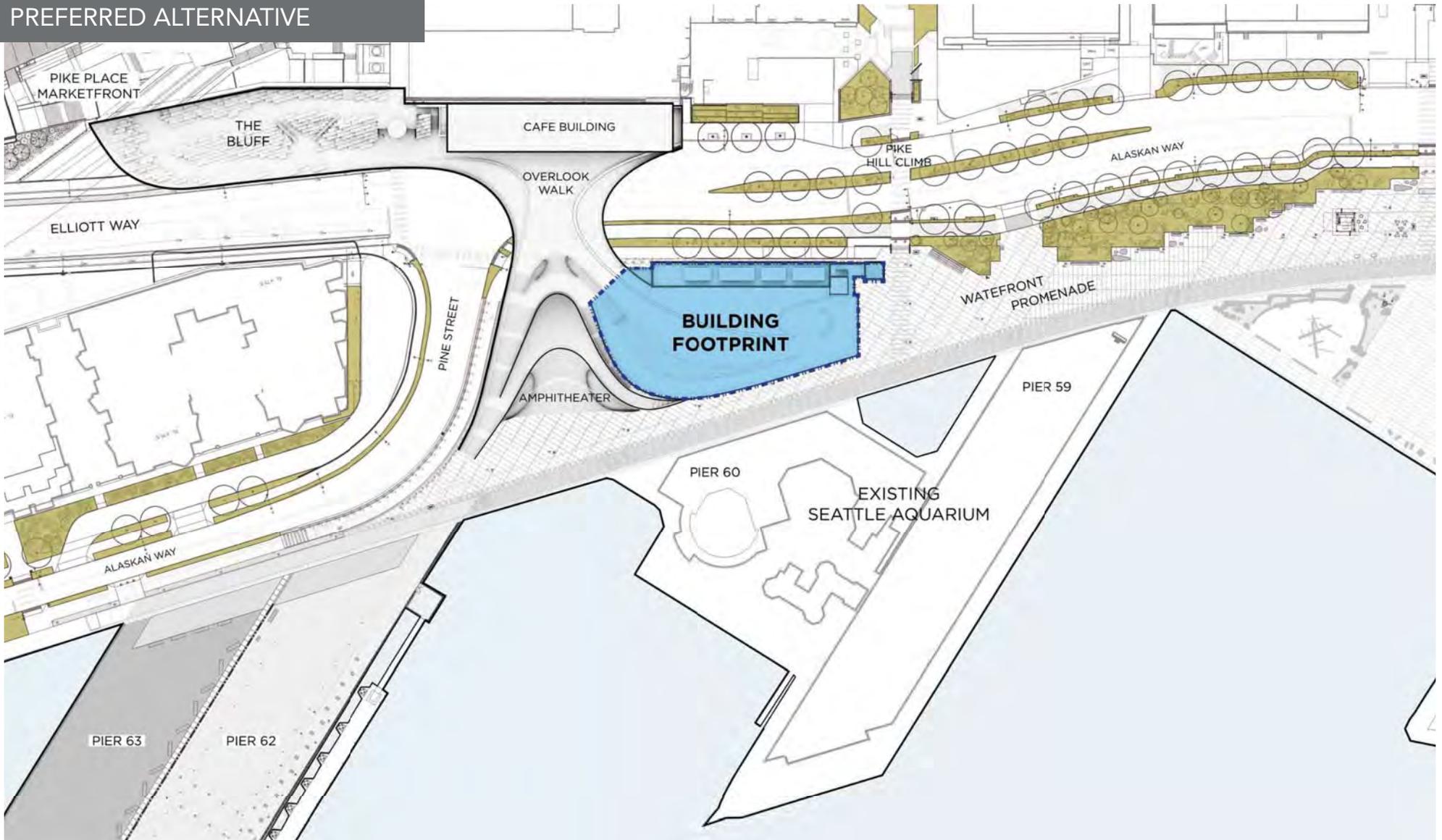
# ALTERNATIVE 3

PREFERRED ALTERNATIVE



# ALTERNATIVE 3

PREFERRED ALTERNATIVE



# ALTERNATIVE 3

PREFERRED ALTERNATIVE



NOTE:  
-DRAWINGS REPRESENT CONCEPTUAL DESIGN OF THE AQUARIUM EXPANSION  
-ELEMENTS OF THE CITY'S WATERFRONT PROGRAM ARE NOT PART OF THIS EIS

# ALTERNATIVE 3

PREFERRED ALTERNATIVE



NOTE:  
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# ALTERNATIVE 3

PREFERRED ALTERNATIVE



NOTE  
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ELEMENTS OF THE CITY'S WATERFRONT PROGRAM ARE NOT PART OF THIS EIS

# ALTERNATIVE 3

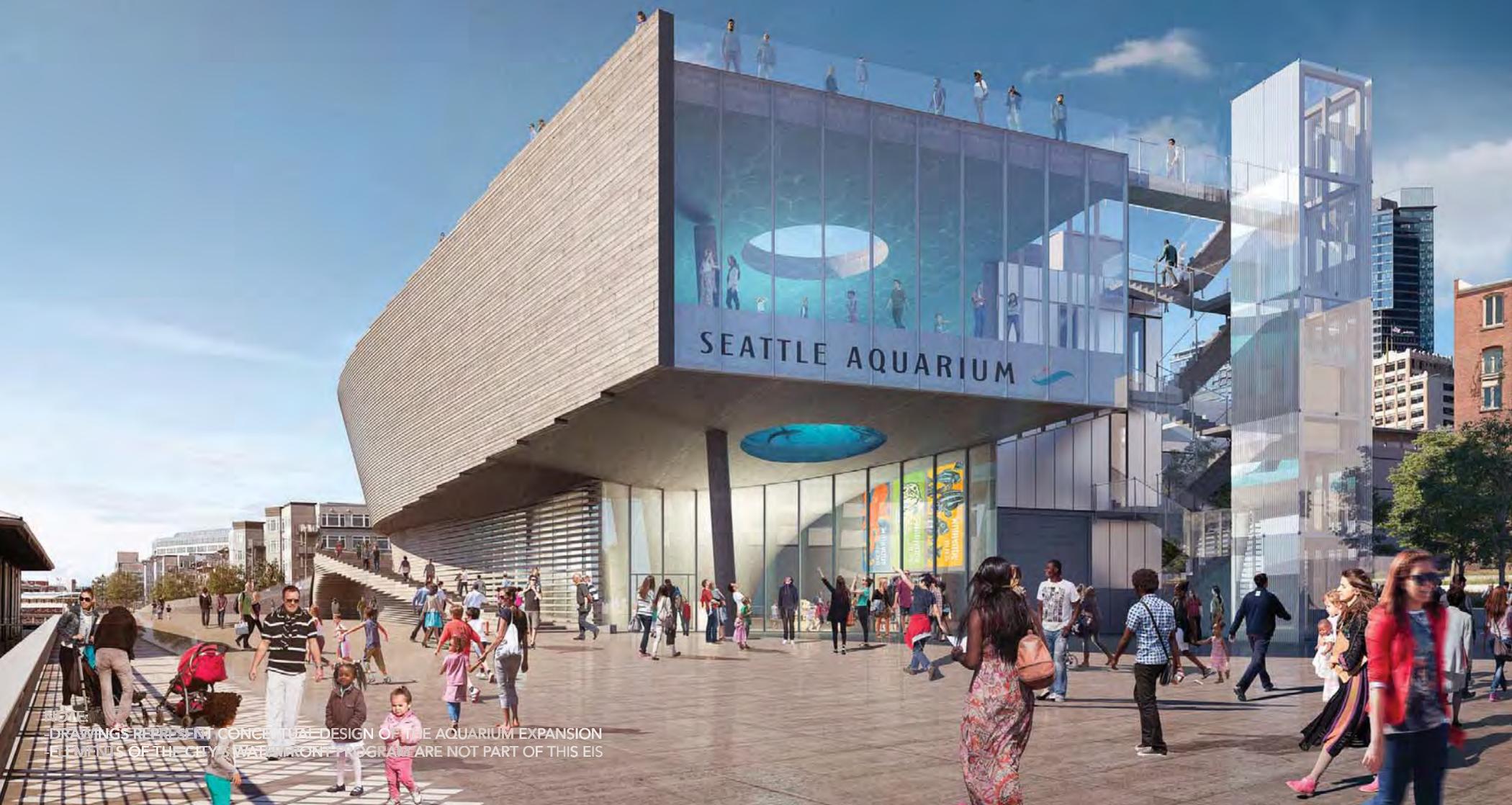
PREFERRED ALTERNATIVE



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# ALTERNATIVE 3

PREFERRED ALTERNATIVE



DRAWINGS REPRESENT CONCEPTUAL DESIGN OF THE AQUARIUM EXPANSION  
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# ENVIRONMENTAL ASSESSMENT

## ELEMENTS OF THE ENVIRONMENT ASSESSED

THE LEAD AGENCY HAS PRELIMINARILY IDENTIFIED THE FOLLOWING AREAS FOR ANALYSIS IN THE EIS:

- TRANSPORTATION
- CONSTRUCTION
- WATER QUALITY
- LAND USE
- AESTHETICS
- HISTORIC AND ARCHAEOLOGICAL RESOURCES

# SCOPING INPUT

OCEAN PAVILION

## I. STATIONS

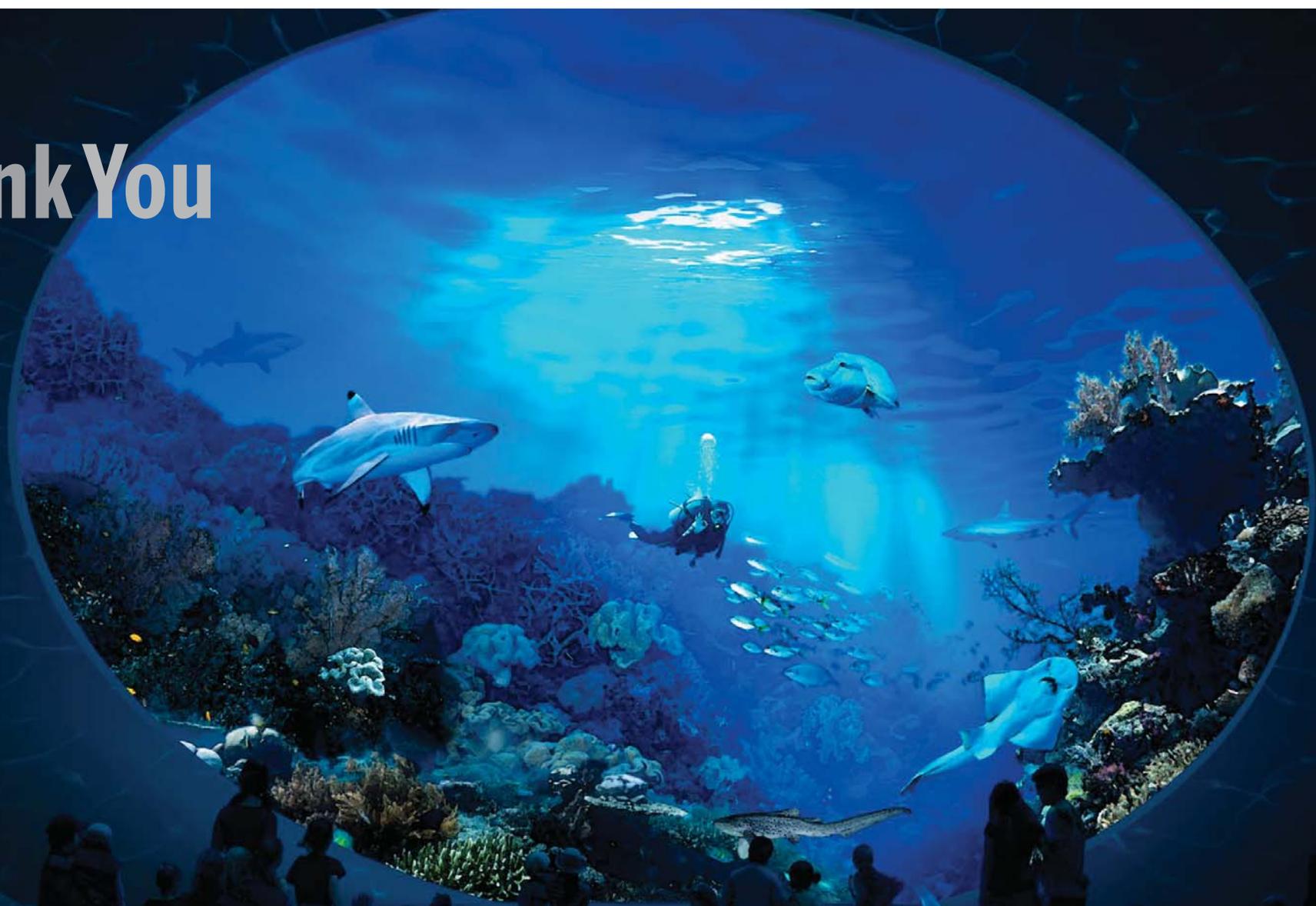
- ENVIRONMENTAL REVIEW
- PREFERRED ALTERNATIVE CONCEPT OVERVIEW
- PROJECT SCHEDULE
- SITE MODEL
- 

## II. COURT REPORTER

## III. COMMENT CARDS

## IV. SCOPING PERIOD CLOSES MAY 28, 2018

# Thank You



  
SEATTLE AQUARIUM

  
Seattle  
Parks & Recreation

LMN

Thinc™

Attachment 7

Scoping Meeting Presentation Boards

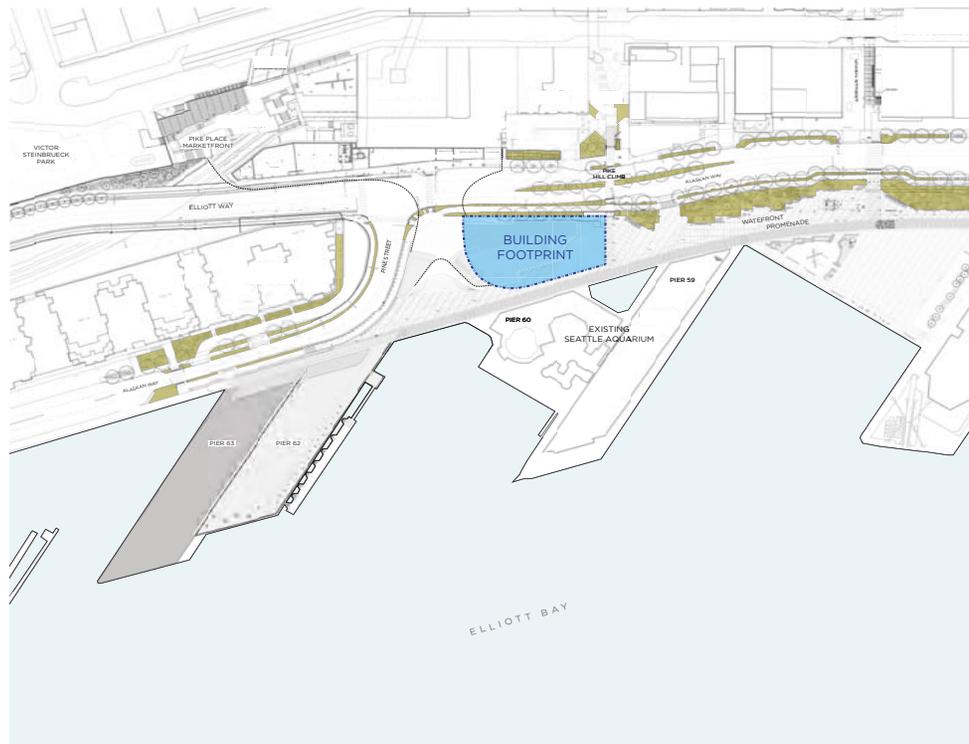
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# ENVIRONMENTAL REVIEW

## SEATTLE AQUARIUM OCEAN PAVILION



### LOCATION OF PROPOSAL



### LOCATION OF PROPOSAL:

THE PROJECT AREA WOULD BE LOCATED WITHIN PUBLIC PROPERTY AND BOUNDED TO THE EAST BY ALASKAN WAY AND TO THE WEST BY THE FUTURE PEDESTRIAN PROMENADE ALONG THE WATERFRONT. THE NORTHERN BOUNDARY OF THE PROJECT AREA WOULD BE AT PINE STREET AND THE APPROXIMATE SOUTHERN BOUNDARY WOULD BE AT PIKE STREET.

THE OFF-SITE ANIMAL CARE CENTER LOCATION WOULD BE DETERMINED DURING PREPARATION OF THE ENVIRONMENTAL IMPACT STATEMENT (EIS).

### WHAT IS SEPA?

THE STATE ENVIRONMENTAL POLICY ACT (SEPA) IS AN ENVIRONMENTAL REVIEW PROCESS THAT PROVIDES A WAY TO IDENTIFY AND STUDY POSSIBLE ENVIRONMENTAL EFFECTS OF A PROPOSAL. THE PROCESS HELPS DECISION-MAKERS AND THE PUBLIC UNDERSTAND HOW A PROPOSED ACTION WILL AFFECT THE ENVIRONMENT.

### WHAT IS AN EIS?

AN ENVIRONMENTAL IMPACT STATEMENT (EIS) PROVIDES AN IMPARTIAL EVALUATION OF SIGNIFICANT ENVIRONMENTAL IMPACTS AND INFORMS DECISION MAKERS AND THE PUBLIC OF REASONABLE ALTERNATIVES, INCLUDING MITIGATION MEASURES, THAT WOULD AVOID OR MINIMIZE ADVERSE IMPACTS OR ENHANCE ENVIRONMENTAL QUALITY.

### WHAT IS SCOPING?

SCOPING IS THE FIRST STEP IN THE EIS PROCESS. THE PURPOSE OF SCOPING IS TO SEEK INPUT FROM THE PUBLIC, AGENCIES, TRIBES, AND STAKEHOLDERS ON THE ALTERNATIVES AND AFFECTED ENVIRONMENT PROPOSED TO BE DISCUSSED IN THE EIS.

### HOW CAN YOU HELP?

YOUR THOUGHTS ON THIS PROPOSAL ARE IMPORTANT TO US. PLEASE PROVIDE YOUR INPUT ON WHAT TO ANALYZE IN THE EIS AND IF THERE ARE OTHER ALTERNATIVES TO CONSIDER AT THIS TIME.

### DESCRIPTION OF PROPOSAL:

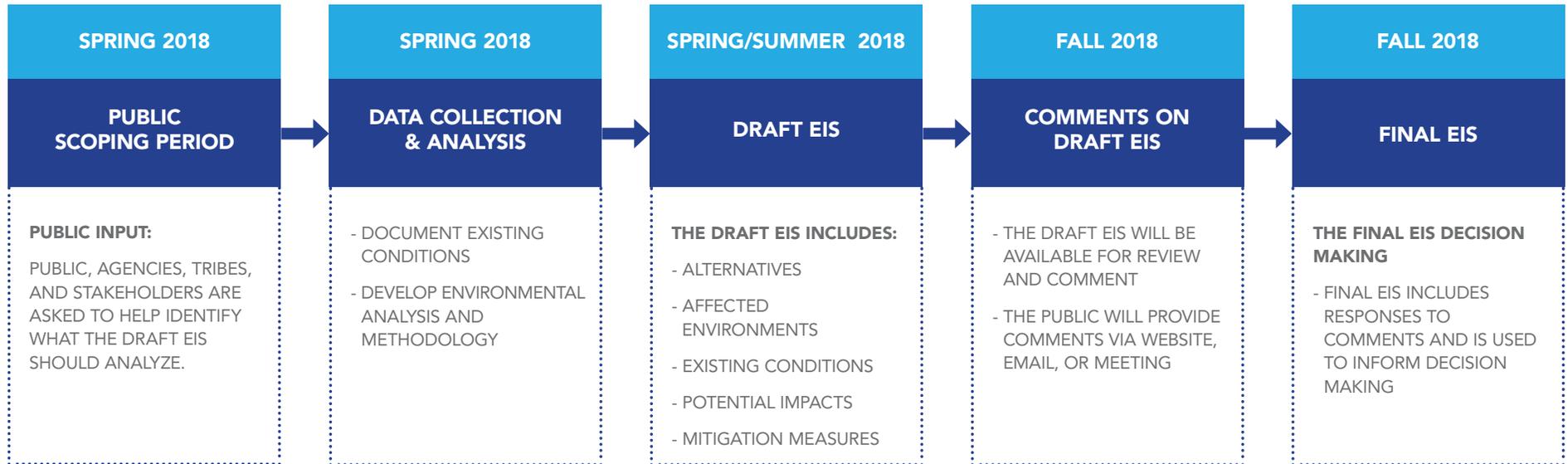
THE PREFERRED ALTERNATIVE WOULD CREATE A NEW STRUCTURE LOCATED EAST OF THE EXISTING AQUARIUM ON ALASKAN WAY AND THE FUTURE WATERFRONT PROMENADE. THE PROPOSAL WOULD BE ADJACENT TO THE CITY OF SEATTLE'S OVERLOOK WALK, ENHANCING THE PEDESTRIAN EXPERIENCE BETWEEN THE WATERFRONT AND THE PIKE PLACE MARKET. THE PROPOSED STRUCTURE WOULD INCLUDE THE DEVELOPMENT OF APPROXIMATELY 48,000 GROSS SQUARE FEET OF PUBLIC AQUARIUM EXHIBITS AND ASSOCIATED SUPPORT SPACE. ALTERNATIVES WILL BE CONSIDERED, INCLUDING THE CONFIGURATION OF THE PROPOSED STRUCTURE, PUBLIC OPEN SPACE AND ROOF TOP WATERFRONT VIEWING SPACE, AS WELL AS OPTIONS FOR AN OFF-SITE ANIMAL CARE CENTER.

# ENVIRONMENTAL REVIEW

SEATTLE AQUARIUM OCEAN PAVILION



## SEPA EIS PROCESS AND TIMELINE

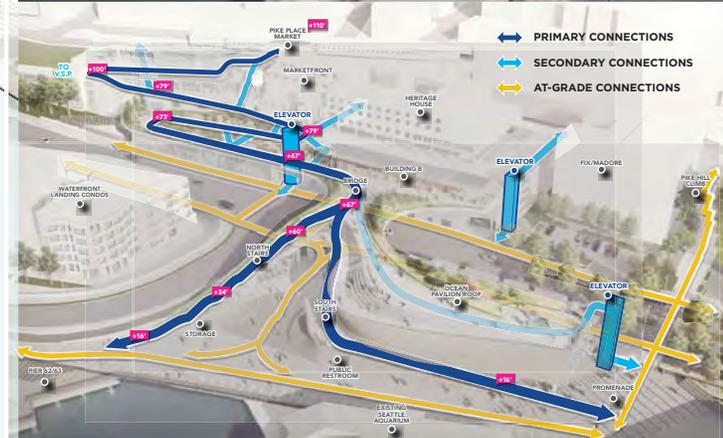


## AREAS OF THE AFFECTED ENVIRONMENT PROPOSED FOR DISCUSSION IN THE EIS



# PREFERRED ALTERNATIVE CONCEPT OVERVIEW

## SEATTLE AQUARIUM OCEAN PAVILION



NOTE:  
 -DRAWINGS REPRESENT CONCEPTUAL DESIGN OF THE AQUARIUM EXPANSION  
 -ELEMENTS OF THE CITY'S WATERFRONT PROGRAM ARE NOT PART OF THIS EIS

# PREFERRED ALTERNATIVE CONCEPT OVERVIEW

SEATTLE AQUARIUM OCEAN PAVILION



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# PREFERRED ALTERNATIVE CONCEPT OVERVIEW

## SEATTLE AQUARIUM OCEAN PAVILION



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Attachment 8

Scoping Meeting Comment Card Handout

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**REQUEST FOR COMMENTS ON THE SCOPE OF THE ENVIRONMENTAL IMPACT STATEMENT:  
Seattle Aquarium Ocean Pavilion**

The City of Seattle through Seattle Parks and Recreation (City), in coordination with the Seattle Aquarium Society (SEAS), is preparing an Environmental Impact Statement (EIS) under the State Environmental Policy Act for the Ocean Pavilion, a new structure that would include approximately 50,000 gross sq/ft of public aquarium exhibits and associated support space and would be integrated into the City of Seattle's Overlook Walk. SEAS invites members of the public, tribes, and governmental agencies to provide input on the EIS scope and to identify elements of the environment to analyze in the EIS and other alternatives to consider

**How to comment:** Scoping comments will be accepted through May 28, 2018. You can provide comments on the scope of the EIS by submitting written comments, as well as at the public scoping meeting. Provide scoping comments online at: <https://www.seattleaquarium.org/planning> or by mail: Ocean Pavilion EIS, c/o Anchor QEA, 720 Olive Way, Suite 1900, Seattle, WA 98101

Before including your name or other personal identifying information in your comment, please be aware that your entire comment—including your personal identifying information—may be made publicly available at any time.

**Comment:** \_\_\_\_\_  
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\_\_\_\_\_

**Name:** \_\_\_\_\_  
**Email:** \_\_\_\_\_  
**Phone #:** \_\_\_\_\_  
**Zip:** \_\_\_\_\_

Appendix B  
Transportation and Parking Technical  
Memorandum

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August 2018

Seattle Aquarium Ocean Pavilion

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## Transportation and Parking Technical Memorandum

**Prepared for**

City of Seattle Department of Parks and Recreation  
Seattle Aquarium Society

**Prepared by**

Heffron Transportation, Inc.

## Executive Summary

The purpose of this technical memorandum is to describe the potential impacts on transportation and parking associated with the proposed Seattle Aquarium Ocean Pavilion (Ocean Pavilion). This memorandum evaluates the potential effects of project construction and operation on these resources for two action alternatives as well as a No Action Alternative. The City of Seattle Department of Parks and Recreation, in coordination with the Seattle Aquarium Society (SEAS), is preparing a State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) to evaluate the proposal, which includes two different building options located near the existing Aquarium at Piers 59 and 60 along the Seattle waterfront and an off-site Animal Care Center that may be located on Harbor Island at the former Fisher Flour Mill or similar facility.

The construction of an "Aquarium Pavilion" was reviewed by the City of Seattle (City) as part of the Alaskan Way, Promenade, and Overlook Walk (AWPOW) SEPA EIS and AWPOW EIS *Appendix A: Transportation Discipline Report* (SDOT 2016a, 2016b). Information and analysis from the AWPOW EIS is incorporated by reference into the analysis and findings of this memorandum, in accordance with Seattle Municipal Code (SMC) 25.05.635 and Washington Administrative Code (WAC) 197-11-635.

The Ocean Pavilion is being proposed as a separate and independent project from the AWPOW and other ongoing projects along the central waterfront. However, the proposal is intended to anchor these projects and reconnect the city with Puget Sound and its central waterfront. This memorandum summarizes the relevant findings from the AWPOW EIS, describes changes to the Ocean Pavilion proposal that have occurred since that time, and evaluates whether the changes would result in any potential additional construction and long-term impacts on transportation and parking.

The findings of this analysis indicate that no significant long-term impacts to transportation or parking would result from operation of the Ocean Pavilion. The additional vehicle trips generated by additional visitors to the Aquarium would have a small effect on intersection operations nearby, but would not change overall operational level. Vehicle trips generated by the action alternatives, including the off-site Animal Care Center, would be spread out and would not have a noticeable effect on traffic operations surrounding either site. The Pike Place Market Garage, which was expanded in 2017 from 529 to 820 spaces specifically to accommodate future increases in visitors to area attractions, including the proposed Ocean Pavilion, is located adjacent to the existing Seattle Aquarium. The analysis found that there is adequate parking at the Pike Place Market Garage to accommodate the additional parking demand generated by increased visitors and employees. It is anticipated that additional visitors to the Ocean Pavilion would also generate parking demand at other private and public lots and garages throughout downtown (as visitors often include a visit to the Aquarium with visits to other downtown attractions) but there is ample capacity to accommodate the anticipated increases. Additional pedestrians, bicyclists, and transit riders would be accommodated by improvements planned by the AWPOW to support those modes of travel. The action alternatives would be designed in accordance with the City's standards for bus loading and truck deliveries; no adverse impacts related to loading would result from the Ocean Pavilion.

Construction of the action alternatives is anticipated to have impacts related to truck trips, construction employee trips and parking, and short-term lane or sidewalk closures during some elements of

construction activity. With the recommended mitigation, these impacts are anticipated to be minor to moderate. Table 1 provides a summary of impacts.

**Table 1**  
**Transportation and Parking Impacts Summary**

Alternative	During Construction	Long Term
1 (No Action)	<b>No Adverse Impact</b> No construction, therefore no construction impacts	<b>No Adverse Impact</b> No additional transportation or parking impact beyond what was previously analyzed in the AWPOW EIS
2	<b>Minor to Moderate Impact</b> Potential temporary impacts associated with truck and construction employee trips, construction employee parking, and street lane or sidewalk closures adjacent to construction activities; impacts can be reduced through implementation of a Construction Management Plan and are anticipated to be minor to moderate depending on the construction activity	<b>Minor Impact</b> Additional visitors accommodated by Alternative 2 would generate additional vehicle, transit, and non-motorized trips, which could be accommodated by existing and planned future infrastructure without the need for transportation capacity improvements, and additional vehicle parking demand which could be accommodated by available parking garage capacity
3	Same as Alternative 2	Same as Alternative 2

## Introduction and Project Description

The Ocean Pavilion would be located in Seattle, King County, Washington (Figure 1). The building would be constructed east of the existing Aquarium, and east of the future pedestrian promenade along the waterfront constructed as part of the AWPOW projects. A potential off-site Animal Care Center may be located on Harbor Island at the former Fisher Flour Mill or a similar facility (Figure 1). Three alternatives have been developed for the Ocean Pavilion: a No Action Alternative and two action alternatives. A full description of these alternatives is included in the Draft Ocean Pavilion EIS, with summary descriptions provided within this technical memorandum.



**Figure 1**  
**Vicinity Map**

## ***Alternative 1: No Action Alternative***

Under Alternative 1 (No Action Alternative), the Ocean Pavilion would not be built. However, conditions in the area would be different from those that exist at the time this EIS is published (2018). The analysis for the No Action Alternative is based on the expected conditions in 2030, which is the year used for the assessment of future conditions. The following major changes are assumed to be in place under the No Action Alternative:

- The AWPOW projects identified in the preferred alternative within the AWPOW EIS would be completed. The AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects' design process.
- The Alaskan Way Viaduct Replacement Project (AWVRP) would be completed, with the viaduct eliminated and the State Route (SR) 99 tunnel in operation.
- The Elliott Bay Seawall Project (EBSP) would be completed.
- Ongoing public and private development projects that are currently being permitted through the Seattle Department of Construction and Inspections would be completed, with an additional projected baseline growth of 1% per year.

A description of the AWPOW's selected preferred alternative is included in Section 2.3 of the AWPOW EIS (SDOT 2016a). The main difference between the two is that the No Action Alternative for Ocean Pavilion does not include construction of the "Aquarium Pavilion," which was one option described as part of the AWPOW's preferred alternative. Descriptions of the AWVRP and EBSP are described in Section 2.2 of the AWPOW EIS. Figure 2 shows the No Action Alternative, which serves as the baseline against which the potential impacts of the action alternatives are evaluated.

### ***Office of the Waterfront and Civic Projects' Potential Design Refinements***

The AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects' design process. As of the publication of this EIS, the conceptual design of the Overlook Walk lid (or bridge) connecting the waterfront to Pike Place Market over Elliott Way would be narrower (90 feet versus 190 feet) and higher (50 feet versus 40 feet) than the design in the AWPOW EIS. In addition, Building B would be replaced by a smaller one-story building with a covered outdoor café and seating area on its roof. Public stairs and elevators would maintain connections from the Overlook Walk to the waterfront. These refined conditions were used in assessing the range of impacts of the action alternatives as compared to No Action Alternative and potential design refinements.

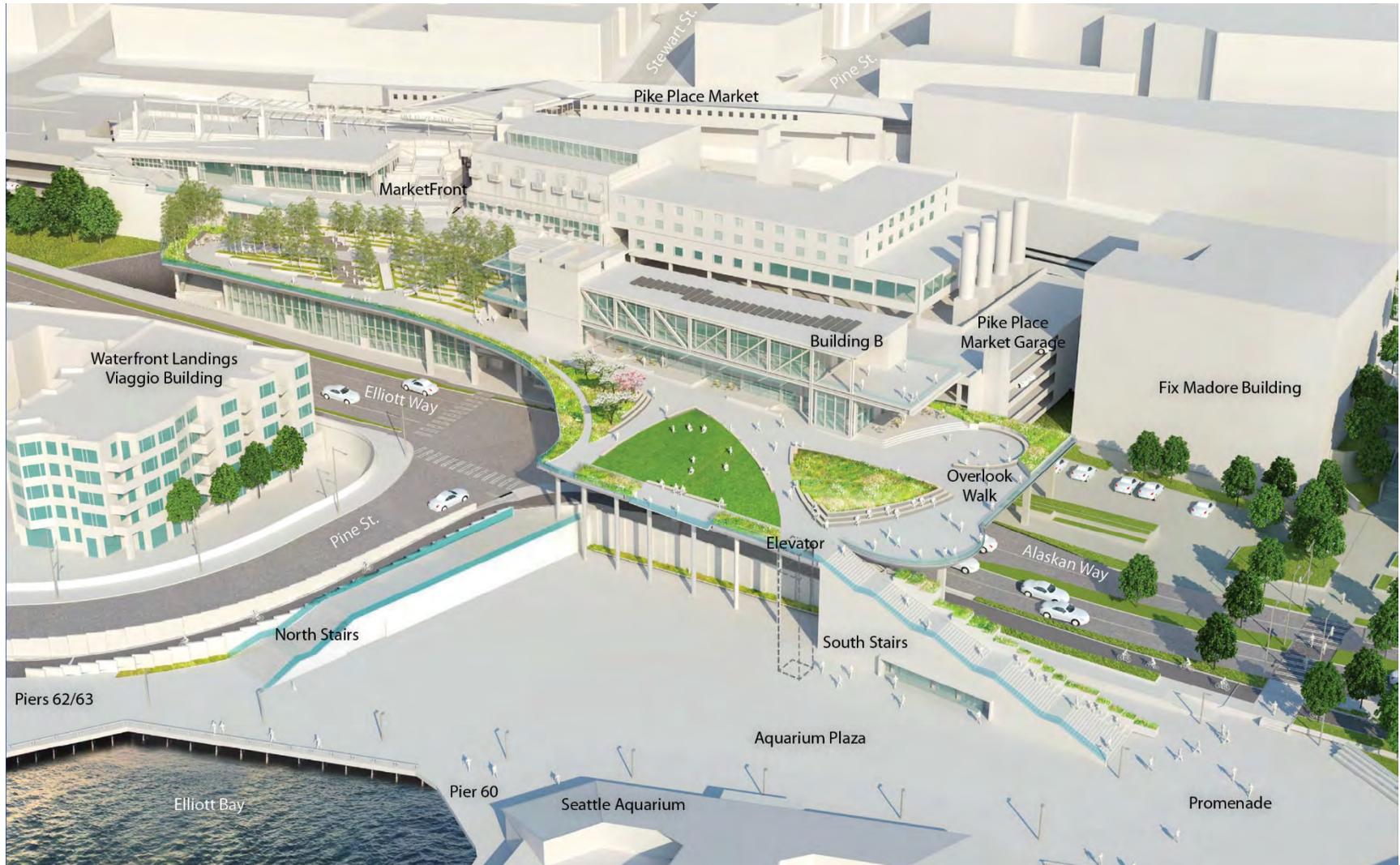
## ***Alternative 2***

Alternative 2 includes the Ocean Pavilion concept evaluated as one option for the preferred alternative under the AWPOW EIS (referred to as the "Aquarium Pavilion" in the AWPOW EIS). Alternative 2 includes an approximately 48,000-square-foot building featuring an interior elevator and connections to a fully accessible route between the waterfront and Pike Place Market. The orientation of the proposed building would locate it farther north and closer to Pine Street, compared to Alternative 3 which would be located farther south. The building would be approximately 40 feet tall with a rooftop waterfront viewing space accessible

from the Overlook Walk. An off-site Animal Care Center would be included under Alternative 2, as described herein. Figure 3 shows Alternative 2.

### *Alternative 3*

Alternative 3 includes building the Ocean Pavilion east of the existing Aquarium on Alaskan Way and the future Waterfront Promenade. The Ocean Pavilion would be located farther south than Alternative 2, resulting in a shorter distance from the Ocean Pavilion entrance to the existing Seattle Aquarium entrance and improved accessibility for visitors, volunteers, staff, and Aquarium programs. The proposed building would include an approximately 48,000-square-foot public aquarium featuring an exterior elevator and connections to a fully accessible route between the waterfront and Pike Place Market. The building would be approximately 50 feet tall with unobstructed public views of Elliott Bay over the existing Seattle Aquarium on Pier 59 and would be accessible from the future Overlook Walk. This alternative also includes an off-site Animal Care Center, as described herein. Figure 4 shows Alternative 3.



**Figure 2**  
**Alternative 1 (No Action)**

Source: LMN Architects



**Figure 3**  
**Alternative 2**

Source: LMN Architects



**Figure 4**  
**Alternative 3**

Source: LMN Architects

### ***Off-Site Animal Care Center for Alternatives 2 and 3***

An off-site Animal Care Center is proposed to address both short- and long-term animal care, veterinary, and rehabilitation needs and to meet the Association of Zoos and Aquariums' standards. The most immediate need is to provide necessary animal care to support the opening of the Ocean Pavilion and the turtle rehabilitation program. The Animal Care Center would also be a long-term care facility that supports SEAS' exhibit animal population, animal rehabilitation, and research efforts.

The Animal Care Center would be designed to meet peak animal care demand for the Aquarium exhibits and programs. This would include approximately 15,000 square feet of interior space, plus an additional 5,000 to 7,000 square feet of area surrounding the facility for outdoor animal holding, water storage, and parking. The center is intended to meet the care needs of both warm- and cold-water fish, birds and mammals, and rehabilitating animals. The center would also provide long-term care, including life support systems, with flexibility in the design to accommodate future needs.

The Seattle Aquarium plans to have the Animal Care Center constructed and operational 2 to 3 years prior to the opening of the Ocean Pavilion. This would allow for coral propagation, animal quarantine, and acclimation of the animals for the exhibits. The Aquarium has identified a potential site at the former Fisher Flour Mill property on Harbor Island, which is owned by King County. While the Fisher Flour Mill site is a potential location for the center, a similar location could be pursued. It is not anticipated that the identified impacts would differ at a similar location.

### ***Construction Methods for Alternatives 2 and 3***

Construction methods for the action alternatives are described in the following subsection. It is anticipated that construction methods would be similar for both action alternatives. During construction, access to existing utilities would be maintained for surrounding property uses.

#### ***Construction Activities***

It is anticipated that construction at the Ocean Pavilion would require the following activities:

- Open excavation for the basement of the Ocean Pavilion, which would reach about 20 feet below the ground surface, with 48-inch-diameter piles extending at various depths
  - It should be noted that for Alternative 2, the AWPOW EIS shows 60 to 80 feet of excavation proposed in this area (SDOT 2016b: Figure 10-2, page 245). It is expected that this depth is specific to the future Overlook Walk and other improvements, and depths of that magnitude would not be required to construct the Ocean Pavilion.
- Dewatering of excavation areas below the water table or implementing soil freezing treatments to provide a dry work area as necessary
- Protecting, relocating, and/or connecting utilities
- Using best management practices to protect water quality and reduce erosion (may include installation of silt fencing, covering of stockpiled soil, and collection and treatment of construction stormwater runoff)
- Drilling shafts for piers to support the building, including exterior elevators or stairwells as necessary

- Removing existing knock-outs in the adjacent seawall under Pier 60 to connect the overwater intake pipe, seawater discharge, and utilities and infrastructure between the Ocean Pavilion and existing Seattle Aquarium buildings
- Erecting structural components and installing mechanical and other building features, using a crane tower for hoisting
- Potentially using one barge for 3 to 8 weeks, located between Piers 62/63 and Pier 60 for delivery of acrylic windows for the exhibits

Construction at the Animal Care Center would be limited to the building interior. No substantial modifications or new construction would be required to the exterior or surrounding areas.

### ***Construction Staging***

It is anticipated that areas within or near the proposed action (e.g., Aquarium Plaza) would be used for staging construction and storing materials, equipment, and temporary construction trailers.

### ***Construction Timing***

Construction of the Ocean Pavilion is expected to take up to approximately 4 months for early foundation work and 24 months for general construction. Preparation of the off-site Animal Care Center is expected to take approximately 9 months and would occur in advance of construction of the Ocean Pavilion.

### ***Worker Parking, Access, and Haul Routes***

The Ocean Pavilion contractor is expected to establish a worksite office, which could be located in existing office space near the Seattle Aquarium or in a mobile facility in the established laydown area or nearby. A limited number of construction workers may be able to park at the worksite office or on the work site, others could use off-street parking garages near the Aquarium, and some may use transit and walk to the work site. The Animal Care Center contractor is anticipated to establish a construction office in existing space within the building that would house the Animal Care Center. Very little parking demand is expected to be generated during build out of the Animal Care Center.

Construction activities would generate traffic for equipment and removing debris and soil. The contractor would determine the best construction methods, as permitted by the City and in conformance with the project construction plans.

## **Regulatory Context**

Transportation facilities and functions are governed by state, regional, and local laws, plans, and policies that identify infrastructure needs, priorities, and performance standards for the transportation system elements, including pedestrian, bicycle, vehicular, and transit modes. The following laws, plans, and policies apply to the transportation and parking analysis.

## *State Laws, Plans, and Policies*

### ***State Environmental Policy Act***

The SEPA process considers short- and long-term direct and indirect impacts as well as cumulative impacts on transportation (WAC 197-11-060 and WAC 197-11-444).

### ***Washington State Growth Management Act***

Established under Revised Code of Washington 37.70A.070, the Growth Management Act (GMA) sets goals and provides guidance for state and local governments to manage Washington's population and employment growth, including identifying and funding the transportation infrastructure and services needed to support it. The GMA includes a set of planning goals that local governments use to guide planning efforts, through the establishment of comprehensive plans and development regulations. Seattle's Comprehensive Plan, including its Transportation Element (described herein), was developed in compliance with the GMA. In addition to establishing long-term planning needs, the GMA requires that local governments and agencies to annually prepare and adopt a 6-year transportation improvement program, which must be consistent with the transportation element of the local comprehensive plan as well as other state and regional plans and policies.

## *Regional Plans and Policies*

### ***Puget Sound Regional Council, Transportation 2040***

Transportation 2040 is the region's long-range transportation plan developed by the Puget Sound Regional Council (PSRC 2010). It addresses critical issues such as congestion and mobility, the environment, and transportation finance in the central Puget Sound region. The plan calls for improved mobility through a combination of effective land use planning, demand management, efficiency enhancements, and strategic capacity investments. It lays out strategies to guide transportation investment decisions to meet growing travel needs for people and freight, calling for more transit, biking and walking facilities, and more complete streets. The plan lays out strategies for all modes, including local roads, non-motorized transportation, vehicle and passenger ferries, aviation, and rail.

## *Local Plans and Policies*

### ***Seattle Municipal Code 25.05 (Environmental Policies and Procedures)***

The City has established rules to implement SEPA under SMC Chapter 25.05. For projects in which the City is the lead SEPA agency, these rules interpret and administer the SEPA policies, regulations, and laws set forth by the State of Washington. The City's SEPA regulations about parking impacts are included in SMC 25.05.675.M, and regulations about traffic and transportation impacts in SMC 25.05.675.R.

### ***Seattle 2035: A Comprehensive Plan for Managing Growth 2015-2035***

The Seattle Comprehensive Plan identifies the City's land use strategy for accommodating future job and housing growth, and shows how transportation infrastructure, policies and programs will be developed to ensure that the transportation system can efficiently support that growth; this includes mode shift goals

that promote a transition away from single-occupant vehicles toward walking, biking, transit, and carpools. The City has developed a number of plans that focus on specific transportation modes, as described in the following sections. These more focused plans are all consistent with the Comprehensive Plan and build on the policy framework it establishes (City of Seattle 2016).

### ***Seattle Bicycle Master Plan***

The City's Bicycle Master Plan sets forth a vision that riding a bicycle be a comfortable and integral part of daily life in Seattle for people of all ages and abilities; it provides a blueprint to make it easier to decide to ride a bike. The plan identifies existing and recommended future trails, bicycle lanes, shared use facilities, and neighborhood greenways (SDOT 2014). The Implementation Plan, which is typically updated on an annual basis, identifies the master plan projects that are targeted for completion within the next 5 years (SDOT 2017a). The installation of protected bicycle lanes (PBLs) along Alaskan Way is included in the Bicycle Master Plan (SDOT 2014). The current Implementation Plan identifies construction of PBL connections along the Alaskan Way Corridor, south to South King Street and north to the Elliott Bay Trail, with target completion by 2020 or 2021 (SDOT 2017a). The bicycle facilities along Alaskan Way are part of the AWPOW projects.

### ***Pedestrian Master Plan***

The City's *Pedestrian Master Plan* defines the actions needed to improve walkability in Seattle. The pedestrian improvements included in the AWPOW projects support the plan's objectives to complete and maintain the citywide pedestrian system, improve walkability and pedestrian safety on all streets, and to get more people walking for transportation, recreation, and health reasons (SDOT 2017b).

### ***Transit Master Plan***

Seattle's *Transit Master Plan* (SDOT 2016c) defines the critical role that transit plays in meeting the City's goals related to sustainability, equity, economic productivity, and livability. Developed with feedback from King County Metro (Metro) and Sound Transit, the *Transit Master Plan* identifies the types of transit facilities, services, programs, and system features that will be required to meet Seattle's transit needs through 2030, based on market analysis, review of future growth patterns, and evaluation of transit needs.

The *Transit Master Plan* also identifies Seattle's Frequent Transit Network (FTN), which is a vision for a network of transit corridors that connect the city's urban centers and villages with frequent, reliable transit service within a short walk for most residents and identifies the corridor as a high priority for transit investments (SDOT 2016c). Downtown Seattle is the largest transit hub in the region, and continued transit improvements along the FTN will serve to improve transit connectivity between the Aquarium and regional destinations.

## **Affected Environment**

### ***Transportation Study Area***

The study area for the transportation and parking analysis, shown in Figure 5, includes the site access points (vehicular and non-motorized) and nearby off-site intersections in the area bounded by Alaskan Way to the west, Lenora Street to the north, Western Avenue to the east, and Union Street to the south.

The Pike Place Market Garage, located across the street from the Aquarium, provides the nearest available public parking. This parking facility includes the original garage combined with the garage expansion that was completed in 2017 as part of the MarketFront project. The garages connect internally and share driveways on Western Avenue and Alaskan Way; together they have 820 spaces. It should be noted that the 2030 analysis presented in this memorandum reflects conditions with the completion of the AWPOW projects, as shown in Figure. 5 The planned street configuration changes are described in the following section.

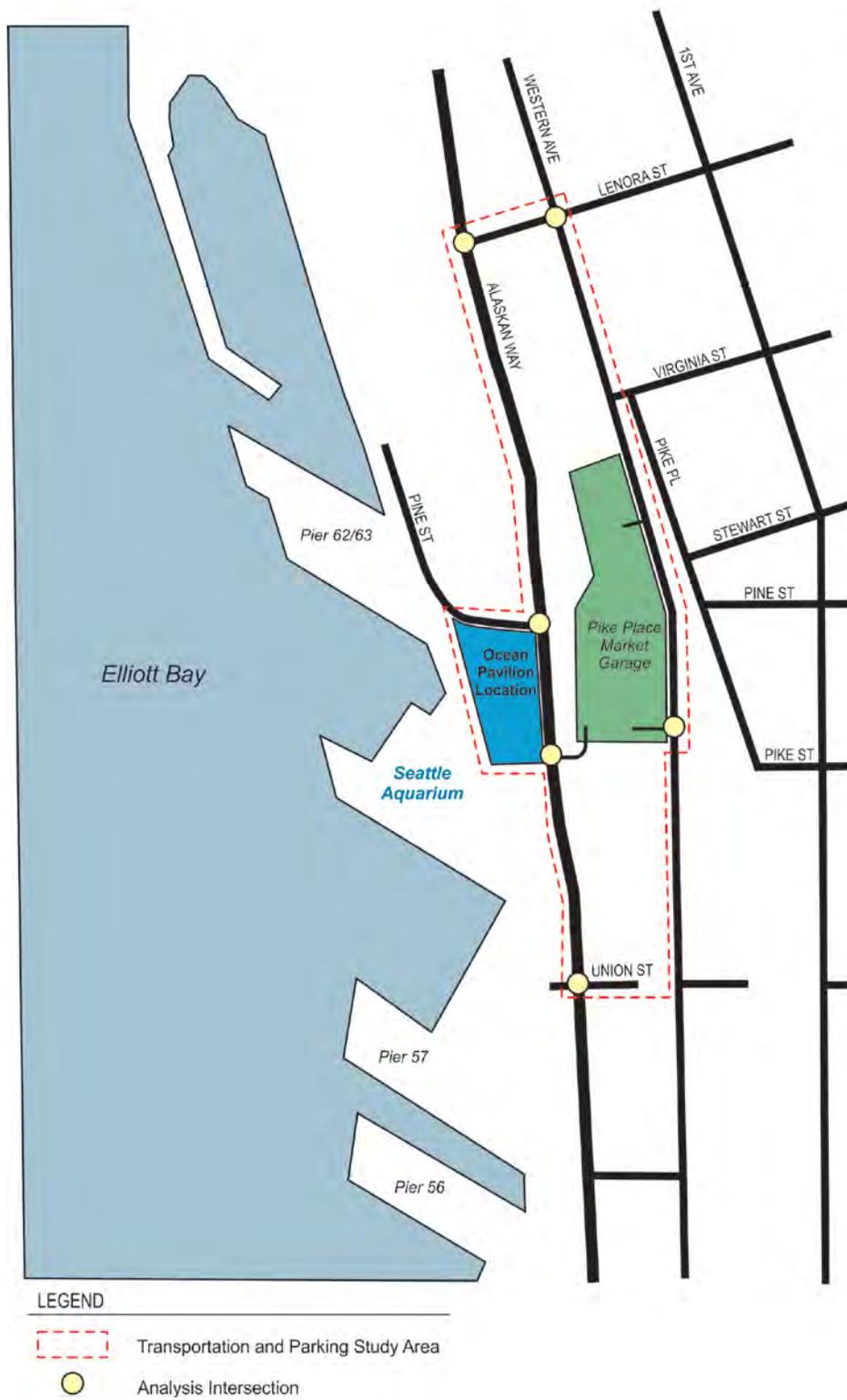
### **Street Characteristics**

The following key roadways are within the transportation study area:

- **Alaskan Way** is a Principal Arterial that is oriented roughly parallel to the waterfront between Broad Street to the north and Yesler Way to the south. It will be reconfigured as part of the AWPOW projects; when complete, it will have two vehicle lanes in each direction, sidewalks on both sides, and a two-way PBL on the east side.
- **Western Avenue** is a Minor Arterial that is parallel to Alaskan Way, one block to the east. Between Lenora Street and Yesler Way, it has one travel lane in each direction with left-turn pockets at some intersections; on-street parking is allowed along much of its length. It has sidewalks on both sides and is marked with a combination of painted bicycle lanes where street width allows (generally in the uphill direction), and sharrows (pavement markings that indicate vehicles and bicyclists should share the travel lane) along the other portions. North of Lenora Street, it becomes a one-way street in the northwest direction, forming a couplet with Elliott Avenue which carries traffic in the southeast direction. The transition between these segments will be reconfigured with completion of the AWPOW project, which includes a new Elliott Way Connector between Western Avenue at Bell Street and Alaskan Way at Pine Street.
- **Lenora Street** is a Minor Arterial that provides connection between Western Avenue and Denny Way. It has a southwest-northeast orientation. Between First Avenue and Western Avenue, it has one travel lane in each direction, sidewalks on both sides, and angled parking on the south side. East of First Avenue, Lenora Street is a one-way in the southwest direction. Its intersection with Western Avenue is signalized and will remain so with the intersection reconfiguration that is completed with the AWPOW projects. The Lenora Street pedestrian bridge connects from Elliott Avenue at the top of the bluff to the Pier 66 building, with elevators connecting to grade on the east and west sides of Alaskan Way. With the completion of the AWPOW projects, the pedestrian bridge will remain largely intact, with just the east end rebuilt to connect to the new segment of Elliott Way. There is an existing pedestrian signal across Alaskan Way at Lenora Street.
- **Pine Street** has a short segment within the study area designated as a local access street that provided access to some on-street parking across Alaskan Way from Piers 62/63 prior to the construction of the AWPOW projects. The segment of Pine Street near the Aquarium will also be reconfigured with AWPOW, providing direct local access to Piers 62/63 on the west side of Alaskan Way; its intersection with Alaskan Way will be signalized. The study area does not include the portion of Pine Street east of Pike Place Market.
- **Union Street** within the study area is also separated from the primary portion that connects downtown and Capitol Hill. There is a stairway for pedestrians that provides a connection from just

west of First Avenue to Alaskan Way, but no through vehicular access is provided. The intersection of Union Street and Alaskan Way will be improved with the AWPOW projects; the grade separation will remain, with a stair and elevator connection for pedestrian traffic, and it will continue to provide local access. Its intersection with Alaskan Way is currently signalized and will remain so with completion of the AWPOW projects.

The transportation analysis reflects expected conditions in 2030, which is the year used for the assessment of future conditions, including the completion of the AWPOW projects. In addition to the transportation improvements described previously, the AWPOW projects will also signalize the intersection of the Pike Place Market Garage driveway at Alaskan Way, adjacent to the proposed action.



**Figure 5**  
**Transportation and Parking Study Area with Completion of AWPOW Projects**

Source: Heffron Transportation, July 2018

**Parking Characteristics**

The Seattle Aquarium does not have dedicated on-site parking. All parking is provided off site by surface parking lots and garages throughout downtown as well as on-street parking. Most of the existing on-street parking along Alaskan Way will be eliminated by the AWPOW projects.

As part of the Washington State Department of Transportation’s SR 99 Tunnel Project Parking Mitigation Program, off-street parking utilization of surface lots and garages along the waterfront and in Pioneer Square is monitored annually (WSDOT and SDOT 2018). Monitoring is conducted for a weekday condition in late summer because that is when commuters and visitors combine to generate the highest level of parking demand. The SR 99 Tunnel Project Parking Mitigation Program area extends approximately from Alaskan Way to First Avenue and from Wall Street to King Street.

Table 2 summarizes the results of monitoring surveys that were conducted over the period between August 22 and 31, 2017; all counts were performed on midweek days when the cumulative parking demand generated by downtown employees and visitors is highest. In addition to the Pike Place Market Garage within the study area (the nearest available public parking), results are shown for the broader SR 99 Tunnel Project study area, and also for facilities that are located within about 0.25 mile walking distance from the Seattle Aquarium.

As shown, parking occupancy (number of vehicles parked divided by the number of parking spaces) in the Pike Place Market Garage was 29% in the morning and 50% in the afternoon. In the SR 99 Tunnel Project Parking Mitigation Program area, it was 58% in the morning and 71% in the afternoon (WSDOT and SDOT 2018). In the smaller area within 0.25 mile of the Aquarium, occupancy was slightly lower in the morning and slightly higher in the afternoon. During the peak afternoon period when occupancy was highest, there were more than 500 unused parking spaces within 0.25 mile of the Seattle Aquarium, most in the adjacent Pike Place Market Garage.

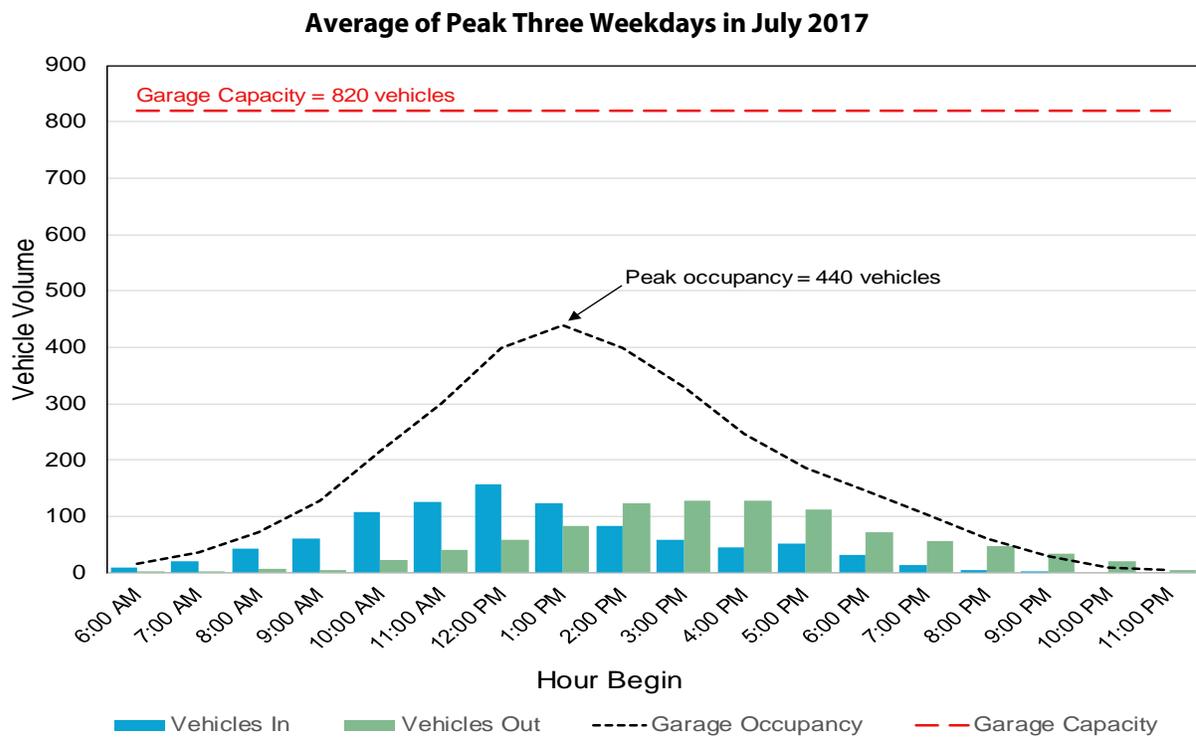
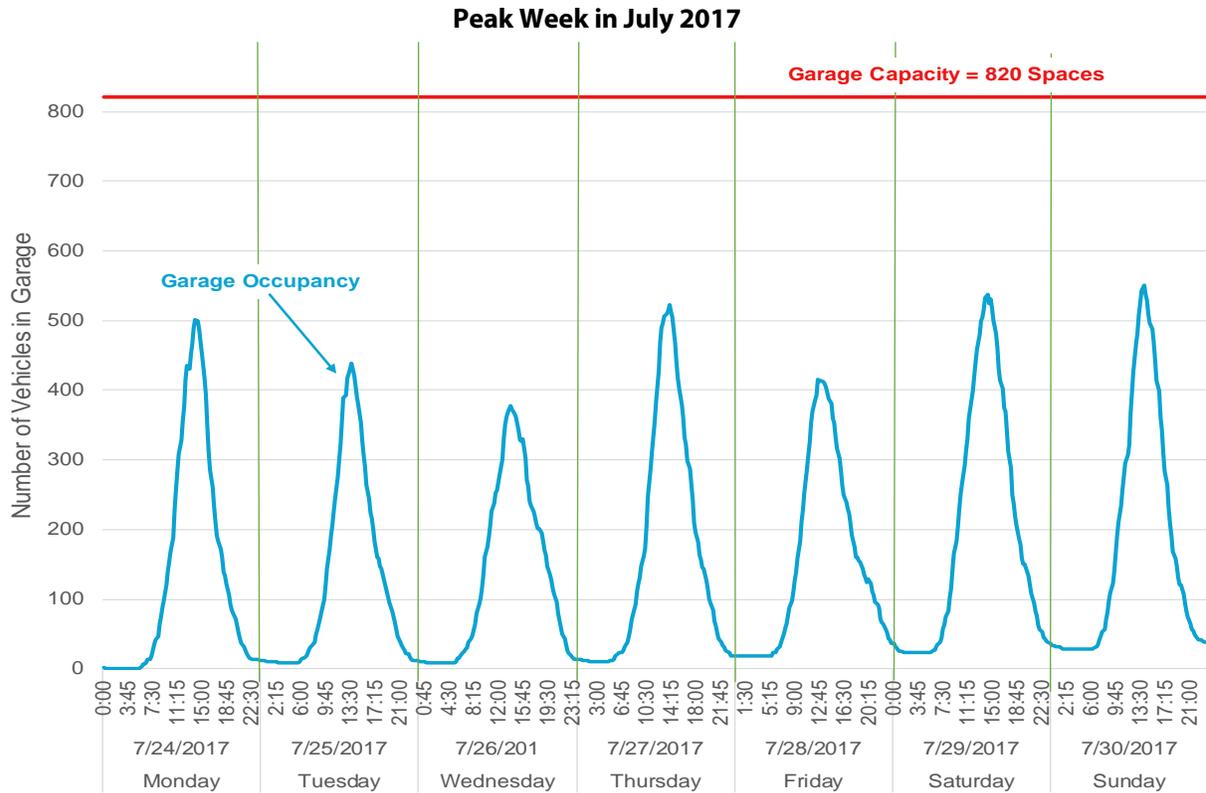
**Table 2  
 Parking Garage Occupancy – Weekdays**

	SR 99 Tunnel Project Parking Mitigation Program Area <sup>1</sup>	Within .25 Mile Walking Distance of Aquarium <sup>2</sup>	Pike Place Market Garage <sup>2</sup>
<b>Parking Supply (Number of Stalls)<sup>3</sup></b>	<b>7,158</b>	<b>2,021</b>	<b>820</b>
<b>Morning (8:30 to 11:30 a.m.)</b>			
Parking Occupancy	58%	50%	29%
Unused Spaces	3,036	1,016	585
<b>Afternoon (1:00 to 3:00 p.m.)</b>			
Parking Occupancy	71%	70%	50%
Unused Spaces	2,087	598	406

Source: Heffron Transportation, *SR 99 Tunnel Project – Parking Mitigation Plan, Monitoring of Off-Street Parking Facilities*, 2017.  
 Notes: Counts were performed in August 2017 (included in WSDOT and SDOT 2018).

1. Area bounded generally by Alaskan Way, Wall Street, First Avenue, and South King Street
2. The area within 0.25 mile walking distance is a subarea included in the Parking Mitigation Program Study Area; the Pike Place Market Garage is included in each of these larger areas.
3. Supply was adjusted to include 91 additional spaces at the Pike Place Market Garage that were still under construction during the monitoring period, but now are open and available for general parking

More detailed analysis was completed for the Pike Place Market Garage, which is located within the study area directly across Alaskan Way from the Aquarium and provides the closest public parking. A full month of driveway entry and exit data were compiled for July 2017, and the last week in that month had the highest volumes. Figure 6 shows the parking accumulation by day of week. As shown, Saturday and Sunday had slightly higher occupancy than the peak weekday. This is expected at Pike Place Market, which attracts local and regional visitors on weekends. However, throughout the rest of downtown, the volume of weekend parking is much lower than on a weekday. The City's *2016 Downtown Off-Street Parking Study, Supply and Occupancy Survey in June 2016* determined that all off-street parking in Seattle's downtown core areas (including the financial district, retail district, and waterfront) was 69% to 71% occupied during the weekday but decreased to 43% on a Saturday (Heffron Transportation 2017). Because the cumulative demand among downtown office and recreational parking is highest overall on weekdays, the peak weekday condition was evaluated for the Ocean Pavilion alternatives. Figure 6 shows the average hourly garage entries and exits for three peak-season weekdays as well as parking occupancy. As shown, during the peak three weekdays in July, the Pike Place Market Garage had an average occupancy of 440 vehicles, with a peak occurring midday. This is about half of the garage's capacity of 820 parking stalls. Even on the peak season weekday, more than 300 parking stalls were unused during the period of highest parking demand.



**Figure 6**  
**Pike Place Market Garage – Hourly Use on Peak Season Weekday**

Source: Pike Place Market Garage Usage Data for July 2017, compiled by Heffron Transportation, June 2018

### ***Transit Characteristics***

Downtown serves as the largest transit hub in Seattle, with bus transit, light rail, streetcar, commuter rail, ferries, and water taxis all servicing this area (King County Metro 2018a).

Bus transit service in Seattle is primarily provided by Metro and Sound Transit. Snohomish County's Community Transit and Pierce County's Pierce Transit also provide limited bus service to and from Seattle, typically during the weekday commute periods. Metro has implemented ongoing plans to enhance transit service along high-demand corridors with RapidRide bus service, which provides frequent two-way bus service along high-demand routes, with amenities that include buses with low floors to facilitate faster passenger loading and unloading, ORCA card readers at stations that allow riders with cards to pay before they board, and electronic signs that provide arrival time information (King County Metro 2018b). Metro is evaluating re-establishing transit along Alaskan Way to replace service on SR 99 that will be lost with the removal of the Alaskan Way Viaduct. There are several options being evaluated, including extending other routes to this corridor.

The Seattle Streetcar provides fixed-guideway service between Westlake and South Lake Union, and between Pioneer Square and Capitol Hill. The City's Center City Connector project plans to connect these two separate systems with a streetcar line along First Avenue and Stewart Street in downtown Seattle. Construction of the connector is being reviewed and could be resumed after the Alaskan Way Viaduct demolition is complete.

Sound Transit operates Link light rail service that serves downtown Seattle. The light rail connects the University of Washington and Angle Lake, with stops in the Capitol Hill, downtown, Central Seattle, and South Seattle neighborhoods, as well as SeaTac Airport. Light rail service will be extended north to the University District, Roosevelt, and Northgate neighborhoods in 2021, and north to Lynnwood by 2024. East Link will extend light rail service to Overlake in 2023. Additional light rail lines have been approved as part of Sound Transit's ST3 program, with the largest element of that plan creating new lines to Ballard and West Seattle and a new transit tunnel through downtown Seattle scheduled to open in 2035. Sound Transit also operates the Sounder commuter rail service, which operates Monday through Friday during commute peak hours. In Seattle, the Sounder trains stop at the King Street Station, downtown at South King Street and Second Avenue South. Sounder trains travel between Lakewood and Seattle and between Everett and Seattle (Sound Transit 2018).

Washington State Ferries operates ferry service accommodating both vehicle and walk-on traffic. Two ferry routes operate from the Colman Dock Terminal in downtown Seattle: the Seattle-Bainbridge ferry and the Seattle-Bremerton ferry. Metro operates the King County Water Taxi, which provides service between Pier 50 at the Seattle waterfront to West Seattle and Vashon Island. The ferry and water taxi terminals are about 1,500 feet walking distance from the Seattle Aquarium.

### ***Non-Motorized Characteristics***

Very high levels of bicycle and pedestrian activity characterize the downtown and waterfront areas. The downtown sidewalk system is generally complete. Marked crosswalks with pedestrian crossing signals are provided at all signalized intersections. The City has constructed PBLs along Second Avenue and continues

to implement bicycle facility improvements throughout the downtown area. In addition to PBLs, the AWPOW projects include constructing pedestrian enhancements along the waterfront such as crossing improvements, buffers between pedestrian and vehicle travel ways, and pedestrian amenities along the sidewalks. The Alaskan Way non-motorized improvements will also provide connection between the sections of the Elliott Bay Trail located along the waterfront to the north and south of the corridor.

## **Analysis of Impacts and Mitigation**

### *Overview*

This section incorporates by reference the analysis completed for the AWPOW – Preferred Alternative (SDOT 2016a), which reflects 2030 transportation conditions for Alternative 1 (No Action Alternative) for the Ocean Pavilion. Refined Alternative 1 would have no differences in transportation or parking characteristics or impacts as compared to what was studied in the AWPOW EIS; therefore, when comparing action alternatives with Alternative 1, there is no change to the Office of Waterfront and Civic Projects' Potential Design Refinement. This section also incorporates analysis completed for the Pike Place Market Garage expansion (Heffron Transportation 2013), which found that no significant transportation or parking impacts would result from the expanded garage at full occupancy.

Construction of the Ocean Pavilion under the action alternatives may have impacts related to truck trips, construction employee trips and parking, and short-term lane or sidewalk closures during some elements of construction activity. With the recommended mitigation, these impacts during construction are anticipated to be minor to moderate. Construction activities associated with the Animal Care Center would generate a small number of trucks that would be spread out and would not have a noticeable effect on traffic operations. Construction-generated parking for the Animal Care Center would be accommodated on site and would not result in adverse impacts. No long-term operational impacts are anticipated to result from the action alternatives, or the Animal Care Center.

### *Impact Thresholds*

The transportation and parking impact analysis considers the long-term effects the Ocean Pavilion could have on elements of the transportation system that include the different modes of travel visitors may use to access the Ocean Pavilion, including walking, biking, driving, or taking transit. The short-term impacts on these transportation elements resulting from construction activities is also considered. The degree of impact depends on both quantitative and qualitative assessments. Table 3 describes the impact indicators for transportation and parking. Based on a combination of quantitative and qualitative assessments, the degree of impact is determined as minor, moderate, or significant.

**Table 3**  
**Impact Thresholds for Transportation and Parking**

Impact Indicators	Criteria Determining Degree of Impact
<b>Long-Term Operations</b>	
Intersection LOS	<p><b>Minor Impacts:</b> Increase in delay small enough that LOS does not change</p> <p><b>Moderate Impacts:</b> Increase in delay changes LOS, but does not result in congested conditions, or small increase in delay at already-congested location</p> <p><b>Significant Impacts:</b> For signalized intersections, increase in delay changes operation from uncongested to congested condition, or adds more than 5 seconds of delay to an already congested condition; for unsignalized intersections, increase in delay results in long queues that affect other operations</p>
Site Access and Circulation	<p><b>Minor Impacts:</b> Same as intersection (above) at vehicular access points, loading needs adequately accommodated</p> <p><b>Moderate Impacts:</b> Same as intersection (above) at vehicular access points, loading needs adequately accommodated</p> <p><b>Significant Impacts:</b> Same as intersection (above) at vehicular access points, and/or loading needs not adequately accommodated</p>
Parking	<p><b>Minor Impacts:</b> Increases in parking demand could be accommodated with existing Pike Place Market Garage capacity</p> <p><b>Moderate Impacts:</b> Increases in parking demand could exceed Pike Place Market Garage capacity, but could be accommodated by other parking capacity within the SR 99 Tunnel Parking Mitigation Program Area (see Table 2) and/or parking management measures</p> <p><b>Significant Impacts:</b> Increases in parking demand could not be accommodated by capacity within the SR 99 Tunnel Parking Mitigation Program Area (see Table 2) parking capacity or through parking management measures</p>
Transit	<p><b>Minor Impacts:</b> Little to no increase in transit demand</p> <p><b>Moderate Impacts:</b> Increase in transit demand could be accommodated with existing and/or planned future service</p> <p><b>Significant Impacts:</b> Increase in transit demand could not be accommodated with existing and/or planned future service</p>
Non-Motorized	<p><b>Minor Impacts:</b> Little to no increase in non-motorized demand</p> <p><b>Moderate Impacts:</b> Increase in non-motorized demand could be accommodated with existing and/or planned facilities</p> <p><b>Significant Impacts:</b> Increase in non-motorized demand could not be accommodated with existing and/or planned facilities</p>
<b>Short-Term Construction</b>	
Truck and Employee Trips	<p><b>Minor Impacts:</b> Construction traffic would have a negligible effect on traffic operations</p> <p><b>Moderate Impacts:</b> Construction traffic would be noticeable to adjacent residents or businesses but would have small effect on peak hour traffic operations</p> <p><b>Significant Impacts:</b> Construction traffic would worsen peak hour congestion and could not be shifted to off-peak times</p>

Impact Indicators Criteria Determining Degree of Impact	
<b>Long-Term Operations</b>	
Employee Parking	<p><b>Minor Impacts:</b> Construction-generated parking demand could be accommodated on the site, or through implementation of parking management measures, without affecting public parking</p> <p><b>Moderate Impacts:</b> Construction-generated parking demand could extend to off-site parking and have modest effect on public parking</p> <p><b>Significant Impacts:</b> Construction-generated parking demand could not be accommodated on-site parking, or through parking management measures, and would adversely affect public parking in area</p>
Street Lane or Sidewalk Closures	<p><b>Minor Impacts:</b> Closure would have little to no effect on vehicular or non-motorized travel</p> <p><b>Moderate Impacts:</b> Closure would affect vehicular or non-motorized travel, but could be accommodated with a detour</p> <p><b>Significant Impacts:</b> Closure would affect vehicular or non-motorized travel and could not be accommodated with a detour</p>

Note:  
LOS: level of service

### *Long-Term Impacts and Mitigation Measures*

The transportation and parking impact analysis considers the long-term effects the Ocean Pavilion could have on elements of the transportation system that include the different modes of travel visitors may use to access the Seattle Aquarium, including walking, biking, driving, or taking transit. The degree of impact depends on both quantitative and qualitative assessments. Based on a combination of quantitative and qualitative assessments, the degree of impact is determined as minor, moderate, or significant. These potential impacts are described in the following sections.

#### **Traffic Volume Impacts**

Traffic volume impacts were analyzed by estimating visitor and employee trips as well as travel mode, average vehicle occupancy, and parking data to determine changes likely to occur at peak volumes.

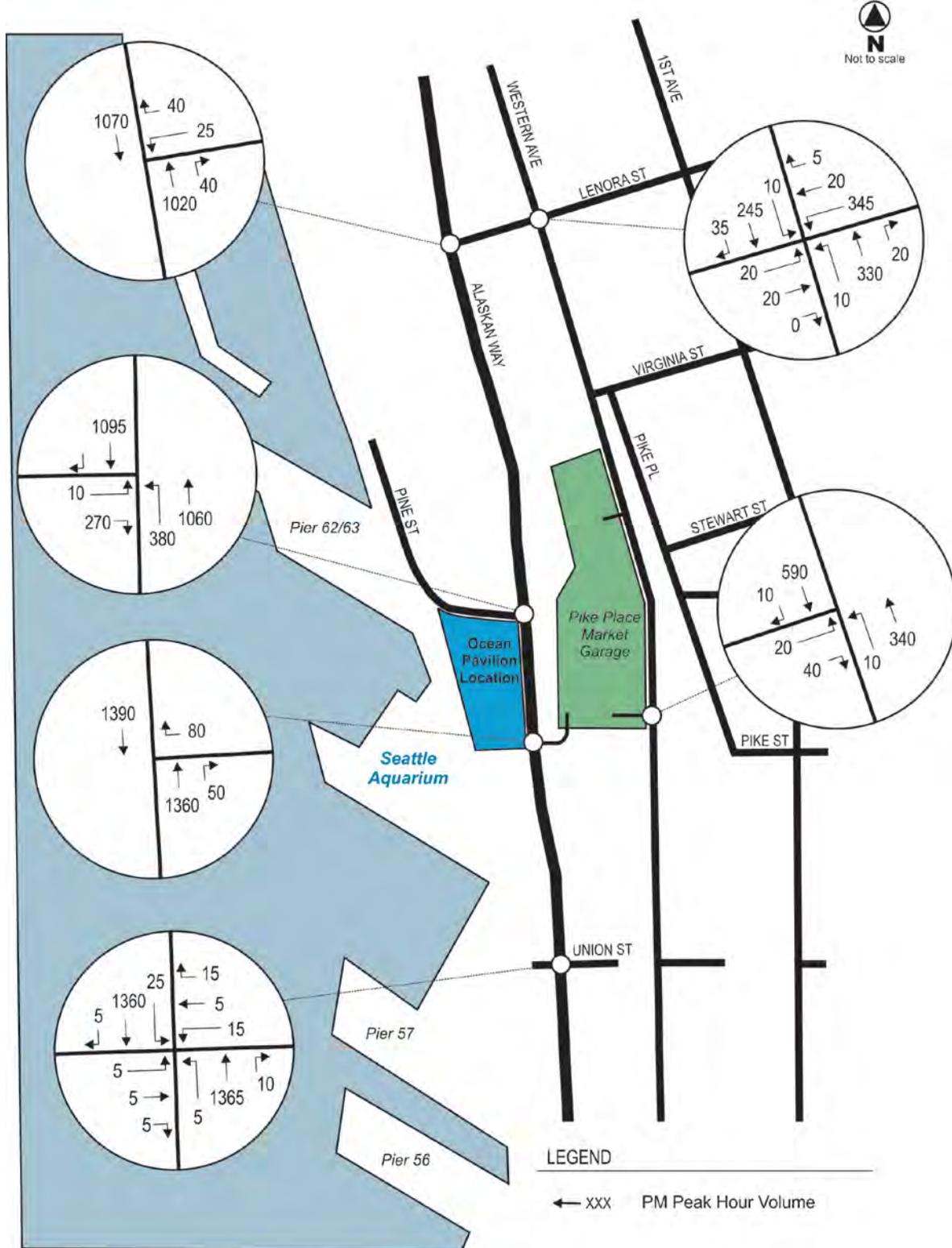
#### **Alternative 1: No Action Alternative**

Alternative 1 PM peak hour volumes at the study area intersections were obtained from Section 3.4.2 of the AWPOW EIS (SDOT 2016a) and reflect the AWPOW's selected preferred alternative in 2030 without the proposed Ocean Pavilion. The forecast volumes at the Pike Place Market Garage driveways were refined based on the July 2017 usage data, previously described, and analysis that was completed for the garage expansion (Heffron Transportation 2013). The forecast volumes at the Pike Place Market Garage driveways used in that analysis assumed traffic associated with the increased garage capacity and reflected growth in area visitors as well as vehicles that may be displaced from nearby on-street parking. Some of this growth could be associated with the existing Aquarium.

The AWPOW traffic volume forecasts reflect removal of the viaduct, completion of the SR 99 tunnel, and completion of the Alaskan Way reconstruction including the Elliott Way Connection that will link Alaskan Way to Elliott and Western avenues. They also account for expected tolls to use the SR 99 tunnel. This basis for the traffic volume forecasts is consistent with the methodology used for the Waterfront

Seattle Framework Plan traffic analysis, which was used to establish the lane configuration for the Preferred Alternative described in the AWPOW EIS. Sensitivity analysis completed for the AWPOW projects of the effect of different SR 99 tunnel tolling rates indicated that the travel demand forecasts represent a conservatively high estimate of travel demand volumes. They reflect summer conditions, which is also at the conservatively high end of the potential range of volumes.

Figure 7 shows the projected 2030 PM peak hour volumes for Alternative 1.



**Figure 7**  
**2030 Traffic Volumes for Alternative 1 – PM Peak Hour**

Source: Heffron Transportation, July 2018

### Alternatives 2 and 3

The action alternatives reflect different configurations of the Ocean Pavilion; however, it is anticipated that the future visitor volumes with the Ocean Pavilion, and in turn the trips they would generate to and from the facility, would be the same for both alternatives.

Traffic forecasts for the action alternatives were based on existing and projected future Aquarium visitor data (Orca Consulting 2018) combined with visitor travel survey data collected by the Seattle Aquarium (Seattle Aquarium 2015).

Table 4 summarizes the existing visitor volumes for the design day (typical) and peak days, and the future visitor volumes projected with the addition of the Ocean Pavilion. It is likely that some level of increase would occur without the Ocean Pavilion, but for the purpose of this analysis, the increased traffic volumes are conservatively attributed entirely to the two action alternatives. Overall, future visits are expected to increase by slightly more than 40% compared to existing conditions. Over the 12-year horizon evaluated for this transportation study, that relates to an annual growth rate of 2.9% per year.

**Table 4**  
**Existing and Projected Future Aquarium Visitors by Hour of Day**

Time Period	Existing <sup>1</sup>		Future with Ocean Pavilion		Visitor Increase	
	Design Day	Peak Day	Design Day	Peak Day	Design Day	Peak Day
<b>Daily Attendance</b>	<b>4,180</b>	<b>5,280</b>	<b>5,900</b>	<b>7,470</b>	<b>1,720</b>	<b>2,190</b>
<b>Hourly Attendance</b>						
9 – 10 a.m.	237	300	335	424	98	124
10 – 11 a.m.	361	457	510	646	149	189
11 a.m. – 12 p.m.	541	684	764	967	223	284
12 – 1 p.m.	506	639	714	904	208	265
1 – 2 p.m.	585	739	826	1,046	241	307
2 – 3 p.m.	762	962	1,075	1,361	313	399
3 – 4 p.m.	633	799	893	1,131	260	332
4 – 5 p.m.	465	588	657	831	191	244
5 – 6 p.m.	89	112	125	159	37	47

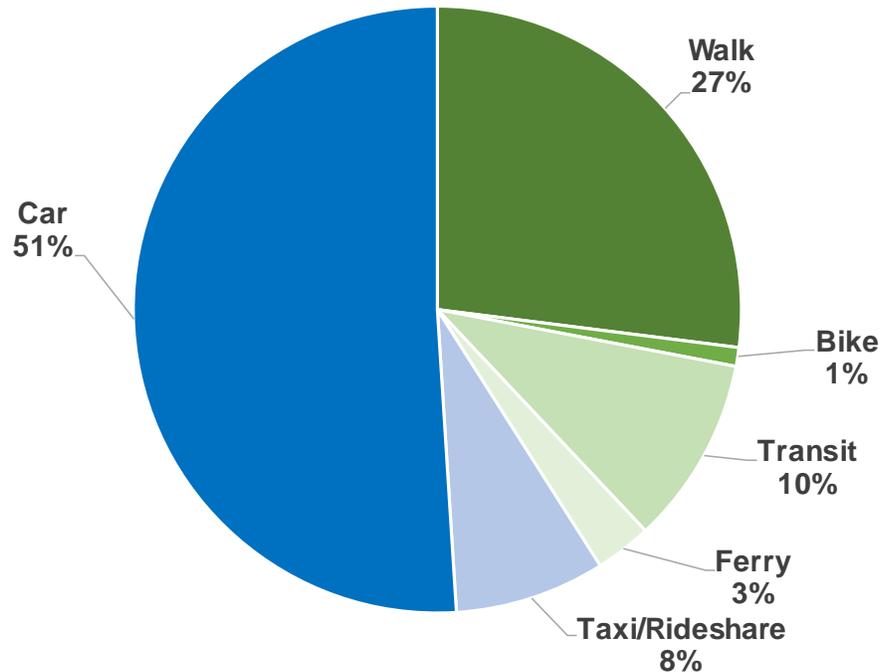
Source: Seattle Aquarium 2018

Note:

1. Based on average visitor data compiled for 2015 and 2016

To estimate the trips that would be generated by the visitor increases, travel mode, average vehicle occupancy, and parking data obtained from visitor surveys conducted by SEAS were applied. The survey, conducted in July 2015, collected travel information from 193 visitor groups, which included a total of 605 visitors. Of the respondents, about 40% were residents of the area and 60% were tourists. About two-thirds of responses were provided during peak visiting periods at the Aquarium (Wednesday through Friday between 9:30 a.m. and 1:00 p.m., and all day on weekends), and one-third were provided during off-peak visiting periods. In addition to the size of visiting groups, the survey data provided information

about the mode of transportation used by visitors (walk, bike, transit, ferry, taxi/rideshare, and drive), and duration of stay. For those who drove, the surveys provided information about where they parked. Figure 8 shows the travel mode shares of the Aquarium visitors.



**Figure 8**  
**Travel Mode Shares for Visitors to the Seattle Aquarium**

Source: Seattle Aquarium, July 2015; compiled by Heffron Transportation, June 2018

The Seattle Aquarium is not open during the commuter AM peak period and would generate few trips during that time. The highest visitor-generated volumes during the commuter PM peak period (period in which the highest traffic volumes typically occur on Seattle streets due to trips generated by evening commutes, typically between about 4:00 and 6:00 p.m.) is expected to occur between 4:00 and 5:00 p.m. The vehicle trips would be generated by visitors who travel by car or use a taxi or rideshare service. The vehicle trips they would generate were estimated by applying the following assumptions obtained from the Aquarium visitor travel surveys:

- Visitors who travel by car were assumed to generate one inbound trip to the downtown area, park their car, and make one outbound trip after their visit is complete.
- Visitors who travel by taxi or a rideshare service were assumed to generate four total trips: one inbound trip to be dropped off at the site, one outbound trip without passengers after drop-off, one inbound trip to pick up passengers at the site after the Aquarium visit, and one outbound trip with passengers after pick-up. This is a conservative assumption since some taxis or rideshare may pick up or drop off another visitor (either to or from the Aquarium or another nearby attraction).

- Assignment of trips to hour of the day was based on typical duration of visit information obtained from the survey data, which indicated that about 80% of visitors stay for 1 to 2 hours, and 20% stay for 3 hours or more.
- The travel surveys indicated an average of 3.4 persons travel together per vehicle, both for groups who drive and those who use taxi or rideshare service.

The Aquarium does not have its own parking supply, and none is proposed to be constructed. Visitor survey data indicated that about 19% of vehicles generated by Aquarium visitors are parked in the Pike Place Market Garage, which is the closest parking option. The remaining vehicles are parked on the street or in other garages outside the immediate study area (often chaining a visit to the Aquarium with visits to other downtown attractions). These vehicles would be spread out over the downtown area. The net new vehicle trips generated at the Pike Place Market Garage would enter and exit at either the Western Avenue or Alaskan Way driveways. The vehicle trips generated by taxis or rideshare vehicles are assumed to drop off and pick up passengers on Alaskan Way, next to the Aquarium.

The PM peak hour trips calculated for the action alternatives, using the method described previously, were added to the Alternative 1 volumes, to project future traffic conditions with the Ocean Pavilion.

The action alternatives reflect different configurations of the proposed action. As described previously, it is expected that the future visitor volumes with the Ocean Pavilion, and in turn the trips they would generate to and from the facility, would be similar for both alternatives. Table 5 summarizes the visitor estimates by travel mode for both the design (typical) and peak day conditions.

**Table 5**  
**Projected Visitor Increases by Travel Mode – Alternatives 2 and 3**

Time Period	Walk/Bike (28%)		Transit/Ferry (13%)		Taxi/Rideshare (8%)		Car (51%)	
	Design	Peak	Design	Peak	Design	Peak	Design	Peak
<b>Daily</b>	<b>482</b>	<b>613</b>	<b>224</b>	<b>285</b>	<b>138</b>	<b>175</b>	<b>876</b>	<b>1,117</b>
<b>Hourly</b>								
9 – 10 a.m.	27	35	13	16	8	10	50	63
10 – 11 a.m.	42	53	19	25	12	15	76	96
11 a.m. – 12 p.m.	62	80	29	37	18	23	114	144
12 – 1 p.m.	58	74	27	34	17	21	106	136
1 – 2 p.m.	67	86	31	40	19	25	124	156
2 – 3 p.m.	88	112	41	52	25	32	159	203
3 – 4 p.m.	73	93	34	43	21	27	132	169
4 – 5 p.m.	53	68	25	32	15	20	98	124
5 – 6 p.m.	10	13	5	6	3	4	19	24

Source: Seattle Aquarium 2018

Notes:

Based on average visitor data compiled for 2015 and 2016

Design = Design day

Peak = Peak day

Currently, about 140 paid employees and about 50 part-time volunteers work at the Aquarium on a typical peak season day; this is assumed to continue with Alternative 1. This daily number is projected to increase by about 60 staff persons and 40 volunteers with the Ocean Pavilion in full operation. Of these, about 55 people are expected to work daytime shifts, by which they could depart from the Seattle Aquarium during the PM peak hour (Seattle Aquarium 2018). It should be noted that these estimates are based on the most current information available at the time of EIS development; it is possible that they could be further refined as planning for the Ocean Pavilion progresses.

Commute mode-of-travel data for the area in which the Aquarium is located, compiled for the greater downtown area, indicate that about 28% of employees in the commercial core area commute by vehicle, with an average of about 1.14 persons per vehicle (Commute Seattle 2015). Applying these factors to the employees projected to depart the site during the PM peak hour results in an estimated 14 employee vehicle trips departing at this time. The analysis presented in this memorandum assumes that all would park at the Pike Place Market Garage; this results in conservatively high estimate within the study area, since some employees could park at other locations throughout downtown.

Table 6 summarizes the vehicle trips projected to be generated by the visitor and employee increases with the action alternatives, for design (typical) and peak days. It also summarizes trips by type and location.

**Table 6**  
**Projected Increase in Vehicle Trips Generated by Alternatives 2 and 3**

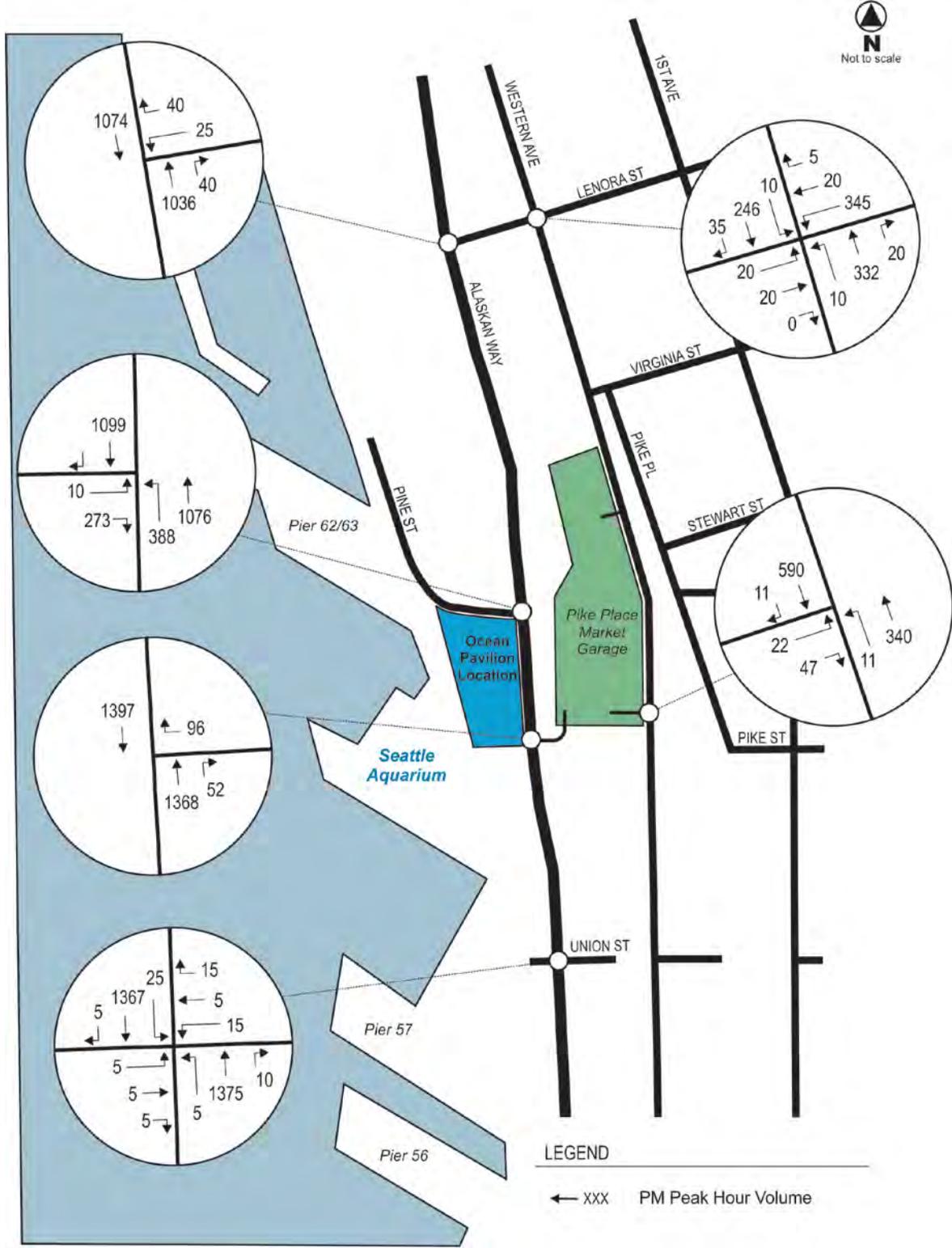
	Design (Typical) Day			Peak Season Day		
	In	Out	Total	In	Out	Total
<b>Daily Vehicle Trips</b>						
Visitor Rideshare and Taxi Trips	82	82	164	102	102	204
Visitor Trips to/from Pike Place Market Garage	49	49	98	63	63	126
Staff/Volunteer Commute Trips to/from Pike Place Market Garage	25	25	50	25	25	50
Visitor Trips to/from On-Street Parking and Other Garages (Outside Study Area)	209	209	418	266	266	532
<b>Increase in Vehicle Trips per Day</b>	<b>365</b>	<b>365</b>	<b>730</b>	<b>456</b>	<b>456</b>	<b>912</b>
<b>PM Peak Hour Vehicle Trips (4-5 p.m.)</b>						
Visitor Rideshare and Taxi Trips	11	11	22	15	15	30
Visitor Trips to/from Pike Place Market Garage	4	8	12	4	11	15
Staff/Volunteer Commute Trips to/from Pike Place Market Garage	0	14	14	0	14	14
<b>Increase in PM Peak Hour Vehicle Trips within Study Area</b>	<b>15</b>	<b>33</b>	<b>48</b>	<b>19</b>	<b>40</b>	<b>59</b>
Visitor Trips to/from On-Street Parking and Other Garages (Outside Study Area)	17	34	51	17	47	64
<b>Total Increase in Vehicle Trips in PM Peak Hour</b>	<b>32</b>	<b>67</b>	<b>99</b>	<b>36</b>	<b>87</b>	<b>123</b>

Source: Heffron Transportation 2018

The PM peak hour vehicle trips that would be generated within the study area on a peak season day—those generated by rideshare, taxi, and visitor and employee vehicles parked at the Pike Place Market

Garage, calculated as 19 inbound and 40 outbound trips—were distributed to the street network, assuming similar overall traffic patterns as Alternative 1.

The additional trips generated by visitors and employees were added to the Alternative 1 study area volumes to estimate the projected 2030 PM peak hour volumes for the action alternatives, shown in Figure 9. It should be noted that the action alternative trip projections assume that new visitors and employees would travel directly to the Aquarium before their visit or work shift and depart directly after. This results in a conservatively high estimate of PM peak hour vehicle trips because it is likely that some would walk to other destinations (e.g., shopping, errands, other attractions) before or after their visit or shift at the Aquarium and therefore would be less concentrated than the analysis assumes. Also, all trips to and from the Pike Place Market Garage via Western Avenue were assumed to occur at one driveway. Since they could be spread between the two driveways on Western Avenue, this results in a more conservative estimate of operating conditions associated with garage access.



**Figure 9**  
**2030 Traffic Volumes for Alternative 2 or 3 – PM Peak Hour**

Source: Heffron Transportation, July 2018

*Intersection Level of Service*

Levels of service (LOS) of study area intersections apply the same methods that were applied in the AWPOW EIS. LOS designations are qualitative descriptions of traffic operating conditions, designated with letters ranging from LOS A, which is indicative of good operating conditions with little or no delay, to LOS F, which is indicative of stop-and-go conditions with frequent and lengthy delays. LOS for this analysis was developed using procedures presented in the *Highway Capacity Manual* (Transportation Research Board 2016) and is consistent with the analysis method applied for the AWPOW EIS, as described in Section 4.5 of the *Appendix A: Transportation Discipline Report* prepared for that EIS (SDOT 2016c). All LOS calculations were performed with Trafficware’s *Synchro 10.1* analysis software.

LOS for intersections is defined by the average delay per vehicle in seconds. Delay at a signalized intersection is a complex measure and is dependent on a number of variables including: lane geometry, traffic volumes for each turning movement, signal phasing and whether some movements need to yield to oncoming vehicles, cycle length and time allocated to each signal phase, bus stops and adjacent parking, and the number of pedestrian crossings. Delay at a side-street stop is related to the availability of gaps in the main street's traffic flow, and the ability of a driver to enter or pass through those gaps. The delay at an all-way stop sign-controlled intersection is based on saturation headways, departure headways, and service times.

Table 7 shows the LOS criteria for signalized and unsignalized intersections.

**Table 7**  
**Level of Service Thresholds**

LOS	General Description	Average Delay (seconds per vehicle)	
		Signalized Intersections	Unsignalized Intersections
A	Free flow	<10.0	Less than 10.0
B	Stable flow (slight delays)	10.1 – 20.0	10.1 – 15.0
C	Stable flow (intermediate delays)	20.1 – 35.0	15.1 – 25.0
D	Stable flow (intermediate delays)	35.1 – 55.0	25.1 – 35.0
E	Unstable flow (approaching forced flow)	55.1 – 80.0	35.1 – 50.0
F	Forced flow (jammed)	> 80.0	> 50.0

Source: Transportation Research Board, Highway Capacity Manual 2010

The 2030 analysis presented in this memorandum reflects conditions with the completion of the AWPOW projects. In addition to the street improvements described in the Affected Environment section of this memorandum, the AWPOW projects will also signalize the intersection of the Pike Place Market Garage driveway at Alaskan Way, adjacent to the Aquarium site.

Intersection operations for Alternative 1 reflect the condition without the Ocean Pavilion.

Table 8 shows the anticipated LOS at the study area intersections for the alternatives for the year 2030. As described previously, all transportation improvements included in the AWPOW projects are expected to be in place by that year. The table shows that all study area intersections are anticipated to operate at LOS D

or better with Alternative 1. The additional vehicle trips generated in the study area by the action alternatives are projected to add a small amount of average delay to some intersections but are not expected to change their overall LOS. Based on these results, the long-term traffic impacts resulting from the action alternatives are anticipated to be minor.

**Table 8**  
**Level of Service Summary – 2030 Conditions – PM Peak Hour**

Intersection	Alternative 1 (or Refined Alternative 1)		Alternative 2 or 3	
	LOS	Delay <sup>1</sup>	LOS	Delay <sup>1</sup>
<b>Signalized</b>				
Western Avenue/Lenora Street	D	39	D	39
Elliott Avenue/Lenora Street	B	16	B	16
Alaskan Way/Pine Street	C	34	C	35
Alaskan Way/Pike Place Market Garage driveway	A	5	A	6
Alaskan Way/Union Street	B	12	B	13
<b>Stop Sign-Controlled</b>				
Western Avenue/Pike Place Market Garage driveway ( <i>overall</i> )	A	1	A	1
Eastbound movement	C	19	C	20
Northbound left-turn movement	A	9	A	9

Source: Heffron Transportation, June 2018

Note:

1. Average seconds of delay per vehicle

### Site Access and Circulation

The site access evaluation addresses deliveries and buses accessing the existing Aquarium and proposed Ocean Pavilion. The loading configuration was developed as part of the AWPOW projects and would be the same with Alternatives 1, 2, and 3.

A loading area would be provided on the west side of Alaskan Way, next to the proposed Ocean Pavilion, and separated from the adjacent sidewalk (to the west) and Alaskan Way vehicle lanes (to the east) by landscaped buffers. The loading area would accommodate both delivery vehicles and buses. A curb cut within the loading area would allow direct east-west access to the waterfront piers via the Waterfront Promenade (located between Piers 59 and 60 and the Ocean Pavilion) for emergency, freight, delivery, garbage, and recycling vehicles. These vehicles would have access to the piers at all times, but any loading directly on or off the Waterfront Promenade would be discouraged during peak pedestrian periods, and loading activities would be managed by staff, to maintain safety. The evaluation presented in Section 3.4.2 of the AWPOW EIS found that overall freight mobility on Alaskan Way would improve with the AWPOW projects, and that curb space and loading zones would be adequate to accommodate loading needs.

The action alternatives are expected to generate about 6 to 8 trucks per day (including deliveries, facility maintenance contractors, and trash, recycling and compost removal), including 4 to 6 truck deliveries that

are typically generated by the existing Aquarium, and would continue with Alternative 1 (Seattle Aquarium 2018). Deliveries primarily are spread out during off-peak periods and are anticipated to have a minor effect on traffic operations. All three alternatives include service routes to the Seattle Aquarium that cross the Aquarium Plaza that would be used by a small number of trucks per day. With either action alternative, the loading dock and site frontages would be designed to meet City standards and would adequately accommodate loading without adversely affecting pedestrian or vehicle circulation at and near the Ocean Pavilion.

Based on overall visitor increases that are expected to result from the Ocean Pavilion, the current range of about 8 to 10 buses per day that carry groups to and from the Ocean Pavilion is expected to increase to about 15 to 20 buses per day during peak day conditions. The loading zone would be designed to meet City standards to adequately accommodate passenger loading. Bus traffic is typically generated by the Aquarium during daytime hours, between 9:00 a.m. and 3:00 p.m., to correspond to typical school hours and is not expected to affect PM peak hour traffic conditions for all three alternatives. Because delivery and passenger loading activities are not expected to adversely affect traffic operation at site access points and loading needs would be adequately accommodated through adherence to City standards, impacts resulting from loading activities are anticipated to be minor.

## **Parking**

With Alternative 1, there would be no changes to parking demand or supply, beyond what was evaluated in Section 3.7 of the AWPOW EIS. The AWPOW EIS analysis inventoried on-street and off-street parking in its study area and evaluated parking utilization within that area during several times per day. The Affected Environment section of this memorandum provides updated parking utilization data for off-street parking near the site and in the broader waterfront study area. Findings of the updated utilization information are consistent with the findings of the AWPOW analysis; while parking is priced and tightly controlled, there is unused parking available during all times of day. No additional assessment was conducted for Alternative 1.

Parking demand increase for Alternative 2 was forecast utilizing the survey results described for the traffic volume forecasts. As previously described, the Aquarium does not have its own parking supply, and none is proposed to be constructed. Visitor survey data indicated that about 19% of vehicles generated by Aquarium visitors are parked in the Pike Place Market Garage, which is the closest parking option. The remaining vehicles are parked on the street or in other garages outside the immediate study area (often chaining a visit to the Aquarium with visits to other downtown attractions).

It is anticipated that most parking generated by Aquarium events occurs at the adjacent Pike Place Market Garage. The capacity of the garage to accommodate increased event-related parking demand was evaluated, based on the parking usage data described previously in the Affected Environment section.

Additional parking demand generated by new visitors with the action alternatives is summarized in Table 9. The visitor survey data indicated that visitors who travel to the Aquarium by car have an average of 3.4 persons per car. Applying this average vehicle occupancy to the additional visitors projected to travel by car with the action alternative results in a total additional 258 vehicles parked per day on a design

(typical) day and 329 vehicles parked per day on a peak day. Parked vehicles generated by Aquarium visitors would be spread throughout the day and would not be all parked at the same time. Applying the visitors by hour of day, shown previously in Table 5, as well as the typical duration of stay reflected in the Aquarium visitor surveys, results in a peak hour demand of 89 parked vehicles on a design (typical) day and 116 parked vehicles on a peak day.

**Table 9**  
**Additional Parking Demand Generated by Visitor Increases – Alternatives 2 and 3**

	Design Day	Peak Day
Additional Daily Visitors Traveling by Car	876	1,117
Additional Cars Parked Per Day <sup>1</sup>	258	329
Peak Hour Additional Demand <sup>2</sup>	89	116
<i>Peak hour demand at Pike Place Market Garage</i>	17	22
<i>Peak hour demand on street and at other downtown garages</i>	72	94

Source: Seattle Aquarium 2018; compiled by Heffron Transportation, June 2018

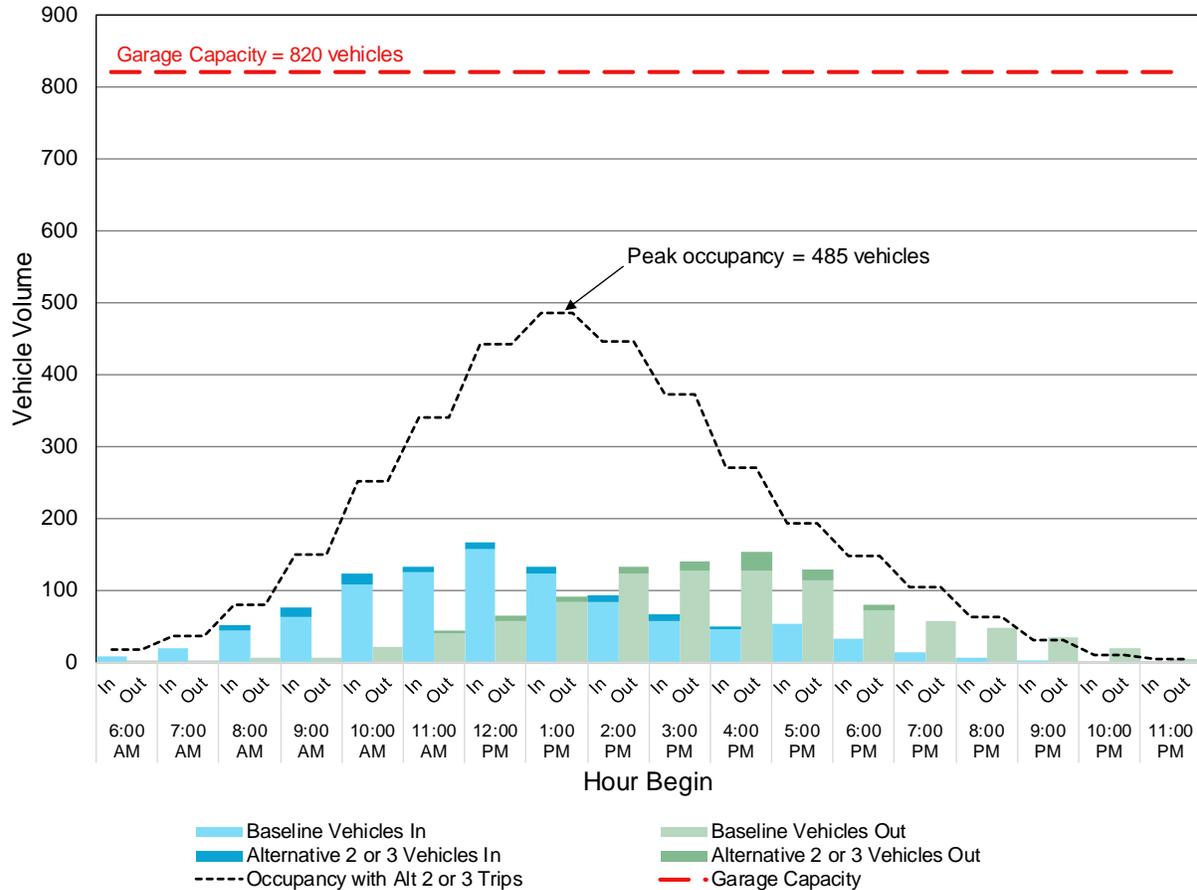
Notes:

1. Daily parking demand estimated by dividing the number of daily visitors traveling by car by an average vehicle occupancy of 3.4 persons per vehicle
2. Peak hour parking demand estimated by applying the projected visitor demand profile by hour (see Table 5) and calculating the cumulative parking demand based on typical durations of stay reflected in the visitor travel surveys

Based upon the parking occupancy shown previously in Figure 6, the Pike Place Market Garage has adequate capacity to accommodate all of this additional parking demand. However, based on the visitor survey data, about 19% are expected to park at the Pike Place Market Garage, and the rest are expected to park on street or at other downtown garages.

Based on employee vehicle trip projections summarized in Table 4, each action alternative is expected to generate an additional 25 vehicles parked by Aquarium staff and volunteers per peak season day. As discussed previously, the analysis presented in this memorandum assumes that all employees and staff would park at the Pike Place Market Garage; this results in conservatively high estimate within the study area, because some employees could park at other public and private lots and garages throughout downtown. Additional staff generated by the action alternatives were assumed to arrive between 8:00 and 11:00 a.m. and depart between 3:00 and 7:00 p.m. (with a little over half departing during the PM peak hour, as previously described).

Figure 10 shows the projected distribution by hour, with the additional parking demand expected to be generated by visitors and staff with the action alternatives. The figure shows that on a typical weekday during the peak visitor season, when parking demand is highest in the downtown core area of Seattle, including garages along the waterfront, the action alternatives are projected to generate an additional peak parking demand of about 45 vehicles in the Pike Place Market Garage at mid-afternoon, compared to Alternative 1, as shown in Figure 6.



**Figure 10**  
**Pike Place Market Garage – Hourly Use on Peak Season Weekday with Alternative 2 or 3 Demand**

Source: Heffron Transportation 2018

With additional parking demand generated by either of the action alternatives, the Pike Place Market Garage is expected to have more than 300 spaces available throughout the weekday to accommodate demand generated by other uses. As described previously, while the Pike Place Market Garage would have adequate capacity to accommodate all increased parking demand, the action alternatives are expected to generate about 94 additional vehicles at other locations spread throughout downtown during the peak demand hour (as patrons often chain a visit to the Aquarium with visits to other downtown attractions). However, the visitor travel survey showed that these vehicles would be spread out between on-street parking and private lots and garages throughout the downtown area and would be less concentrated than the demand generated within the study area. Downtown parking capacity illustrated in Table 2 shows that there is ample capacity in private lots and garages to accommodate this demand. If more visitors opted to park at the Pike Place Market Garage than the visitor travel surveys indicated, analysis completed for the garage expansion project concluded that even at full garage occupancy, parking demand would not result in significant adverse transportation impacts (Heffron Transportation 2013). Because parking capacity

would be available to accommodate the additional parking demand generated by the action alternatives, parking impacts are anticipated to be minor.

## Freight

Consistent with the AWPOW EIS analysis, and as described in Section 4.4.2 of the *Appendix A: Transportation Discipline Report* prepared for that document, the Alternative 1 operational analysis assumes the same percentage of heavy (freight) vehicles in the study area as under 2017 existing conditions (SDOT 2016c). This assumption was based on the EBSA analysis, which determined that removal of the viaduct and opening of the bored tunnel would not affect the percentage of freight traffic on the study area streets. The number of truck trips would increase with the increased traffic forecast for 2030 conditions. Consistent with the AWPOW EIS and Alternative 1 operational analysis described previously, the action alternative analysis assumes the same percentage of heavy (freight) vehicles in the study area as under 2017 existing conditions. None of the alternatives would affect citywide freight routes. Therefore, no freight impacts are anticipated.

## Transit

With Alternative 1, there would be no changes to transit demand or supply, beyond what was evaluated in the AWPOW EIS. As described in Section 4.4.4 of the AWPOW EIS *Appendix A: Transportation Discipline Report*, analysis included future public transportation volumes in the study area, as provided by Metro, in the traffic operations model (SDOT 2016c). Changes to public transportation routing as a result of AWPOW improvements, including anticipated impacts on ridership and bus stops, were qualitatively analyzed to evaluate impacts on public transportation. No additional assessment was conducted for Alternative 1.

Additional transit demand generated by the action alternatives was estimated by applying the survey travel mode data previously described to the forecast visitor increases. The data indicated that 13% of visitors travel to the Aquarium by transit or ferry. The impact of the increased demand was qualitatively evaluated with respect to available transit service and facilities in the area, and also consistency with local and regional policies (described previously in the Regulatory Context section of this memorandum) that encourage use of alternative travel modes.

As shown in Table 5, the proposed Ocean Pavilion under the action alternatives is projected to result in an increased number of visitors who travel to and from the Seattle Aquarium by transit. The 224 (typical day) to 285 (peak day) additional visitors who travel by transit translates to 448 to 570 new transit trips per day, as each visitor makes one inbound transit trip to the Seattle Aquarium and one outbound trip at the end of their visit. The peak transit demand would occur mid-day and would not overlap with the commuter peak hours into and out of downtown. As described previously, downtown Seattle is the largest transit hub in the region; the waterfront area is served by light rail, streetcar, commuter rail, ferry, water taxi, and dozens of local, regional, and RapidRide bus routes provided by Metro, Sound Transit, Community Transit, and Pierce Transit. These collective transit options for downtown Seattle provide capacity that is more than adequate to support the increased transit demand generated by the action alternatives. Increased transit ridership is considered beneficial because it supports, local, regional, and statewide policies that encourage the use of alternative transportation modes instead of driving. None of the alternatives would affect transit stops, stations, or routes. No adverse transit impacts are anticipated to result from the action alternatives.

## **Non-Motorized Travel**

With Alternative 1, there would be no changes to non-motorized facilities or conditions, beyond what was documented in Section 3.4.2 of the AWPOW EIS for the reconfiguration of Alaskan Way next to the Ocean Pavilion. The AWPOW pedestrian comfort and safety analysis was qualitative and considered the types of driveways, roadways, and impediments pedestrians will encounter and the types of intersection control provided. It also considered the width of facilities and the separation provided to pedestrians from bicyclists and vehicular traffic. A qualitative analysis was conducted of bicycle comfort and safety through the study area. The bicycle analysis was also qualitative and considered the number of driveways and roadways cyclists would cross and the types of intersection control provided. The width of facilities and the separation provided to bicyclists from pedestrians and vehicular traffic were also considered. No additional assessment was conducted for Alternative 1.

Additional non-motorized demand generated by the action alternatives was estimated by applying the survey travel mode data previously described to the forecast visitor increases. The data indicated that 27% of visitors walk to the Aquarium (many of whom are tourists staying at downtown hotels) and 1% bike. Since the Seattle Aquarium has no added parking, all new patron trips are assumed to be non-motorized trips between the site and parking, transit, or other walking destinations. The impact of the increased demand was qualitatively evaluated with respect to available non-motorized facilities in the area, including pedestrian connections and at-grade crossings of Alaskan Way, and also consistency with local and regional policies (described previously in the Regulatory Context section of this memorandum) that encourage use of travel modes.

As shown in Table 5, the proposed Ocean Pavilion under the action alternatives is projected to result in an increased number of visitors who travel to and from the Aquarium by walking or biking. The 482 (typical day) to 613 (peak day) additional visitors who travel by walking or biking translates to 964 to 1,226 new walking and biking trips per day, as each visitor makes one inbound trip to the Aquarium and one outbound trip at the end of their visit. In addition, since the Seattle Aquarium has no on-site parking, all new patron trips would include a non-motorized component, as visitors traveling by other modes would walk between the site and parking, transit, or other walking destinations. With Alternative 1, the existing Aquarium site would be incorporated into the extensive pedestrian and bicycle improvements that are being constructed along the waterfront as part of the AWPOW projects. With the action alternatives, the Ocean Pavilion would be integrated with the AWPOW projects' improvements, providing additional pedestrian space and meeting all accessibility standards. The existing and planned future pedestrian and bicycle facilities would adequately accommodate additional non-motorized demand generated by the Ocean Pavilion. Increases in people walking or biking is considered beneficial because it supports, local, regional, and statewide policies that encourage the use of alternative transportation modes instead of driving. No adverse non-motorized impacts are anticipated to result from the action alternatives.

## ***Event Condition Impacts***

The Seattle Aquarium also currently hosts special events, and the Ocean Pavilion could increase event capacity. Information about the current size and frequency of events at the Aquarium, as well as information about how they are expected to change with under the action alternatives, was provided by the Aquarium staff.

The existing facility has an event capacity of 800 guests. In 2017, 113 events were held over the course of the year, with an average attendance of 230. In July 2017, the month with the highest level of overall visitor activity, 19 events were held, ranging in size from 15 to 800 guests, with an average attendance of 176. With the action alternatives, event capacity would increase to about 1,200 guests. The frequency of events is not expected to materially change, but an average attendance of about 600 is projected with full operation of these alternatives. Because these events primarily occur during off-peak hours (during weekends or weekdays after the Aquarium is closed to the general public, after the PM peak hour) the overall typical traffic volumes are anticipated to be lower than the PM peak hour condition, and intersection operations would typically be better than the results summarized in Table 8. Therefore, no operational analysis was conducted for event conditions.

As shown in Figure 6, peak parking occupancy at the Pike Place Market Garage typically occurs in the mid-afternoon and occupancy steadily declines later in the afternoon on all days of the week. During the evening hours, there is ample parking capacity available to accommodate event parking demand, and no adverse impacts on parking are anticipated from event activities.

### ***Animal Care Center Impacts***

The proposed Animal Care Center may be located on Harbor Island or a similar warehouse location, about 5 miles from the Seattle Aquarium. It is anticipated that up to 2 to 4 employees would typically generate about 2 to 4 commute trips per day. Fewer than 3 trips per day would typically be generated by operation of the facility and would primarily occur during off-peak periods. Because trips generated by the Animal Care Center would be small in number and spread through the day, they would have a negligible effect on traffic operations. On-site parking supply and loading facilities would meet City code requirements and standards; therefore, no adverse impacts related to parking or loading are anticipated.

### ***Mitigation***

No significant long-term transportation or parking impacts are anticipated to result from Alternatives 1, 2, or 3, or the Animal Care Center; therefore, no mitigation is proposed.

### ***Construction-Related (Short-Term) Impacts and Mitigation Measures***

Construction-related activities may have impacts related to truck trips, construction employee trips and parking, and short-term lane or sidewalk closures. The degree of the impact depends on both quantitative and qualitative assessments. Based on a combination of quantitative and qualitative assessments, the degree of impact is defined as minor, moderate, or significant. These potential impacts are described in the following sections.

### ***Alternative 1 Impacts***

Alternative 1 would not include construction beyond what was analyzed in Section 3.3 of the AWPOW EIS, which considered the transportation and parking impacts of the overall improvements along the waterfront between Wall Street and South King Street, but did not explicitly consider the potential impacts of construction of the Ocean Pavilion. No additional construction impacts are identified for this alternative.

### **Alternatives 2 and 3 Impacts**

The following transportation and parking impacts are anticipated to result during the construction of either action alternative.

#### **Construction-Generated Vehicle Trips and Parking**

For the action alternatives, estimates of vehicle trips generated by construction activities—including trucks hauling site materials and construction employee trips—were based on the preliminary design and construction phasing anticipated for these alternatives. It should be noted that because estimates are preliminary, they are conservatively high. For the action alternatives, trips would be generated by trucks traveling to support construction activities and also by construction workers commuting to and from the work site. Trucks are expected to average between about 10 and 20 round trips per day, over the duration of the 28-month construction period. The highest daily truck trips (about 50 round trips per day) are expected to occur during the period when excavation and foundation construction occurs.

It is anticipated that construction workers would arrive at the work site before the morning peak traffic period on area streets and depart the site prior to the evening commute peak period. Vehicle trips generated by construction workers may be constrained by the amount of available parking at the work site; if measures are needed to eliminate potential parking overspill, they would also serve to reduce vehicle trips.

An average of 100 construction employees are expected to be at the work site on any given day; the exact number would vary from day to day depending on the construction activities taking place. Construction employees who drive to the work site would generate parking demand. For downtown projects, any employee parking that cannot be accommodated at the site may require the use of off-site parking and transit or employee shuttles between the parking location and the site, to prevent overspill to the public parking supply. However, it may be possible for some construction-generated parking to occur within the Pike Place Market Garage during periods or times of year when there is excess capacity. With mitigation in place, construction-generated parking impacts would be minor.

Construction-generated trips and parking demand were estimated based on preliminary design and anticipated construction phasing. They would be refined as part of ongoing design.

#### **Street Lane or Sidewalk Closures**

The Ocean Pavilion would coordinate construction along its Alaskan Way frontage with the AWPOW projects to minimize lane and sidewalk closures. To the extent possible, truck staging would be located off Alaskan Way.

No major street closures are anticipated to occur with construction of the action alternatives. If necessary, lane or sidewalk closures during construction would be localized and limited in duration. Any closures that occur would need to be managed through measures developed as part of a Construction Management Plan, described in the following mitigation section. With mitigation measures in place, impacts related to street lane or sidewalk closures are anticipated to be minor to moderate, depending on the duration, level of capacity reduction, and length of detour.

## **Animal Care Center Impacts**

Construction activities associated with the Animal Care Center would generate a small number of trucks that would be spread out and would not have noticeable effect on traffic operations.

Construction-generated parking for the Animal Care Center would be accommodated on site and would not result in adverse impacts.

## **Mitigation**

For the action alternatives, the Ocean Pavilion contractor would be required to develop and implement a Construction Management Plan, which could potentially include, but not be limited to, the following avoidance and minimization measures:

- Prepare Maintenance of Traffic plans for any work within the public right-of-way that affects vehicular, transit, bicycle, or pedestrian traffic. These plans would be required to show the location of traffic cones, traffic control personnel, and signs, and indicate special treatments for pedestrian and bicycle access.
- Coordinate with the City to determine appropriate times of travel and haul routes for construction-generated truck traffic. In general, construction-generated truck traffic may be prohibited during weekday peak periods (6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.). Haul routes generally would be on arterial streets through commercial areas and consist of the most direct path to and from the state highway system.
- Maintain access for driveways near the work site.
- Provide adequate staging areas for construction-related vehicles.
- Provide on-site loading areas for removal and delivery of material.
- Encourage construction workers to commute via alternative modes, or provide shuttle service to and from the work site for construction employees, to minimize added vehicle trips and parking demand at or near the work site.
- Maintain pedestrian and bicycle access and circulation during project construction.
- Provide access for emergency vehicles at all times. During lane closures, notify police and fire departments of construction locations to ensure that alternative evacuation and emergency routes are designed to maintain response times during construction periods, if necessary.

Through its Street Use Permit process and consistent with SMC 15.32.050, SDOT would coordinate the construction needs and potential construction-related impacts of this project with the other infrastructure and development projects in the study area, including potential overlapping elements of the AWPOW projects' construction. SEAS would participate in construction coordination processes that SDOT establishes for major projects. Implementation of these measures is expected to reduce construction traffic and parking impacts to less-than-significant levels. Therefore, no mitigation measures are proposed.

## ***Cumulative Effects and Mitigation Measures***

Since the analysis in this report builds on the AWPOW EIS, which included additional background traffic forecasted to result from regional development growth through 2030, all operational transportation and parking analysis provided is cumulative.

AWPOW identifies other planned and programmed projects with construction activities that could potentially overlap. As described in the mitigation section, through its Street Use Permit process and consistent with SMC 15.32.050, SDOT would coordinate the construction needs and impacts of this project with the other infrastructure and development projects in the study area, including potential overlapping elements of the AWPOW construction. SEAS would participate in construction coordination processes that SDOT establishes for major projects. With this mitigation, no significant adverse cumulative effects are anticipated.

Overall, transportation and parking within the study area would be improved by the AWPOW projects and would further the goals of regional and local land use and transportation plans (SDOT 2016b). It is also anticipated that there would be adequate long-term parking within the study area to accommodate the Ocean Pavilion and other simultaneous and planned projects. It is expected that the City would continue to assess parking needs and require parking be provided, as needed, for future development. Therefore, it is anticipated that there would be no cumulative effects from operation of the proposed action on transportation and parking.

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Appendix C  
Land Use Technical Memorandum

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Source: City of Seattle

August 2018

Seattle Aquarium Ocean Pavilion

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## Land Use Technical Memorandum

**Prepared for**

City of Seattle Department of Parks and Recreation  
Seattle Aquarium Society

**Prepared by**

Anchor QEA, LLC

## Executive Summary

The purpose of this technical memorandum is to describe the potential impacts on land use associated with the proposed Seattle Aquarium Ocean Pavilion (Ocean Pavilion). This memorandum evaluates the potential effects of project construction and operation on these resources for two action alternatives as well as a No Action Alternative. The City of Seattle Department of Parks and Recreation (Seattle Parks and Recreation), in coordination with the Seattle Aquarium Society (SEAS), is preparing a State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) to evaluate the proposal, which includes two different building options located near the existing Aquarium at Piers 59 and 60 along the Seattle waterfront and an off-site Animal Care Center that may be located on Harbor Island at the former Fisher Flour Mill or similar facility.

The construction of an "Aquarium Pavilion" was reviewed by the City of Seattle (City) as part of the Alaskan Way, Promenade, and Overlook Walk (AWPOW) SEPA EIS (SDOT 2016). Information and analysis from the AWPOW EIS is incorporated by reference into the analysis and findings of this memorandum, in accordance with Seattle Municipal Code (SMC) 25.05.635 and Washington Administrative Code (WAC) 197-11-635.

The Ocean Pavilion is being proposed as a separate and independent project from the AWPOW and other ongoing projects along the central waterfront. However, the proposal is intended to anchor these projects and reconnect the city with Puget Sound and its central waterfront. This memorandum summarizes the relevant findings from the AWPOW EIS, describes changes to the Ocean Pavilion proposal that have occurred since that time, and evaluates whether the changes would result in any potential additional construction and long-term impacts on land use.

The findings of this Ocean Pavilion EIS land use analysis indicate that Alternative 1 would have no construction-related impacts to adjacent land uses, while the action alternatives (Alternatives 2 and 3) would have minor construction-related impacts due to effects associated with noise, dust, congestion, loss of parking, and access (Table 1). Mitigation measures for construction impacts would include maintaining access to businesses and recreational facilities, communicating with residents, businesses, and stakeholders, and applying measures developed for other environmental topics, such as controlling noise and dust.

The action alternatives are anticipated to provide minor long-term benefits because the Ocean Pavilion would increase educational opportunities and support anticipated land uses in the area, consistent with local plans and policies. Alternative 3 would have slightly more benefit because it preserves unobstructed public views of Elliott Bay, whereas Alternative 2 would have partially obstructed public views. Additionally, both action alternatives would improve access to the Pike Place Market from the waterfront, although this would occur to a greater extent with Alternative 3 because pedestrian access would have a more level connection with the Overlook Walk and a more visible elevator connection

**Table 1**  
**Land Use Impacts Summary**

Alternative	During Construction	Long Term
1 (No Action)	<b>No Adverse Impact</b> No construction, therefore no construction impacts	<b>No Adverse Impact</b> Would maintain public open space and access consistent with the goals of applicable land use plans and policies as analyzed in the AWPOW EIS (SDOT 2016)
2	<b>Minor Impacts</b> Potential impacts associated with noise, dust, congestion, loss of parking, and access changes	<b>No Adverse Impact, Minor Benefit</b> <ul style="list-style-type: none"> <li>• Would further the goals of applicable land use plans and policies for education, increased multimodal connections, and open space and recreation</li> <li>• Would provide public open space and access to the rooftop and partially obstructed public views of Elliott Bay, preserving some views of the water</li> </ul>
3	<b>Minor Impacts</b> Potential impacts associated with noise, dust, congestion, loss of parking, and access changes	<b>No Adverse Impact, Minor Benefit</b> <ul style="list-style-type: none"> <li>• Would further the goals of applicable land use plans and policies to a greater degree than Alternative 2 for increased multimodal connections and open space and recreation</li> <li>• Would provide public open space and access to the rooftop; the higher elevation would provide unobstructed public views of Elliott Bay over Pier 59, preserving views of the water consistent with policies and goals of the City's Comprehensive Plan</li> <li>• Would also provide improved access to the Pike Place Market from the waterfront to a greater degree than Alternative 2 because pedestrian access would have a more level connection with the Overlook Walk and a more visible elevator connection; there would also be more landscaping on the Ocean Pavilion roof as compared to Alternative 2</li> </ul>

## Introduction and Project Description

The Ocean Pavilion would be located in Seattle, King County, Washington (Figure 1). The building would be constructed east of the existing Aquarium, and east of the future pedestrian promenade along the waterfront constructed as part of the AWPOW projects. A potential off-site Animal Care Center may be located on Harbor Island at the former Fisher Flour Mill or a similar facility (Figure 1). Three alternatives have been developed for the Ocean Pavilion: a No Action Alternative and two action alternatives. A full description of these alternatives is included in the Draft Ocean Pavilion EIS, with summary descriptions provided within this technical memorandum.



**Figure 1**  
**Vicinity Map**

## ***Alternative 1: No Action Alternative***

Under Alternative 1 (No Action Alternative), the Ocean Pavilion would not be built. However, conditions in the area would be different from those that exist at the time this EIS is published (2018). The analysis for the No Action Alternative is based on the expected conditions in 2030, which is the year used for the assessment of future conditions. The following major changes assumed to be in place under the No Action Alternative:

- The AWPOW projects identified in the preferred alternative within the AWPOW EIS would be completed. The AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects' design process.
- The Alaskan Way Viaduct Replacement Project (AWVRP) would be completed, with the viaduct eliminated and the State Route 99 tunnel in operation.
- The Elliott Bay Seawall Project (EBSP) would be completed.
- Ongoing public and private development projects that are currently being permitted through the Seattle Department of Construction and Inspections would be completed, with an additional projected baseline growth of 1% per year.

A description of the AWPOW's selected preferred alternative is included in Section 2.3 of the AWPOW EIS (SDOT 2016). The main difference between the two is that the No Action Alternative for Ocean Pavilion does not include construction of the "Aquarium Pavilion," which was one option described as part of the AWPOW's preferred alternative. Descriptions of the AWVRP and EBSP are described in Section 2.2 of the AWPOW EIS. Figure 2 shows the No Action Alternative, which serves as the baseline against which the potential impacts of the action alternatives are evaluated.

### ***Office of the Waterfront and Civic Projects' Potential Design Refinements***

The AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects' design process. As of the publication of this EIS, the conceptual design of the Overlook Walk lid (or bridge) connecting the waterfront to the Pike Place Market over Elliott Way would be narrower (90 feet versus 190 feet) and higher (50 feet versus 40 feet) than the design in the AWPOW EIS. In addition, Building B would be replaced by a smaller one-story building with a covered outdoor café and seating area on its roof. Public stairs and elevators would maintain connections from the Overlook Walk to the waterfront. These refined conditions were used in assessing the range of impacts of the action alternatives as compared to No Action Alternative and potential design refinements.

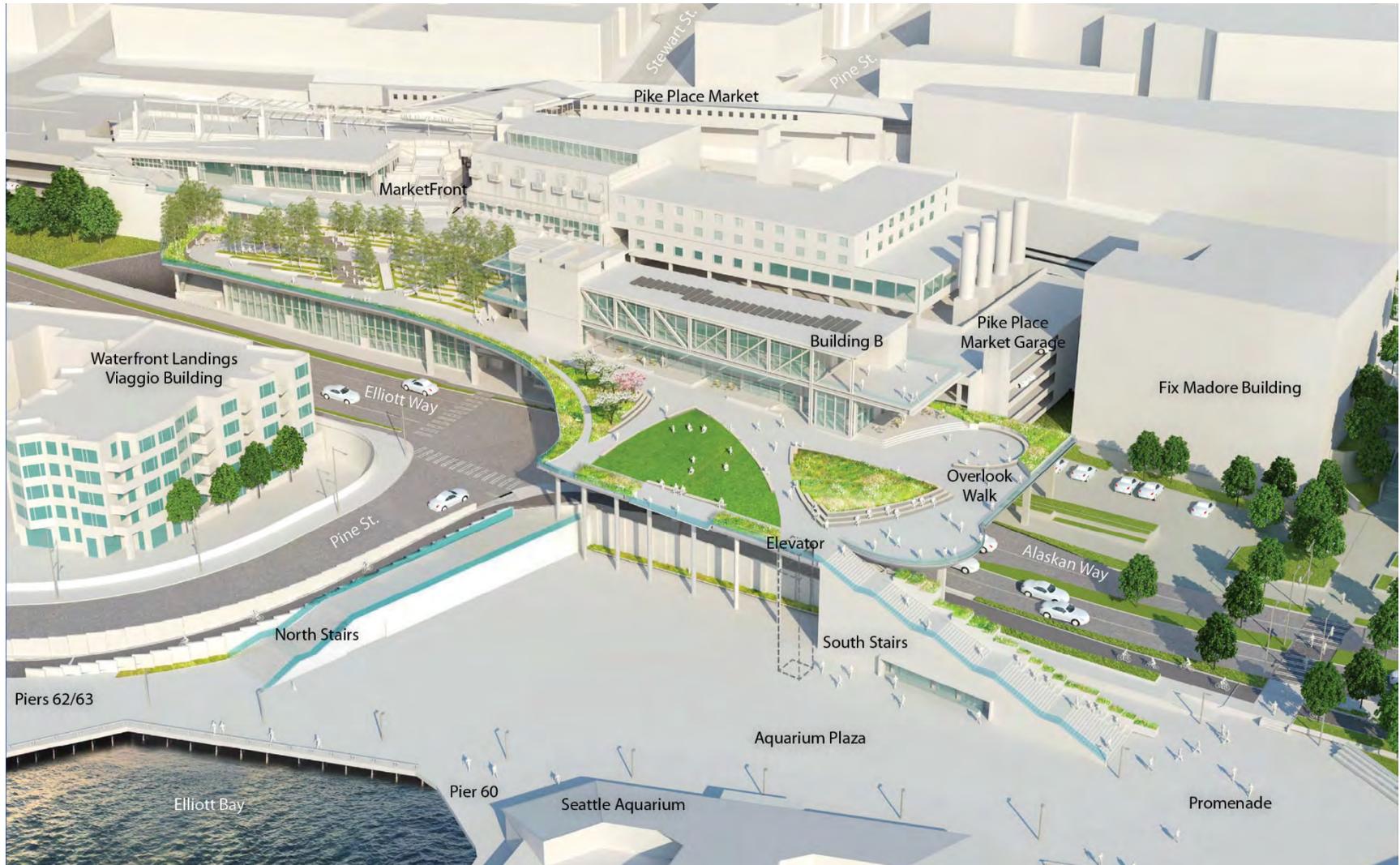
## ***Alternative 2***

Alternative 2 includes the Ocean Pavilion concept evaluated as one option for the preferred alternative under the AWPOW EIS (referred to as the "Aquarium Pavilion" in the AWPOW EIS). Alternative 2 includes an approximately 48,000-square-foot building featuring an interior elevator and connections to a fully accessible route between the waterfront and Pike Place Market. The orientation of the proposed building would locate it farther north and closer to Pine Street, compared to Alternative 3 which would be located farther south. The building would be approximately 40 feet tall with a rooftop waterfront viewing space accessible

from the Overlook Walk. An off-site Animal Care Center would be included under Alternative 2, as described herein. Figure 3 shows Alternative 2.

### *Alternative 3*

Alternative 3 includes building the Ocean Pavilion east of the existing Aquarium on Alaskan Way and the future Waterfront Promenade. The Ocean Pavilion would be located farther south than Alternative 2, resulting in a shorter distance from the Ocean Pavilion entrance to the existing Seattle Aquarium entrance and improved accessibility for visitors, volunteers, staff, and Aquarium programs. The proposed building would include an approximately 48,000-square-foot public aquarium featuring an exterior elevator and connections to a fully accessible route between the waterfront and Pike Place Market. The building would be approximately 50 feet tall with unobstructed public views of Elliott Bay over the existing Seattle Aquarium on Pier 59 and would be accessible from the future Overlook Walk. This alternative also includes an off-site Animal Care Center, as described herein. Figure 4 shows Alternative 3.



**Figure 2**  
**Alternative 1 (No Action)**

Source: LMN Architects



**Figure 3**  
**Alternative 2**

Source: LMN Architects



**Figure 4**  
**Alternative 3**

Source: LMN Architects

### ***Off-Site Animal Care Center for Alternatives 2 and 3***

An off-site Animal Care Center is proposed to address both short- and long-term animal care, veterinary, and rehabilitation needs and to meet the Association of Zoos and Aquariums' standards. The most immediate need is to provide necessary animal care to support the opening of the Ocean Pavilion and the turtle rehabilitation program. The Animal Care Center would also be a long-term care facility that supports SEAS' exhibit animal population, animal rehabilitation, and research efforts.

The Animal Care Center would be designed to meet peak animal care demand for the Aquarium exhibits and programs. This would include approximately 15,000 square feet of interior space, plus an additional 5,000 to 7,000 square feet of area surrounding the facility for outdoor animal holding, water storage, and parking. The center is intended to meet the care needs of both warm- and cold-water fish, birds and mammals, and rehabilitating animals. The center would also provide long-term care, including life support systems, with flexibility in the design to accommodate future needs.

The Seattle Aquarium plans to have the Animal Care Center constructed and operational 2 to 3 years prior to the opening of the Ocean Pavilion. This would allow for coral propagation, animal quarantine, and acclimation of the animals for the exhibits. The Aquarium has identified a potential site at the former Fisher Flour Mill property on Harbor Island, which is owned by King County. While the Fisher Flour Mill site is a potential location for the center, a similar location could be pursued. It is not anticipated that the impacts identified in this analysis would differ at a similar location.

### ***Construction Methods for Alternatives 2 and 3***

Construction methods for the action alternatives are described in the following subsection. It is anticipated that construction methods would be similar for both action alternatives. During construction, access to existing utilities would be maintained for surrounding property uses.

#### ***Construction Activities***

It is anticipated that construction at the Ocean Pavilion would require the following activities:

- Open excavation for the basement of the Ocean Pavilion, which would reach about 20 feet below the ground surface, with 48-inch-diameter piles extending at varying depths
  - It should be noted that for Alternative 2, the AWPOW EIS shows 60 to 80 feet of excavation proposed in this area (SDOT 2016: Figure 10-2, page 245). It is expected that this depth is specific to the future Overlook Walk and other improvements, and depths of that magnitude would not be required to construct the Ocean Pavilion.
- Dewatering of excavation areas below the water table or implementing soil freezing treatments to provide a dry work area as necessary
- Protecting, relocating, and/or connecting utilities
- Using best management practices to protect water quality and reduce erosion (may include installation of silt fencing, covering of stockpiled soil, and collection and treatment of construction stormwater runoff)
- Drilling shafts for piers to support the building, including exterior elevators or stairs as necessary

- Removing existing knock-outs in the adjacent seawall under Pier 60 to connect the overwater intake pipe, seawater discharge, and utilities and infrastructure between the Ocean Pavilion and existing Seattle Aquarium buildings
- Erecting structural components and installing mechanical and other building features, using a crane tower for hoisting
- Potentially using one barge for 3 to 8 weeks, located between Piers 62/63 and Pier 60 for delivery of acrylic windows for the exhibits

Construction at the Animal Care Center would be limited to the building interior. No substantial modifications or new construction would be required to the exterior or surrounding areas.

### ***Construction Staging***

It is anticipated that areas within or near the proposed action (e.g., Aquarium Plaza) would be used for staging construction and storing materials, equipment, and temporary construction trailers.

### ***Construction Timing***

Construction of the Ocean Pavilion is expected to take up to approximately 4 months for early foundation work and 24 months for general construction. Preparation of the off-site Animal Care Center is expected to take approximately 9 months and would occur in advance of construction of the Ocean Pavilion.

### ***Worker Parking, Access, and Haul Routes***

The Ocean Pavilion contractor is expected to establish a worksite office, which could be located in existing office space near the Seattle Aquarium or in a mobile facility in the established laydown area or nearby. A limited number of construction workers may be able to park at the worksite office or on the work site, others could use off-street parking garages near the Aquarium, and some may use transit and walk to the work site. The Animal Care Center contractor is anticipated to establish a construction office in existing space within the building that would house the Animal Care Center. Very little parking demand is expected to be generated during build out of the Animal Care Center.

Construction activities would generate traffic for equipment and removing debris and soil. The contractor would determine the best construction methods, as permitted by the City and in conformance with the project construction plans.

## **Regulatory Context**

Land use plans and policies, required by local, state, and federal laws and regulations, guide development in the study area. The plans and policies establish goals for growth locally, regionally, and statewide.

### ***State Laws, Plans, and Policies***

The SEPA process considers short- and long-term direct and indirect impacts as well as cumulative impacts on land use (WAC 197-11-060 and WAC 197-11-444). This includes review of current land use and zoning, shoreline master program (SMP) designations, critical areas, economic and residential activity, and consistency with land use plans.

The Growth Management Act (Revised Code of Washington [RCW] Chapter 36.70A) requires state and local governments to prepare comprehensive plans, capital improvement programs, and development regulations.

The Shoreline Management Act (RCW 90.58.020) requires local governments to plan shoreline use as well as environmental protection and public access to the shoreline.

### *Regional Plans and Policies*

The Puget Sound Regional Council (PSRC) develops policies and coordinates decisions about regional growth, transportation, and economic development planning in Northwestern Washington. PSRC's Vision 2050 includes a regional economic strategy that sets development priorities (PSRC 2017).

### *Local Plans and Policies*

The SMC includes the following laws:

- Policies and procedures for implementing the City's SEPA responsibilities (SMC 25.05)
- Land Use Code (SMC Title 23), specifically:
  - Downtown Zoning including Downtown Harborfront 2 (SMC 23.49)
  - SMP (SMC 23.60A), which guides and regulates development of the shorelines
  - Regulations governing environmentally critical areas (SMC 25.09)

A number of other plans and policies govern the study area. The City's Comprehensive Plan (2017) fulfills requirements of the Growth Management Act, and aims to manage growth in a way that benefits residents and preserves the natural environment.

*The Downtown Urban Center Neighborhood Plan* (City of Seattle 1999a) includes the Ocean Pavilion area in the "Commercial Core" neighborhood. The plan provides detailed goals to support the City's Comprehensive Plan. The *Seattle Commercial Core Neighborhood Plan* (City of Seattle 1999b) tiers off of the Downtown Urban Center Neighborhood Plan and provides specific recommendations for the Commercial Core.

The SEAS *Seattle Aquarium Strategic Plan 2011-2030* (2011) and *A Master Plan for Expansion* (2015) describe plans for expansion to accommodate an increase in future attendance that is integrated with other planned waterfront development in coordination with the City.

To the east, a portion of the study area is within the Pike Place Market Historical District (SMC 25.24). There are no design or use changes proposed within this area.

In the potential Animal Care Center area, the Greater Duwamish Manufacturing and Industrial Center Plan provides goals and strategies for maintaining manufacturing and industrial character (GDPC 1999). If the Animal Care Center is located elsewhere, it is anticipated that the center would be consistent with surrounding land use plans and policies.

## Methodology

### *Study Area*

The study area was defined based on the expected impacts of the proposed action during construction and operation. The study area includes the building footprints of the Ocean Pavilion and Animal Care Center (potential location), with a 500-foot buffer from the footprint boundaries, to include adjacent properties where impacts may occur (Figure 5).

Current zoning and land uses were identified by reviewing local, state, and regional land use plans and policies documents, including online resources such as King County Assessor's records. These uses were verified by observing current conditions.

### *Existing Zoning, Land Use, and Other Classifications*

#### ***Ocean Pavilion***

The two parcels in the footprint of the building in the action alternatives include King County Parcel No. 7666202380 at 1529 Alaskan Way, which is currently a parking lot, and the Alaskan Way right-of-way (Figure 6).

The parcel at 1529 Alaskan Way is zoned Downtown Harborfront 2, as are the other parcels in the study area between Alaskan Way and the Alaskan Way Viaduct. Zoning of the remaining parcels in the study area is Downtown Harborfront 1 west of Alaskan Way, and Pike Market Mixed east of the Alaskan Way Viaduct (Figure 7).

To the west, the building footprint and a portion of the surrounding study area is within the Shoreline District and regulated by the SMP. This area is designated as an Urban Harborfront shoreline environment. Pier 59 is also within the Urban Harborfront Historic Character Area.

The 1529 Alaskan Way parking and the Alaskan Way roadway are currently used for transportation purposes. According to King County Assessor's records and direct observation, land use of surrounding parcels includes the following:

- Museum (Seattle Aquarium)
- Park/Open Space (Piers 62/63 Park and Waterfront Park)
- Multifamily Residential (Waterfront Landings Viaggio building, Hillclimb Court Condominiums and Fix Madore building)
- Parking (lot bounded by Union Street, Alaskan Way South, and Western Avenue)
- Commercial Office and Retail (Antiques Market at 1400 Alaskan Way, Offices at 1415 Western Avenue and 1426 Alaskan Way)
- Mixed Use (MarketSpace development, consisting of multifamily residential, parking, and commercial space)

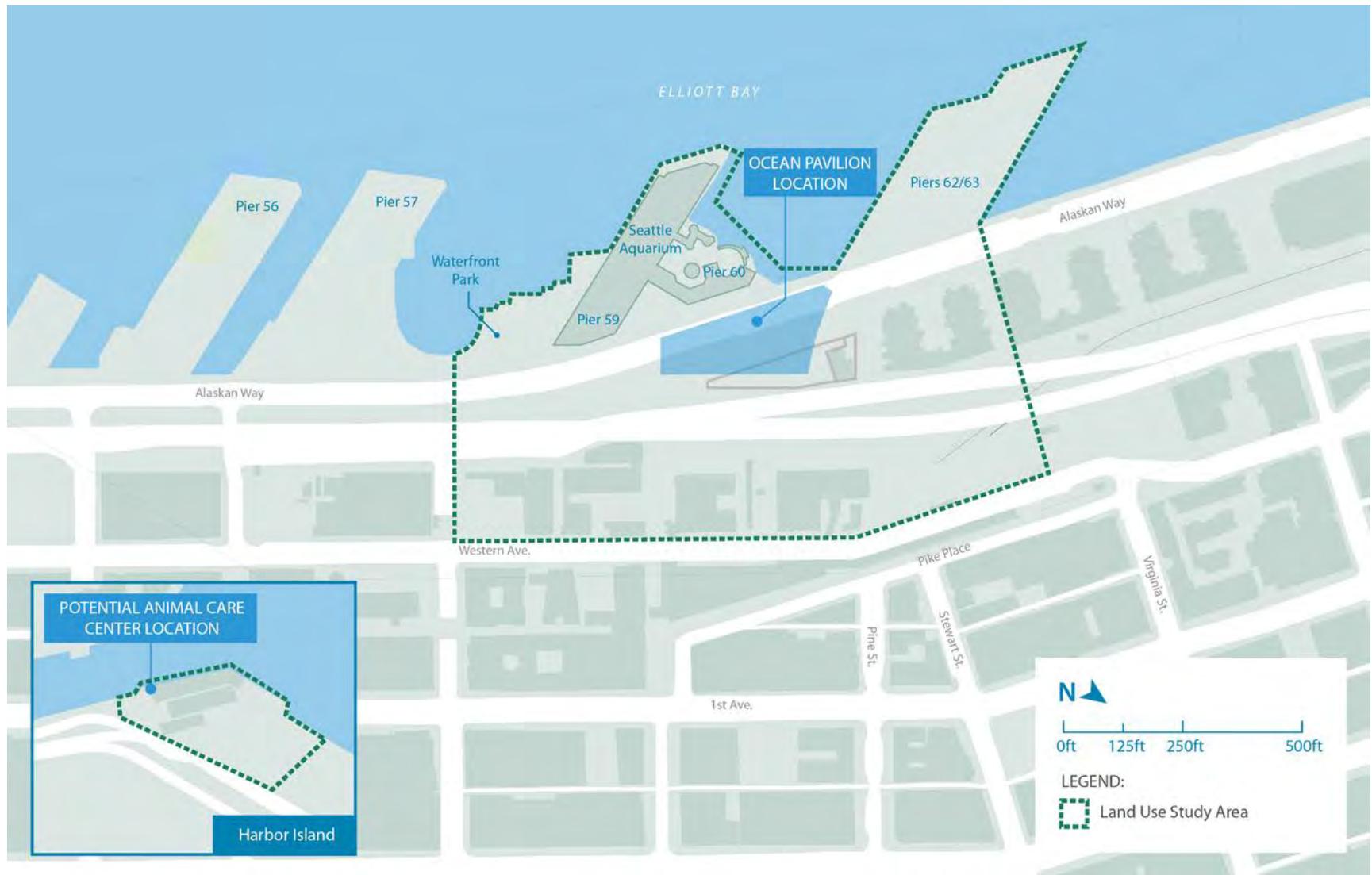
A parcel to the north of the Ocean Pavilion area was previously a commercial office building at 1528 Alaskan Way, but the building is scheduled for demolition under the AWVRP. The 1528 Alaskan Way parcel is currently identified for transportation use, and is a planned staging area for AWVRP.

Two Seattle Parks and Recreation-owned and operated parks are located in the study area: Piers 62/63 Park and Waterfront Park. The Piers 62/63 Park previously hosted special events and is now in the process of being rebuilt in partnership with Friends of Waterfront Seattle. The rebuilt pier will be a place to view Elliott Bay, the Olympic Mountains, and the Seattle skyline to the east, and host events and activities. There will also be a floating dock for access to the water. Waterfront Park hosts two viewing platforms, benches, and picnic tables, and will be redesigned by the City to improve access, safety, and flexibility, while offering views of Elliott Bay and the Olympic Mountains.

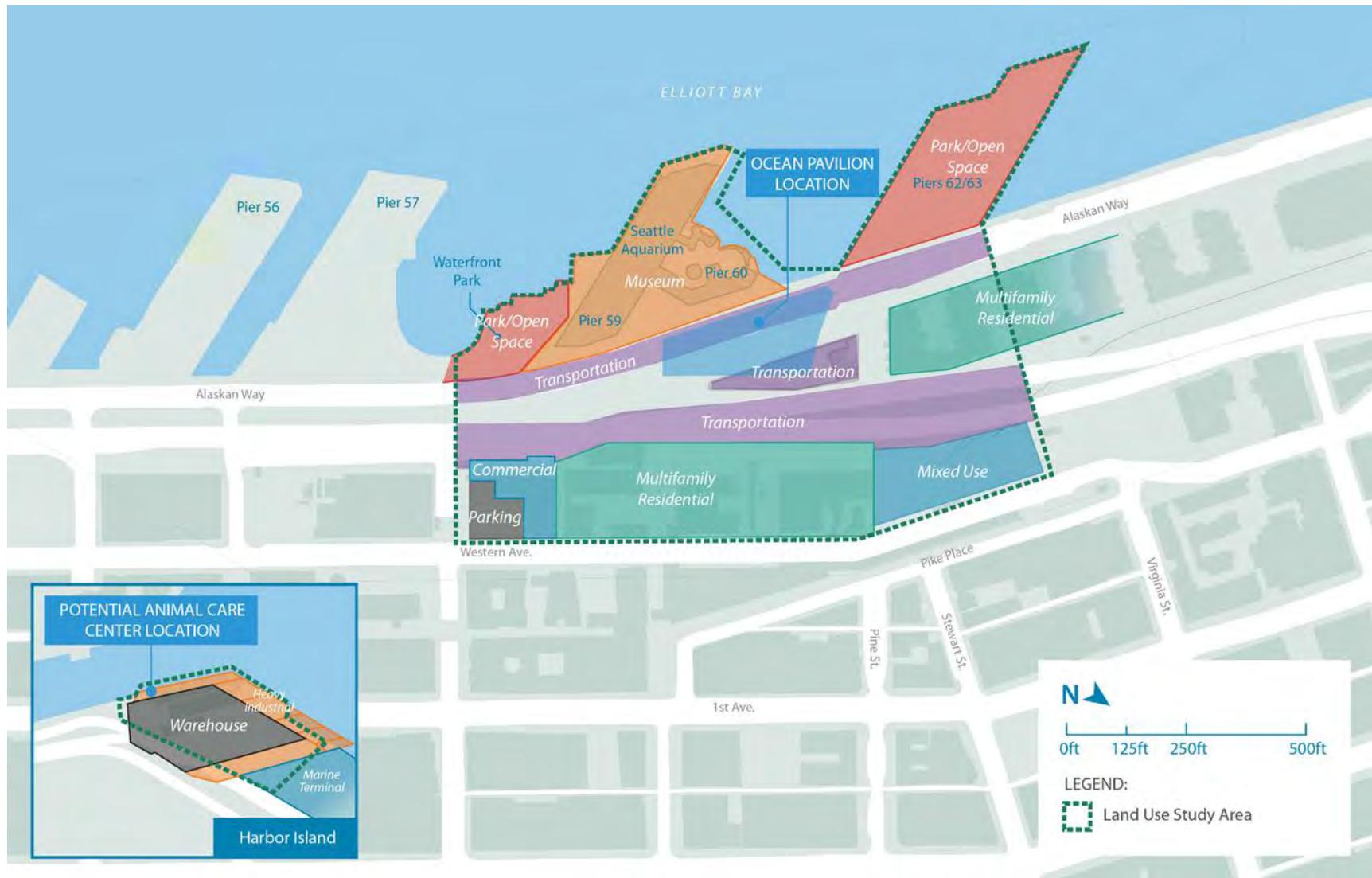
### ***Animal Care Center***

The King County parcel in the study area is No. 7666703020. It is zoned Industrial General 1, as are the surrounding parcels. The established land use of the parcel is Warehouse, and the building is currently used for light industrial activities and storage. Parcels to the north, west, and east are classified as Industrial, and to the south as Parking. Although the former Fisher Flour Mill building is more than 50 years old, the land use is not classified as Historic Property; the building is not a City of Seattle Landmark and has not been evaluated for listing in state or national preservation registers.

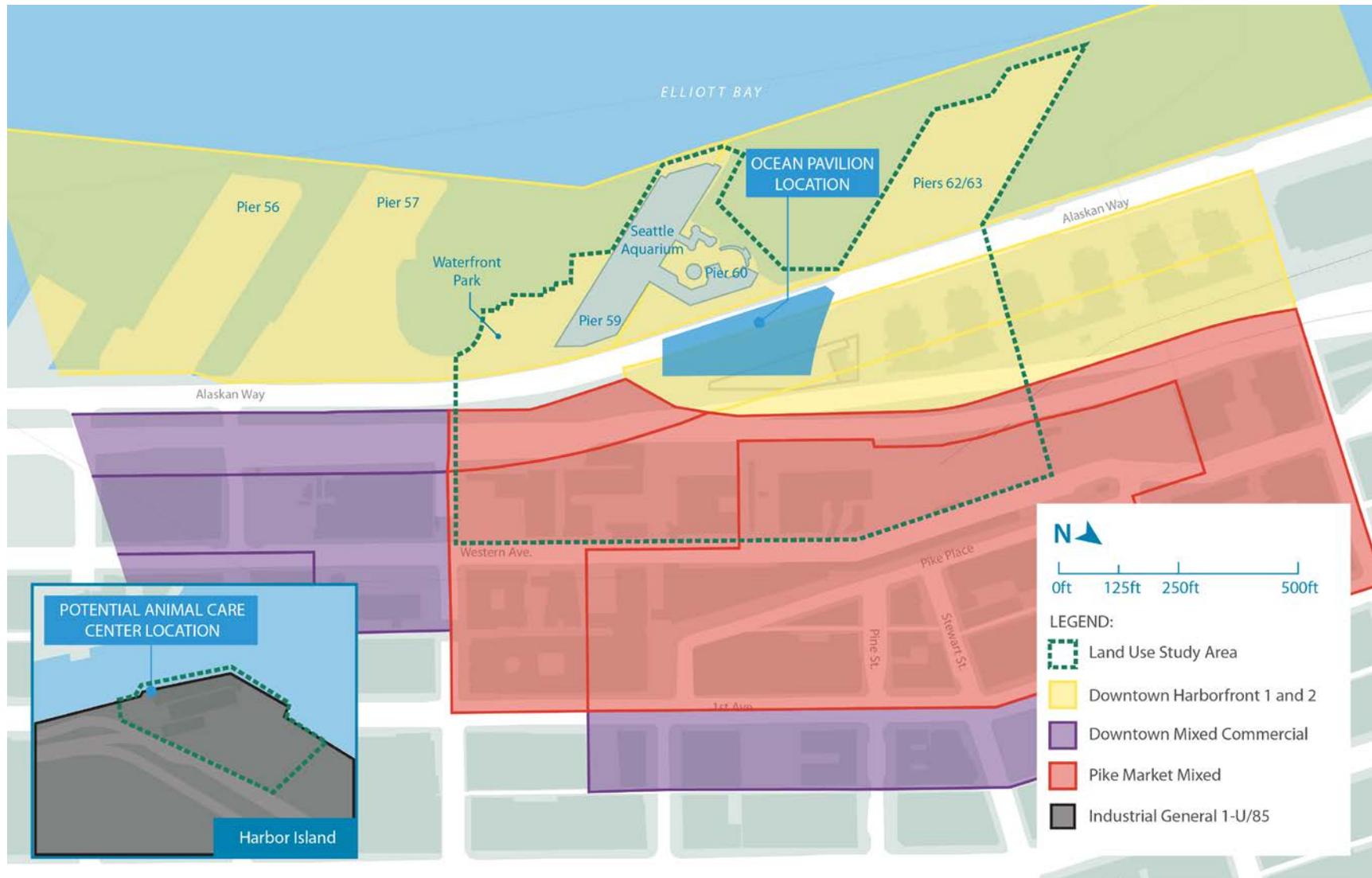
There are no retail businesses or residences on the parcel or surrounding parcels. Part of the parcel is within the Shoreline District and regulated by the SMP. This area is designated as an Urban Industrial shoreline environment.



**Figure 5**  
**Land Use Study Area**



**Figure 6**  
**Existing Land Use**



**Figure 7**  
**Existing Zoning**

## Technical Approach

The analysis of impacts included reviewing existing land use plans and primary goals, current zoning, critical areas, shoreline designations, special districts, parks, and recreational facilities. Long-term impacts were evaluated by identifying conversions, restrictions, and potential long-term land use changes within the study area. Construction impacts were evaluated by identifying construction activities that could temporarily limit, disrupt, or displace current land uses in the study area. If necessary, avoidance or minimization measures, or compensatory mitigation for unavoidable impacts, have been recommended.

## Impact Thresholds

The indicators for assessing potential impacts on land use are identified in Table 2, along with the criteria that was used to determine the degree of impact.

**Table 2**  
**Impact Thresholds for Land Use**

Impact Indicators	Criteria for Determining Degree of Impact
Consistency with existing plans and policies	<p><b>Beneficial Impacts:</b> Results in uses that are more compatible with, and promote the stated goals of, existing plans and policies</p> <p><b>Minor Impacts:</b> Compatibility with surrounding uses and applicable land use planning documents; limited change to zoning or designations that does not have an associated negative economic or environmental effect</p> <p><b>Moderate Impacts:</b> Compatibility with surrounding uses and with applicable land use planning documents; limited change to zoning or designations that has a limited negative economic or environmental effect</p> <p><b>Significant Impacts:</b> Incompatible with applicable land use planning documents and causes substantial economic or environmental effects</p>
Land use conversions that disrupt communities, either natural or anthropogenic	<p><b>Beneficial Impacts:</b> Conversions from existing land uses to uses that promote the function of communities or neighborhoods</p> <p><b>Minor Impacts:</b> No conversions to existing land use(s) occur(s), or the conversions are so minor that the role and function of a community or neighborhood is not affected</p> <p><b>Moderate Impacts:</b> Conversion of existing land use(s) would occur and there is a limited negative economic or environmental effect</p> <p><b>Significant Impacts:</b> Conversion of existing land uses that causes substantial economic or environmental effects</p>
Land use restrictions or changes that may occur as a result of new facilities or programs	<p><b>Minor Impacts:</b> No land use changes are anticipated as a result of project actions, or the changes are temporary (e.g., access restrictions during construction) or are not anticipated to have effects on surrounding land uses</p> <p><b>Moderate Impacts:</b> Changes or restrictions in land use that are consistent with applicable land use planning documents and are anticipated to have limited effects on surrounding land uses</p> <p><b>Significant Impacts:</b> Land use restrictions or changes as a result of project actions that have substantial effects on surrounding land uses</p>

## Results

### *Overview*

Construction of either action alternative would result in minor construction impacts. Although both action alternatives would result in a change in land use of 1529 Alaskan Way, a long-term minor benefit is anticipated. The parcel would retain its existing transportation use because the building would incorporate pedestrian transportation as part of connectivity with the Overlook Walk. As compared to the No Action Alternative, however, the action alternatives would include a building in a space that could otherwise be fully open to the public. Both action alternatives would also add a water-oriented education use with the Ocean Pavilion. No changes would occur to zoning or other classifications, and both action alternatives are consistent with applicable plans and policies. Alternative 3 would have slightly more benefit because it preserves unobstructed public views of Elliott Bay, whereas Alternative 2 would have partially obstructed public views. Additionally, both action alternatives would improve access to the Pike Place Market from the waterfront, although this would occur to a greater extent with Alternative 3 because pedestrian access would have a more level connection with the Overlook Walk and a more visible elevator connection.

### *Construction-Related Impacts and Mitigation Measures*

For the No Action Alternative, no construction would occur; therefore, no mitigation would be required.

Both action alternatives would have the same construction-related impacts and mitigation. Access to land uses such as residences, parks and recreational facilities, and the Seattle Aquarium would change temporarily during construction. None of these disruptions would change or convert any land uses. Temporary occupation of the right-of-way at sidewalks, streets, and utility corridors would occur; however, local construction access would be provided at all times. Other disruptions that could affect land uses include an increase in traffic congestion around work zones, road closures, traffic diversions, and detour routes affecting access to residences, parks and recreational facilities, and the Seattle Aquarium. Construction equipment, staging or stockpiling of materials, fencing, or scaffolding could make the area less convenient or appealing to potential visitors. Noise levels in areas of active construction could be intermittently high, resulting in higher ambient noise levels for nearby land uses. In general, the loudest construction activities would be limited to daylight hours to the extent practicable. These impacts would be minor because there would be no conversions of existing land uses, land uses would remain consistent with existing plans and policies and land use changes (such as detours or short-term occupations of sidewalks) would be temporary.

Construction at the potential Animal Care Center would occur under either action alternative. Because no exterior construction is planned, construction would be of a much lesser magnitude. No disruptions to traffic patterns or access are anticipated. The area where the potential Animal Care Center would be located is already industrial in character; no residences, parks, or recreational or educational facilities are in the vicinity. Given the minimal construction activity and industrial setting, construction at the potential Animal Care Center would have no adverse impacts on land use.

For Alternative 2, the AWPOW EIS identified temporary adverse impacts on land use during construction, primarily related to noise, dust, congestion, loss of parking, and access changes associated with

construction (see Section 4.2 of the AWPOW EIS). No significant long-term impacts were identified; instead, the long-term impacts were anticipated to be positive (see Section 4.3 of the AWPOW EIS). Within the study area, full property acquisitions and associated land use conversions were also evaluated. The conversion of land use was not anticipated to have permanent impacts on land use trends or development activity. The AWPOW EIS identified a number of avoidance and minimization measures for potential impacts on land use during construction, including the following (see Section 16.3.1 of the AWPOW EIS):

- Maintaining access to businesses and recreational facilities
- Communicating with residents, businesses, and stakeholders
- Applying measures developed for other environmental topics, such as controlling noise and dust

Avoidance and minimization measures for minor temporary construction impacts on land uses in the area include transportation and parking as well as access to residences and parks/open space (SDOT 2016; Appendix B to the Draft EIS). These would include clearly marking roadway detours and pedestrian and bicycle routes, accommodating loading and delivery access, and use of traffic control devices and flaggers.

Avoidance and minimization measures to address increased noise levels and reduced visual quality would include minimizing light and glare (especially near condominium residences) through such means as directional lighting or light barriers, screening the construction area and adding interpretive display elements or viewing windows in screening, using low-noise emission equipment or installing silencers or sound-deadening materials, minimizing the use of generators, and limiting high-noise activities to daytime hours to the extent practicable. The contractor would need to comply with the City's Noise Ordinance for construction activities and would be expected to obtain any required variances from the City during construction, as necessary.

### *Long-Term Impacts and Mitigation Measures*

All three alternatives are compatible with applicable land use plans and policies and are expected to accomplish the following:

- Improve pedestrian connections through the waterfront
- Encourage and support planned growth
- Develop water-oriented uses of the shoreline and waterfront public facilities
- Provide opportunities for public open space and enjoyment of the shoreline and water views (although this would occur to a greater extent for Alternative 3, as described in Appendix D of the Draft EIS, in particular because Alternative 3 would provide additional public open space between the building and Pier 60, Piers 62/63, and the Elliott Bay shoreline, including space to provide a wider stairwell and viewing areas in the Overlook Walk design; additionally, the 50-foot building height in Alternative 3 would provide unobstructed public views of Elliott Bay, consistent with the policies and goals of City's Comprehensive Plan [City of Seattle 2017])
- Improve access to the Pike Place Market from the waterfront, although this would occur to a greater extent with Alternative 3 because pedestrian access would have a more level connection with the Overlook Walk and a more visible elevator connection

The two action alternatives would develop an Ocean Pavilion to accommodate an increase in future attendance and meet the objectives of the proposed action consistent with the *SEAS Seattle Aquarium Strategic Plan 2011-2030* (2011) and *A Master Plan for Expansion* (2015). These planning documents were developed in coordination with the City to integrate expansion of the Seattle Aquarium in concert with planned waterfront development.

The two action alternatives would also increase educational opportunities in the area. Providing opportunities for environmental education is identified as a goal (Land Use Goal 17.7) in the City's Comprehensive Plan (City of Seattle 2017). Under the No Action Alternative, this goal would not be met by development at the site; whereas under either action alternative, an immersive environmental education opportunity related to conservation of the marine environment would be provided by the Ocean Pavilion.

The two action alternatives would result in beneficial impacts on land use due to increased compatibility with land use plans and policy goals. As described in Table 3, Alternative 3 has a greater beneficial impact than the other two alternatives, because it better promotes several of the stated goals. Specifically, the height of the building provides for increased views of the water, more open space and better pedestrian connectivity consistent with the goals (Downtown Harborfront 2 zoning and Shoreline Access [Goal SA G7]) and policies (Shoreline Use Policy [SA P16.3]; General Development Standards Land Use Policy [LU 5.15]) of the City's Comprehensive Plan (2017). The increased landscaping on the Ocean Pavilion rooftop also better promotes the City's Comprehensive Plan Urban Design Policy for extended sustainable landscaping on typically underdesigned sites such as rooftops (Policy GS 3.6; City of Seattle 2017).

Under both action alternatives, public right-of-way would be reduced because the Ocean Pavilion would occupy a greater extent of the Aquarium Plaza space. However, both action alternatives would provide additional public open space on the roof of the Ocean Pavilion, which is a partially dedicated right-of-way. Therefore, no land use or access restrictions related to public space are identified with the action alternatives.

The operation of the Animal Care Center would continue industrial uses of Harbor Island. It is consistent with land use plans and policies, and would not convert or restrict land use. No adverse impacts are anticipated from operation of the Animal Care Center.

**Table 3**  
**Summary of Consistency with Applicable Land Use Plan Goals**

Alternative	Increased Multimodal Connectivity	Economic Development	Urban Growth	Environmental Protection and Education	Open Space and Recreation	Public Facilities and Services
1 (No Action)	No change to existing pedestrian connectivity	No additional infrastructure to draw visitors	Compatible with planned growth in the waterfront area	No changes related to environmental protection or enhancement; no environmental education component because there would be no Ocean Pavilion	No change in open space and recreation opportunities	No change in public facilities and services
2	No change to existing pedestrian connectivity as compared to the No Action Alternative	Provides substantial investment in infrastructure that supports tourist destinations and small businesses	Compatible with planned growth in the waterfront area	No changes related to environmental protection or enhancement improved opportunity for environmental education	No change in open space and recreation opportunities; elevated viewpoint (40-foot building height) would provide partially obstructed public views of the water from the roof	Includes an exterior public elevator and stairs
3	Provides an enhanced connection with the Overlook Walk as well as connections to Pike Place Market	Provides substantial investment in infrastructure that supports tourist destinations and small businesses	Compatible with planned growth in the waterfront area	Allows for more landscaping on the public plaza and roof, improved opportunity for environmental education	Elevated viewpoint (50-foot building height) allows for 180-degree views of the water above Pier 59 from the roof; moving the building south creates direct public open space with public views of the water on the north side of the Ocean Pavilion	As a result of moving the public elevator and stairs to the south, there would be closer proximity and more direct connection to the existing Seattle Aquarium

No adverse impacts are anticipated under either action alternative; therefore, no mitigation measures are proposed. The range of potential long-term impacts associated with the Office of the Waterfront and Civic Projects' potential design refinements would be similar to those described previously, including consistency with applicable land use plan goals described in Table 3.

### *Cumulative Effects and Mitigation Measures*

A number of projects are expected to be completed before and during the construction and operation of the Ocean Pavilion. As discussed previously, these include AWPOW, AWVRP, and EBSP, in addition to renovations of Piers 62/63 and Waterfront Park (Seattle Parks and Recreation), pedestrian improvements at Pike and Pine Streets (Office of the Waterfront and Civic Projects), utilities renovation and reduction of Combined Sewer Outfalls (Seattle Public Utilities), replacement of the Seattle Ferry Terminal at Colman Dock (Washington State Department of Transportation), and extension of the streetcar line (Seattle Streetcar). See the Ocean Pavilion Draft EIS for more detailed information on these projects.

For the action alternatives and most of the reasonably foreseeable future projects and actions, temporary construction impacts are expected to occur. These are primarily due to temporary changes in access and use during construction. Through its Street Use Permit process and consistent with SMC 15.32.050, SDOT would coordinate the construction needs and impacts of this project with the other infrastructure and development projects in the study area, including potential overlapping elements of the AWPOW projects' construction. SEAS would participate in construction coordination processes that SDOT establishes for major projects. With this mitigation, no significant adverse cumulative effects from construction are anticipated.

The proposed action is consistent with land use goals and policies and planned future development as described here. Additionally, none of the reasonably foreseeable future projects or actions have been identified as having long-term adverse impacts on land use. Most would be beneficial, increasing pedestrian and bicycle connectivity, promoting public use of and access to the waterfront, and protecting the environment. Because no moderate or significant long-term impacts are anticipated from any of the action alternatives and no long-term impacts have been identified for other reasonably foreseeable projects, no long-term cumulative effects are anticipated and no mitigation measures are proposed.

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Appendix D  
Aesthetics and Scenic Resources Technical  
Memorandum

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August 2018

Seattle Aquarium Ocean Pavilion

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# Aesthetics and Scenic Resources Technical Memorandum

**Prepared for**

City of Seattle Department of Parks and Recreation  
Seattle Aquarium Society

**Prepared by**

Anchor QEA, LLC

## **Executive Summary**

The purpose of this technical memorandum is to describe the potential impacts on aesthetics and scenic resources associated with the proposed Seattle Aquarium Ocean Pavilion (Ocean Pavilion). This memorandum evaluates the potential effects of project construction and operation on these resources for two action alternatives as well as a No Action Alternative. The evaluation was performed consistent with State Environmental Policy Act (SEPA) policies, following Federal Highway Administration visual analysis guidelines. In addition to SEPA-protected views, other public, and private views were assessed. The City of Seattle Department of Parks and Recreation, in coordination with the Seattle Aquarium Society (SEAS), is preparing a SEPA Environmental Impact Statement (EIS) to evaluate the proposal, which includes two different building options located near the existing Aquarium at Piers 59 and 60 along the Seattle waterfront and an off-site Animal Care Center that may be located on Harbor Island at the former Fisher Flour Mill or similar facility.

The construction of an "Aquarium Pavilion" was reviewed by the City of Seattle (City) as part of the Alaskan Way, Promenade, and Overlook Walk (AWPOW) SEPA EIS (SDOT 2016). Information and analysis from the AWPOW EIS is incorporated by reference into the analysis and findings of this memorandum, in accordance with Seattle Municipal Code (SMC) 25.05.635 and Washington Administrative Code (WAC) 197-11-635.

The Ocean Pavilion is being proposed as a separate and independent project from the AWPOW and other ongoing projects along the central waterfront. However, the proposal is intended to anchor these projects and reconnect the city with Puget Sound and its central waterfront. This memorandum summarizes the relevant findings from the AWPOW EIS, describes changes to the Ocean Pavilion proposal that have occurred since that time, and evaluates whether the changes would result in any potential additional construction and long-term impacts on aesthetics and scenic resources.

The findings of this aesthetics and scenic resources analysis indicate that while moderate construction-related impacts are anticipated, only minor long-term impacts from the two action alternatives are anticipated. Table 1 provides a summary of impacts.

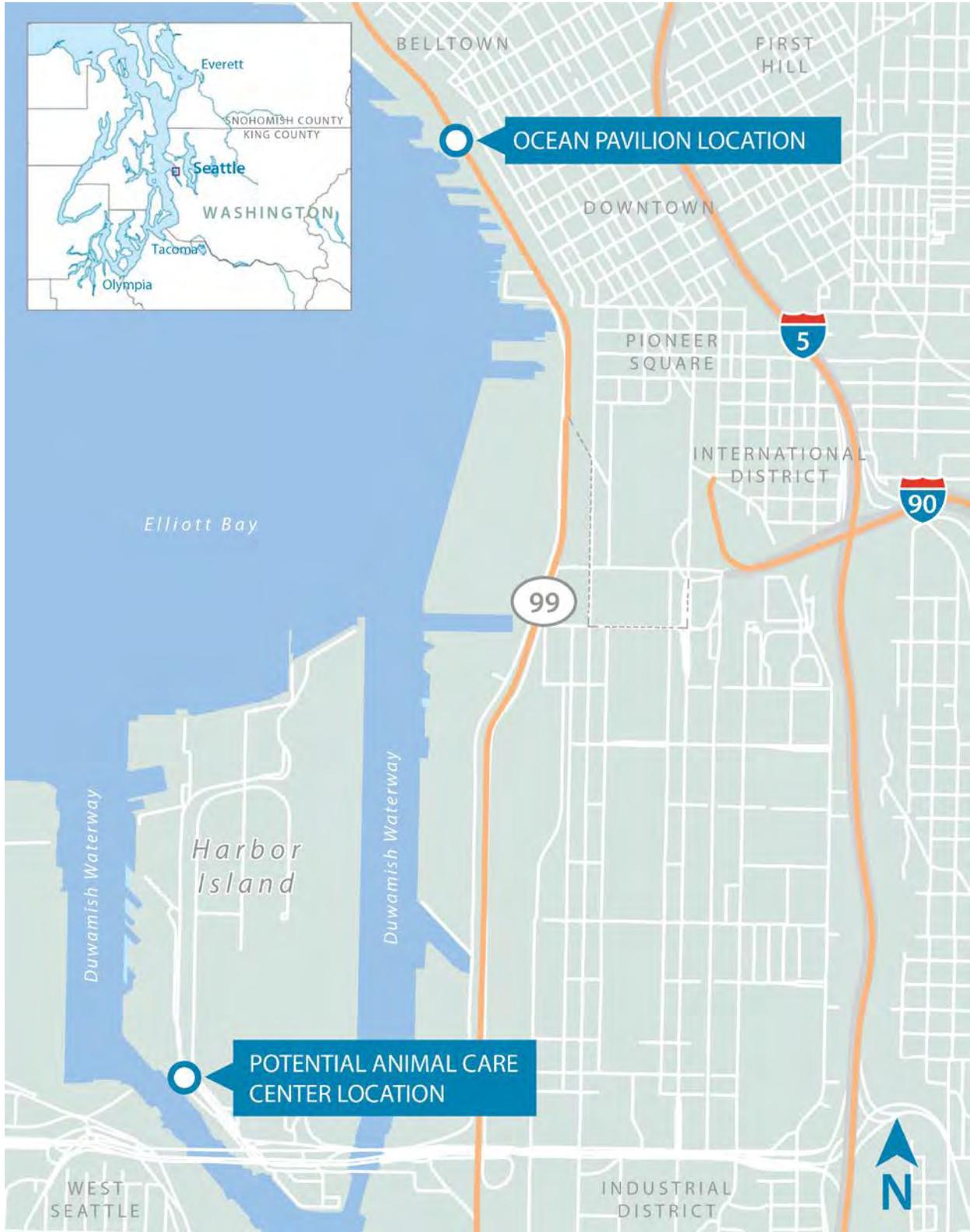
**Table 1**  
**Aesthetics and Scenic Resources Impacts Summary**

Alternative	During Construction	Long Term
1 (No Action)	<p><b>No Adverse Impact</b></p> <p>No construction, therefore no construction-related impacts</p>	<p><b>Moderate Benefit</b></p> <p>Beneficial effects to the general public from increasing the visual quality of existing important views of the water, sky, and background landforms as described in the AWPOW EIS (SDOT 2016b)</p>
2	<p><b>Moderate Impact</b></p> <p>Potential short-term impacts associated with construction equipment, temporary facilities and staging, soil/dust/exhaust, temporary lighting, and traffic pattern changes; SEPA-protected view impacts may include loss of some views of the downtown city skyline to the north from Waterfront Park's adjacent sidewalk and potential loss of some views of Puget Sound from Victor Steinbrueck Park dependent on the location and height of the construction crane and other equipment</p>	<p><b>Minor Impact</b></p> <ul style="list-style-type: none"> <li>• SEPA-protected view impacts may include changes to some views of the downtown city skyline to the north from Waterfront Park's adjacent sidewalk</li> <li>• Slight impact from public and private views through the limited obstruction of natural and city skyline views (natural harmony), and obstruction of the street grid limiting viewer understanding and wayfinding cues (project coherence); these impacts would be most pronounced from viewpoints looking south or looking east and are due to the building location projecting out prominently from the Overlook Walk</li> <li>• However, this alternative is currently designed to a 40-foot-tall building and adjoining Overlook Walk, while current code would allow for a 50-foot-tall building; this alternative's current height obstructs slightly less views of the water and background landforms from viewpoints looking west, compared to Alternative 3</li> </ul>
3	<p><b>Moderate Impact</b></p> <p>Potential short-term impacts associated with construction equipment, temporary facilities and staging, soil/dust/exhaust, temporary lighting, and traffic pattern changes; SEPA-protected view impacts may include loss of some views of the downtown city skyline to the north from Waterfront Park's adjacent sidewalk and potential loss of some views of Puget Sound from Victor Steinbrueck Park dependent on the location and height of the construction crane and other equipment</p>	<p><b>Minor Impact</b></p> <ul style="list-style-type: none"> <li>• SEPA-protected view impacts may include changes to some views of the downtown city skyline to the north from Waterfront Park's adjacent sidewalk</li> <li>• Slight impact from public and private views through the limited obstruction of natural and city skyline views (natural harmony), and obstruction of the street grid limiting viewer understanding and wayfinding cues (project coherence); these impacts would be most pronounced from views looking west and looking north due to the building's location and taller height (50 feet) compared to Alternative 2</li> <li>• However, the building has better integration within the Overlook Walk compared to Alternative 2</li> <li>• Alternative 3 also has a more level connection with the Overlook Walk and connections to Pike Place Market that increases legibility and wayfinding at this location</li> </ul>

## Introduction and Project Description

The Ocean Pavilion would be located in Seattle, King County, Washington (Figure 1). The building would be constructed east of the existing Aquarium, and east of the future pedestrian promenade along the waterfront constructed as part of the AWPOW projects. A potential off-site Animal Care Center may be located on Harbor Island at the former Fisher Flour Mill or a similar facility (Figure 1). Three alternatives

have been developed for the Ocean Pavilion: a No Action Alternative and two action alternatives. A full description of these alternatives are is included in the Draft Ocean Pavilion EIS, with summary descriptions provided within this technical memorandum.



**Figure 1**  
**Vicinity Map**

## ***Alternative 1: No Action Alternative***

Under Alternative 1 (No Action Alternative), the Ocean Pavilion would not be built. However, conditions in the area would be different from those that exist at the time this EIS is published (2018). The analysis for the No Action Alternative is based on the expected conditions in 2030, which is the year used for the assessment of future conditions. The following major changes are assumed to be in place under the No Action Alternative:

- The AWPOW projects identified in the preferred alternative within the AWPOW EIS would be completed. The AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects' design process.
- The Alaskan Way Viaduct Replacement Project (AWVRP) would be completed, with the viaduct eliminated and the State Route 99 tunnel in operation.
- The Elliott Bay Seawall Project (EBSP) would be completed.
- Ongoing public and private development projects that are currently being permitted through the Seattle Department of Construction and Inspections would be completed, with an additional projected baseline growth of 1% per year.

A description of the AWPOW's selected preferred alternative is included in Section 2.3 of the AWPOW EIS (SDOT 2016). The main difference between the two is that the No Action Alternative for Ocean Pavilion does not include construction of the "Aquarium Pavilion," which was one option described as part of the AWPOW's preferred alternative. Descriptions of the AWVRP and EBSP are described in Section 2.2 of the AWPOW EIS. Figure 2 shows the No Action Alternative, which serves as the baseline against which the potential impacts of the action alternatives are evaluated.

### ***Office of the Waterfront and Civic Projects' Potential Design Refinements***

The AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects' design process. As of the publication of this EIS, the conceptual design of the Overlook Walk lid (or bridge) connecting the waterfront to Pike Place Market over Elliott Way would be narrower (90 feet versus 190 feet) and higher (50 feet versus 40 feet) than the design in the AWPOW EIS. In addition, Building B would be replaced by a smaller one-story building with a covered outdoor café and seating area on its roof. Public stairs and elevators would maintain connections from the Overlook Walk to the waterfront. These refined conditions were used in assessing the range of impacts of the action alternatives as compared to No Action Alternative and potential design refinements.

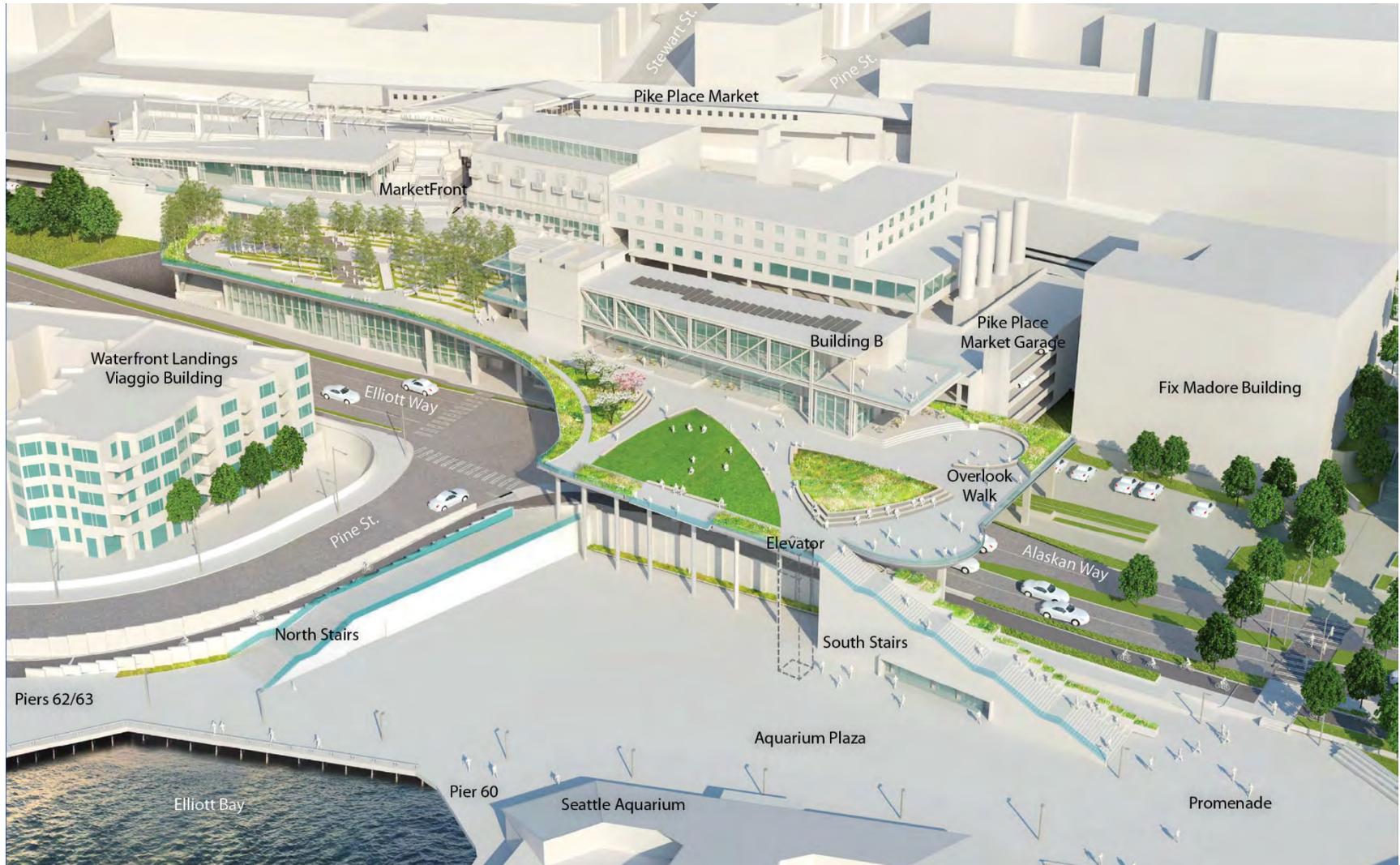
## ***Alternative 2***

Alternative 2 includes the Ocean Pavilion concept evaluated as one option for the preferred alternative under the AWPOW EIS (referred to as the "Aquarium Pavilion" in the AWPOW EIS). Alternative 2 includes an approximately 48,000-square-foot building featuring an interior elevator and connections to a fully accessible route between the waterfront and Pike Place Market. The orientation of the proposed building would locate it farther north and closer to Pine Street, compared to Alternative 3 which would be located farther south. The building would be approximately 40 feet tall with a rooftop waterfront viewing space accessible

from the Overlook Walk. An off-site Animal Care Center would be included under Alternative 2, as described herein. Figure 3 shows Alternative 2.

### *Alternative 3*

Alternative 3 includes building the Ocean Pavilion east of the existing Aquarium on Alaskan Way and the future Waterfront Promenade. The Ocean Pavilion would be located farther south than Alternative 2, resulting in a shorter distance from the Ocean Pavilion entrance to the existing Seattle Aquarium entrance and improved accessibility for visitors, volunteers, staff, and Aquarium programs. The proposed building would include an approximately 48,000-square-foot public aquarium featuring an exterior elevator and connections to a fully accessible route between the waterfront and Pike Place Market. The building would be approximately 50 feet tall with unobstructed public views of Elliott Bay over the existing Seattle Aquarium on Pier 59 and would be accessible from the future Overlook Walk. This alternative also includes an off-site Animal Care Center, as described herein. Figure 4 shows Alternative 3.



**Figure 2**  
**Alternative 1 (No Action)**

Source: LMN Architects



**Figure 3**  
**Alternative 2**

Source: LMN Architects



**Figure 4**  
**Alternative 3**

Source: LMN Architects

### ***Off-Site Animal Care Center for Alternatives 2 and 3***

An off-site Animal Care Center is proposed to address both short- and long-term animal care, veterinary, and rehabilitation needs and to meet the Association of Zoos and Aquariums' standards. The most immediate need is to provide necessary animal care to support the opening of the Ocean Pavilion and the turtle rehabilitation program. The Animal Care Center would also be a long-term care facility that supports SEAS' exhibit animal population, animal rehabilitation, and research efforts.

The Animal Care Center would be designed to meet peak animal care demand for the Aquarium exhibits and programs. This would include approximately 15,000 square feet of interior space, plus an additional 5,000 to 7,000 square feet of area surrounding the facility for outdoor animal holding, water storage, and parking. The center is intended to meet the care needs of both warm- and cold-water fish, birds and mammals, and rehabilitating animals. The center would also provide long-term care, including life support systems, with flexibility in the design to accommodate future needs.

The Seattle Aquarium plans to have the Animal Care Center constructed and operational 2 to 3 years prior to the opening of the Ocean Pavilion. This would allow for coral propagation, animal quarantine, and acclimation of the animals for the exhibits. The Aquarium has identified a potential site at the former Fisher Flour Mill property on Harbor Island, which is owned by King County. While the Fisher Flour Mill site is a potential location for the center, a similar location could be pursued. It is not anticipated that the impacts identified in this analysis would differ at a similar location.

### ***Construction Methods for Alternatives 2 and 3***

Construction methods for the action alternatives are described in the following subsection. It is anticipated that construction methods would be similar for both action alternatives. During construction, access to existing utilities would be maintained for surrounding property uses.

#### ***Construction Activities***

It is anticipated that construction at the Ocean Pavilion would require the following activities:

- Open excavation for the basement of the Ocean Pavilion, which would reach about 20 feet below the ground surface, with 48-inch-diameter piles extending at varying depths
  - It should be noted that for Alternative 2, the AWPOW EIS shows 60 to 80 feet of excavation proposed in this area (SDOT 2016: Figure 10-2, page 245). It is expected that this depth is specific to the future Overlook Walk and other improvements and depths of that magnitude would not be required to construct the Ocean Pavilion.
- Dewatering of excavation areas below the water table or implementing soil freezing treatments to provide a dry work area as necessary
- Protecting, relocating, and/or connecting utilities
- Using best management practices to protect water quality and reduce erosion (may include installation of silt fencing, covering of stockpiled soil, and collection and treatment of construction stormwater runoff)
- Drilling shafts for piers to support the building, including exterior elevators or stairwells as necessary

- Removing existing knock-outs in the adjacent seawall under Pier 60 to connect the overwater intake pipe, seawater discharge, and utilities and infrastructure between the Ocean Pavilion and existing Seattle Aquarium buildings
- Erecting structural components and installing mechanical and other building features, using a crane tower for hoisting
- Potentially using one barge for 3 to 8 weeks, located between Piers 62/63 and Pier 60 for delivery of acrylic windows for the exhibits

Construction at the Animal Care Center would be limited to the building interior. No substantial modifications or new construction would be required to the exterior or surrounding areas.

### ***Construction Staging***

It is anticipated that areas within or near the proposed action (e.g., Aquarium Plaza) would be used for staging construction and storing materials, equipment, and temporary construction trailers.

### ***Construction Timing***

Construction of the Ocean Pavilion is expected to take up to approximately 4 months for early foundation work and 24 months for general construction. Preparation of the off-site Animal Care Center is expected to take approximately 9 months and would occur in advance of construction of the Ocean Pavilion.

### ***Worker Parking, Access, and Haul Routes***

The Ocean Pavilion contractor is expected to establish a worksite office, which could be located in existing office space near the Seattle Aquarium or in a mobile facility in the established laydown area or nearby. A limited number of construction workers may be able to park at the worksite office or on the work site, others could use off-street parking garages near the Aquarium, and some may use transit and walk to the work site. The Animal Care Center contractor is anticipated to establish a construction office in existing space within the building that would house the Animal Care Center. Very little parking demand is expected to be generated during build out of the Animal Care Center.

Construction activities would generate traffic for equipment and removing debris and soil. The contractor would determine the best construction methods, as permitted by the City and in conformance with the project construction plans.

## **Regulatory Context**

State and local regulations and policies related to visual resources in the Ocean Pavilion study area are discussed in this section. The aesthetic preferences of viewers that can be derived from these documents include the importance of preserving scenic waterfront and natural area views and design of new development that sensitively fits within the character of the surrounding built environment.

### ***State Laws, Plans, and Policies***

Revised Code of Washington (RCW) 43.21C.020 notes the responsibility to “assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.” The SEPA

process considers short- and long-term direct and indirect impacts as well as cumulative impacts on aesthetics (WAC 197-11-060 and WAC 197-11-444). Aesthetic elements of the environment consider height of proposed structures, principal exterior building material, altered/obstructed views, and measures to reduce impacts.

Separate from the SEPA rules and policies, there is also a provision of the Shoreline Management Act related to residential view impacts. RCW 90.58.320 states:

No permit shall be issued pursuant to this chapter for any new or expanded building or structure of more than 35 feet above average grade level on shorelines of the state that will obstruct the view of a substantial number of residences on areas adjoining such shoreline except where a master program does not prohibit the same and only then when overriding considerations of public interest will be served.

### *Regional Plans and Policies*

The Vision 2040, Puget Sound Regional Council (2009) plan's Environmental Goal notes the aesthetic value of natural environments, noting these benefits occur within as well as outside urban growth areas.

### *Local Plans and Policies*

The Seattle Comprehensive Plan: Seattle 2035 (City of Seattle 2017) has an urban design goal (Goal GS G3) to preserve and enhance the City's unique character and "sense of place" that includes the historical and natural setting, community identity, and human-scaled development. The urban design section provides specific natural environment policies that emphasize protection and respect of natural features, and access through both visual and physical connections to natural surroundings and the waterfront (GS 3.1, 3.2, 3.4, and 3.5). Built environment policies note the importance of tree canopy for aesthetics (GS 3.8), and promoting neighborhood development that has varied building forms/heights and is legible to contribute to an attractive and walkable character (GS 3.10 and GS 3.18). Urban form goals for the downtown neighborhood include protecting the special character of the neighborhood's many parts, enhancing the pedestrian environment including ensuring light and air at the street level, preserving important views, and promoting the "spectacular" natural context (DT-G4). Shoreline goals include enhancing public access opportunities and maintaining historic characteristics (DT-G8).

The SMC establishes land use codes, Shoreline Master Program, and SEPA policies for the protection of public views including from specific public parks, corridors, and scenic routes (SMC 23.49.024, SMC 23.60A.170, and SMC 25.05.675.P), and ensuring light and glare of considered in project design (SMC 25.05.675.K). SEPA-protected views include Puget Sound waterfront and natural scenic landforms (Olympic Mountains, Mount Rainier), the downtown skyline, and specific views of distinctive structures (e.g., Space Needle) from specified parks, view corridors, scenic routes, and parks. There are no private view protections provided under SEPA rules and policies.

## Methodology

The approach that was applied in this analysis is similar to that of the AWPOW EIS, in its use of the Federal Highway Administration visual impact assessment process (FHWA-VIA), but also uses the updated FHWA-VIA guidance developed in 2015 (U.S. Department of Transportation 2015).

The FHWA-VIA process includes the following four phases:

- **Establishment:** Defines the regulatory context and the study area based on project visibility and the visual character of the proposed project
- **Inventory:** Defines key viewpoints based on project visibility and affected populations that would experience view changes, and describes the visual character and visual quality of the affected environment
- **Analysis:** Evaluates impacts on visual quality based on the compatibility of impacts (ability of the environment to absorb project changes in surrounding environment) and the sensitivity of viewers
- **Mitigation:** Defines enhancement efforts to be included in the project design; this phase is often completed following selection of a preferred alternative

The study area boundary is described herein, and defines the one “landscape unit” used for the analysis. Landscape units are the geographic unit of a visual assessment and have a particular visual identity (U.S. Department of Transportation 2015). Because of the limited project footprint compared to AWPOW, only one landscape unit is established. Within the foreground views of this landscape unit, key viewpoints were selected and representative photographs were taken. These photographs and field observations were used to provide a baseline assessment of existing conditions, and the photographs were also used as a base with modeled structure modifications and design features to illustrate changes to the existing views.

Following publication of the visual assessment within the AWPOW EIS in 2015, new updates to the FHWA-VIA guidance were made that relate to the inventory and analysis phases through the components of visual quality, which have changed from levels of “vividness, intactness, and unity” to levels of “natural harmony, cultural order, and project coherence.” Visual quality is the experience of having pleasing visual perceptions, and can depend somewhat on the congruity of what the “eye sees and the mind wants to see” (U.S. Department of Transportation 2015).

Viewers evaluate the degree of natural harmony (pleasing combination of elements), cultural order (regular, neat arrangement of elements), and project coherence (ease of understanding of a view) in determining how pleasing a view is. The change to these components in the latest FHWA-VIA guidance may reflect an understanding that while views of important and memorable visual landmarks should be inventoried and preserved, vivid elements of a project may not sensitively fit into the surrounding environment—in effect, distinctive proposals are not always aesthetically pleasing.

## *Study Area*

The study area delineates places in the surrounding landscape where viewers may perceive a change in visual character and visual quality. Because changes to the Animal Care Center would be to the interior of an existing building, and no visual impacts are anticipated with the Animal Care Center, it is not included in

the study area. The study area is adapted from the project viewshed presented in the AWPOW EIS, using a smaller study area and refining project-level views to include a foreground view area where changes to the view would be more noticeable and, barring obstructions, would be seen from the street and public lands, and a background view area where view changes would be less perceptible to viewers, except for those looking west from upper floor windows.

### ***Affected Environment***

The affected environment represents the conditions in the study area as of 2018, before construction of the Ocean Pavilion. The analysis would compare the No Action Alternative with the action alternatives. This section provides an overview of the affected environment and describes the overall visual character, affected viewers, and visual quality levels (based on natural harmony, cultural order, and project coherence).

### **Overview**

The project landscape unit is centered around the waterfront along Alaskan Way and is bounded by Puget Sound to the west, Downtown's Fourth Avenue to the east, Belltown's Battery Street to the north, and Pioneer Square's Yesler Way to the south. The waterfront and Pike Place Market are regional destinations for tourism, and the surrounding area hosts a wide range of commercial, office, residential, and open space uses.

### **Visual Character**

The natural environment is dominated by the open water of Puget Sound, views of West Seattle and Bainbridge Island, and background views of the Olympic Mountains to the south and west of Elliott Bay. The landform includes flat, filled land along the waterfront and steep, terraced hillsides rising up east of Alaskan Way to First Avenue. Given the highly urbanized landscape, vegetation is limited and mostly consists of ornamental species (e.g., a variety of mostly deciduous street trees, perennial plantings within medians), turf within Victor Steinbrueck Park, and west of Alaskan Way temporary grey-metal planter boxes with a variety of small trees and ornamental flowers and grasses.

The built environment is quite legible, aided by a strong street grid, though a grid that pivots at Stewart Street. Buildings and structures comprise a mixture of styles and ages, ranging from historic piers and low-rise buildings to modern steel and glass high-rises. In general, continuity of building heights exists with low-rise structures along the waterfront, predominately mid-rise structures in the hillclimb areas, and high-rise buildings farther east. The exception to this continuity on the waterfront is the Seattle Great Wheel, a Ferris wheel that stands 175 feet tall above Pier 57. Ground-level parking lots and loading areas are interspersed throughout the landscape unit, but are fairly limited given development trends in the city.

Affected viewers include a mixture of tourists, local workers, residents, and commuters. Viewers with closer proximity views, longer exposure to views (office workers or residents), or who are explicitly visiting the area for views (tourists) will be more sensitive to visual quality changes. Commuters passing through the area who have more limited view extents and/or limited duration of views will be less sensitive to visual quality changes.

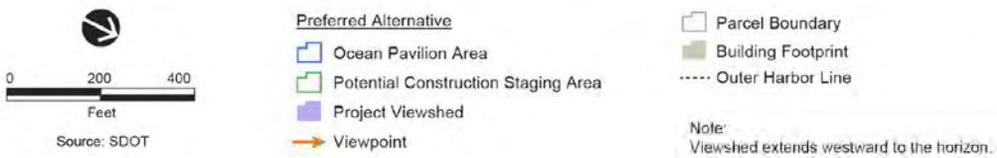
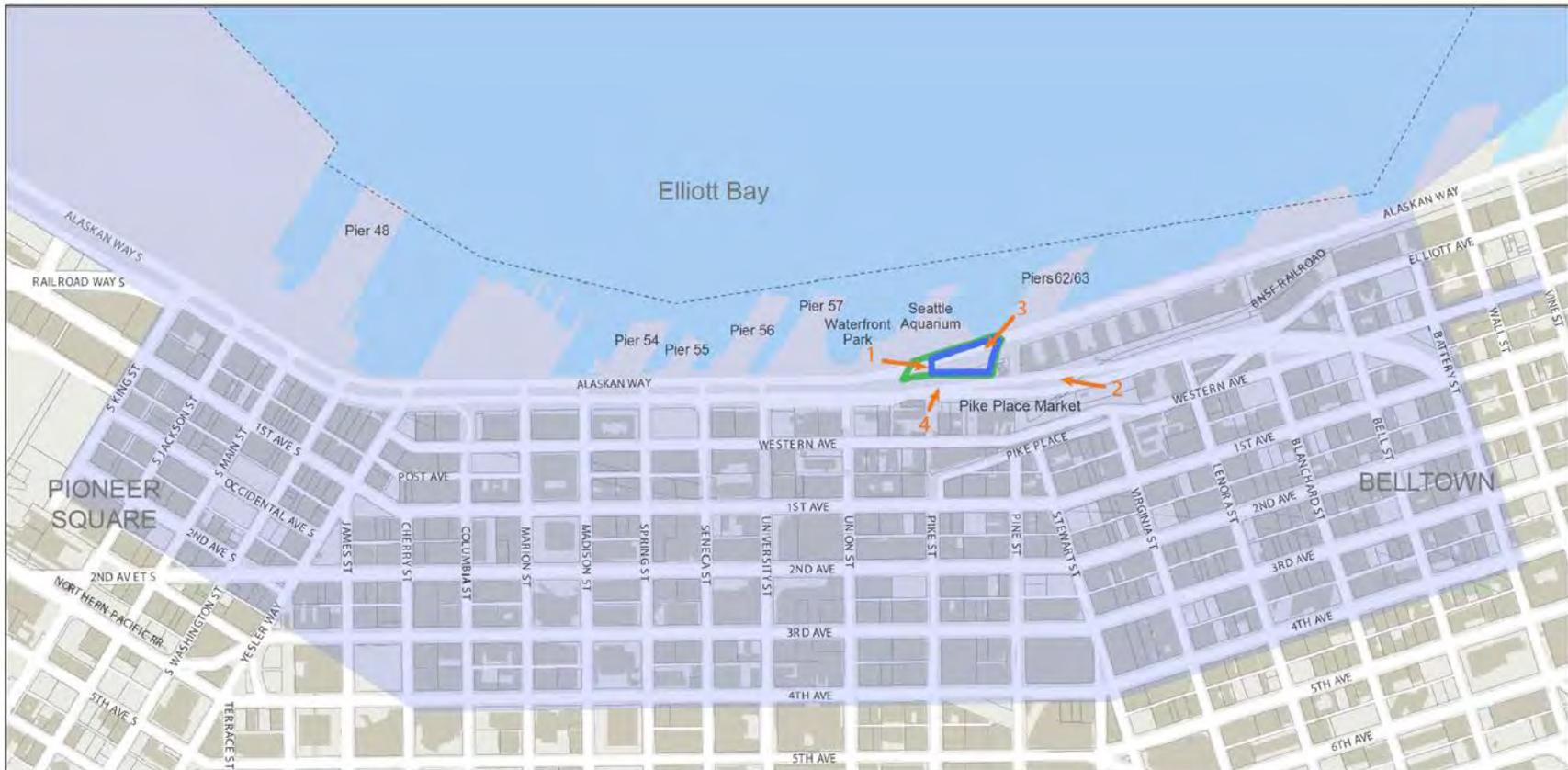
## **Key Viewpoints**

The terraced development and landforms combined with view protection policies (SMC 23.49.024, SMC 23.60A.170, and SMC 25.05.675.P) have preserved a number of view locations overlooking the project footprint. Preservation of open space on piers and street or hillclimb rights-of-way also provide ground-level views of the project footprint. Four key viewpoints (Figure 5) were selected based on the project footprint's visibility from them, their public accessibility and popularity of use, and, for some viewpoints, their protected status under SEPA. Two of these viewpoints are located in public open spaces with SEPA-protected views (Waterfront Park and Victor Steinbrueck Park), and two more viewpoints are in well-used public open spaces that have good visibility of the proposal and currently contain views of the city skyline (Piers 62/63) or limited peep-hole views of Puget Sound (Pike Street Hillclimb). All protected viewpoints, scenic routes, and view corridors are presented in Figure 6. A scenic route viewpoint along Alaskan Way was considered, but not included within this analysis because the reconfiguration of the Alaskan Way scenic route through the AWPOW projects would change some of the direct views of the water and Olympic Mountains from this route.

Although private views are not protected under SEPA rules and policies, an analysis was undertaken of the view impacts on adjacent residential uses, using the Waterfront Landings Viaggio (Waterfront Landings) building and the Fix Madore building as representative of private viewpoints.

## *Technical Approach*

The technical approach to evaluating aesthetic and scenic resource impacts follows FHWA-VIA guidance by evaluating the change to visual quality compared to the No Action Alternative. Daytime view, visual simulations were developed using three-dimensional modeling software (Rhino) for the two action alternatives, adding representative photographs of associated landscaping and people, and combining these over existing photos using Adobe Photoshop.



**Figure 5**  
**Project Viewshed and Viewpoints**

Source: LMN Architects (modified from SDOT 2016)



**Figure 6**  
**SEPA-Protected Viewpoints, Scenic Routes, and View Corridors**

Source: LMN Architects (modified from SDOT 2016)

## Impact Thresholds

Impacts on visual resources relate to changes to the environment and how viewers perceive them. Specifically the analysis examines whether the proposed action alternatives are compatible with the surrounding environment and can be visually absorbed into the environment. How viewers perceive views includes an examination of whether viewers will be sensitive to changes in the views and also relates to whether scenic views for this population will increase or decrease. Taken together, these changes define the degree of impact as either minor, moderate, or significant.

Table 2 presents impact thresholds for both the construction phase and built condition of the Ocean Pavilion.

**Table 2**  
**Impact Thresholds for Aesthetics and Scenic Resources**

Impact Indicators	Criteria Determining Degree of Impact
Assessment of the loss of SEPA-protected public views (from specified public places including parks, scenic routes, and view corridors)	<p><b>No Impacts:</b> Protected public views of significant features (i.e., Olympic Mountains, downtown skyline, or Puget Sound) are not blocked</p> <p><b>Impact:</b> Protected public views of significant features are blocked</p>
Assessment of the visual quality rating of the affected environment against the visual quality rating of the construction phase and the built conditions (e.g., operational)	<p><b>Beneficial Impacts:</b> Physical changes will enhance the natural harmony, cultural order, and project coherence (criteria of visual quality) and increase the quality of existing important views</p> <p><b>Minor Impacts:</b> No or few physical changes, important views are not affected, viewers are not likely to notice visual changes, changes in shadow or light levels and glare are not noticeable</p> <p><b>Moderate Impacts:</b> Changes in qualities of natural harmony, cultural order, and project coherence (criteria of visual quality) are noticeable, important views may be affected but are still available, viewers are aware of visual changes, changes in shadow or light level are noticeable</p> <p><b>Significant Impacts:</b> Changes in qualities of natural harmony, cultural order, and project coherence (criteria of visual quality) are pronounced, important views are blocked, viewers see and are sensitive to view changes, changes in shadow or light level are obvious</p>

## Results

### Overview

The inventory phase of the analysis defines the existing conditions, affected population, and projections based on professional observations of what this population likes or dislikes about the existing visual character of the views. The visual character, affected viewers, and visual quality levels for each key viewpoint are presented in Tables 3 and 4 for the existing conditions.

Tables 5 and 6 present the visual quality levels for each key viewpoint, which will be compared against the action alternative visual quality levels to determine impacts. Potential design refinements to the

Overlook Walk are discussed in the operational visual quality levels and impacts for the action alternatives in Tables 7 and 8. These design refinements include a narrower Overlook Walk and heights that would meet the roof of the building. Alternative 2 in the current design would reach 40 feet but design refinements could allow for a height of up to 50 feet. The Alternative 3 building and Overlook Walk height would reach 50 feet.

Because changes to the Animal Care Center would be to the interior of an existing building, there are no visual impacts anticipated during construction or in the long term.

**Table 3**  
**Public Viewpoint Summary – Existing 2018 Conditions**

Viewpoint Description	SEPA-Protected View Location	Visual Character	Affected Viewers	Visual Quality			Overall Level
				Natural Harmony	Cultural Order	Project Coherence	
Waterfront Park/ sidewalk west of Alaskan Way looking north	Yes	<ul style="list-style-type: none"> <li>• Foreground views of existing Aquarium building, sidewalk (with light-penetrating surface) and planter boxes</li> <li>• Midground view of Alaskan Way and Alaskan Way Viaduct</li> <li>• Background views of low- and mid-rise buildings (city skyline falls under SEPA-protected view) and the sky</li> </ul>	Predominately tourists and locals visiting the waterfront, also commercial employees working along the waterfront and office employees working in select buildings near the area	With the exception of the Alaskan Way Viaduct, the view includes a favorable mixture of built and natural environment elements (e.g., planters).	Current construction activities with temporary utility poles and temporary barriers somewhat detract from the order of the view.	Alaskan Way viaduct is distinctive and somewhat jarring in its scale and unique materials compared to surrounding buildings and structures.	Medium-low
South end of Victor Steinbrueck Park looking south	Yes	<ul style="list-style-type: none"> <li>• Foreground views of the Alaskan Way Viaduct, lighting associated with this structure, the back side of Waterfront Landings, and the Pike Place Market Garage deck</li> <li>• Midground views of Elliott Bay open water (Puget Sound falls under SEPA-protected view), existing Aquarium buildings, Great Wheel, low-rise waterfront and mid- to high-rise buildings east of the viaduct, stadiums, and Port of Seattle cranes</li> <li>• Background views of the Duwamish green belt, West Seattle, and the sky</li> </ul>	Park users including tourists visiting Pike Place Market, local residents, and employees of businesses near the market	The Alaskan Way Viaduct deck and structure bisects the view and detracts from the natural harmony of the view; however, open views of the water, sky, background greenery, and interesting built environment fabric provide some harmony.	The two different leveled viaduct decks, the signage associated with the viaduct and the temporary facilities (temporary utilities, water tanks, fencing) associated with waterfront construction detract from the order of the view.	The two decks of the viaduct cutting across this view with only minimal views of the street below detract from the legibility of this view.	Medium-low

Viewpoint Description	SEPA-Protected View Location	Visual Character	Affected Viewers	Visual Quality			Overall Level
				Natural Harmony	Cultural Order	Project Coherence	
South edge of Piers 62/63 looking east	No	<ul style="list-style-type: none"> <li>• Foreground views of the seawall and promenade currently under construction, Alaskan Way, and waterfront condominiums and other nearby low-rise buildings</li> <li>• Midground views of the Alaskan Way Viaduct, Aquarium buildings, and mid-rise buildings rising up behind the viaduct</li> <li>• Background views of the high-rise, building-dominated city skyline as well as the sky</li> </ul>	Predominately tourists and locals visiting the waterfront, possibly more cruise terminal passenger and employees at this location; residents of waterfront condos and employees at commercial, office, and hospitality businesses nearby	Foreground views with construction operation and staging in addition to the viaduct bisecting the city skyline view make a large portion of the view unharmonious	Construction operations including water treatment, temporary facilities, and staging all detract from the order of the view.	Temporary facilities including rerouting of surface streets detract from legibility in the foreground. The viaduct acts as an obstruction to the legibility of the city skyline view in the midground.	Low
Pike Street Hillclimb base looking west	No	<ul style="list-style-type: none"> <li>• Foreground views of lighting fixtures, brick paving, retaining walls/railings, and vegetation including atlas cedar, linden, and ginkgo trees with ivy groundcover</li> <li>• Midground views of the Alaskan Way Viaduct and street, surface parking lots, Aquarium buildings, and sidewalks</li> <li>• Background views of the sky, Elliott Bay open water, and Bainbridge Island</li> </ul>	Predominately tourists and locals visiting the waterfront, also commercial and office employees working along the waterfront or hillclimb areas and some residents living along the waterfront	While the natural vegetation creates an attractive "room" at the base of the hillclimb and peep-hole views of the water are available, the parking lot and viaduct detract from the natural harmony.	Construction staging along Alaskan Way as well as irregularly spaced surface parking spaces somewhat detract from the order of the view.	The viaduct acts as an obstruction to the legibility of the view, blocking views of the waterfront through its spans, and views of the street through its columns.	Medium-low

**Table 4**  
**Private Viewpoint Summary – Existing 2018 Conditions**

Viewpoint Description	SEPA-Protected View Location	Visual Character	Affected Viewers	Visual Quality			Overall Level
				Natural Harmony	Cultural Order	Project Coherence	
Private residences (Fix Madore and Waterfront Landings)	No	<ul style="list-style-type: none"> <li>Generally foreground views of built structures, buildings, and/or transportation elements</li> <li>Midground views of waterfront buildings and structures including the Seattle Aquarium, Elliott Bay, and West Seattle</li> <li>Background views of Puget Sound, Bainbridge Island, Olympic Mountains, and the sky</li> </ul>	Private residents and employees within businesses	With the exception of the Alaskan Way Viaduct, the view includes a favorable mixture of built and natural environment elements, including views of the water and vistas of the Olympic Mountains.	Current construction activities and staging somewhat detract from the order of the view.	Alaskan Way Viaduct is distinctive and somewhat jarring in its scale and unique materials compared to surrounding buildings and structures.	Medium

**Table 5**  
**Public Viewpoint Visual Quality – No Action Alternative**

Viewpoint Description	SEPA-Protected View Location	Visual Quality			Overall Level
		Natural Harmony	Cultural Order	Project Coherence	
Waterfront Park/ sidewalk west of Alaskan Way looking north	Yes	While the removal of the Alaskan Way Viaduct would benefit the view, removal of the existing, moderately mature natural vegetation currently in the foreground with a paved plaza would decrease some of the softer elements of the view that contribute to natural harmony.	Removal of temporary facilities would contribute greater order to the view.	The Overlook Walk would be a distinctive element but is anticipated to make wayfinding and travel through the space and uphill quite legible.	Medium
South end of Victor Steinbrueck Park looking south	Yes	Removal of the viaduct and rerouting of Alaskan Way with additional street trees would increase the natural harmony of the view in the foreground.	Removal of the viaduct and removal of construction staging and temporary facilities would increase the order of this view.	Removal of the viaduct would increase the viewer's understanding of this view, though the underpass of the Overlook Walk would slightly detract from this legibility by blocking a full view of the street below.	Medium

Viewpoint Description	SEPA-Protected View Location	Visual Quality			Overall Level
		Natural Harmony	Cultural Order	Project Coherence	
South edge of Piers 62/63 looking east	No	Completion of the seawall and promenade combined with removal of the viaduct and installation of new street trees would contribute to a harmonious urban view.	Finishing installation of the seawall and updated street grid would increase the order of the view.	The removal of the viaduct would benefit coherence of the city skyline view, although viewing the underside of the Overlook Walk would still slightly detract from coherence of this view.	Medium
Pike Street Hillclimb base looking west	No	Most vegetation would likely remain or be replaced following removal of the viaduct; these soft elements combined with removal of the viaduct opening up greater views of the sky and replacement of disjointed surface parking with the rerouted Alaskan Way would result in an increase in natural harmony.	Removal of staging areas and replacement of parking areas on Alaskan Way would increase the order in this view.	The removal of the viaduct and surface parking lots would benefit coherence, although the underside of the Overlook Walk would still slightly detract from coherence of this view at the street level by blocking midground building views somewhat.	Medium

**Table 6**  
**Private Viewpoint Visual Quality – No Action Alternative**

Viewpoint Description	SEPA-Protected View Location	Visual Quality			Overall Level
		Natural Harmony	Cultural Order	Project Coherence	
Private residences (Fix Madore and Waterfront Landings)	No	The removal of the Alaskan Way Viaduct would greatly benefit the view. The Overlook Walk, with its mix of built structure and natural vegetation, would contribute to harmony of the view.	Removal of construction activities, staging, and temporary facilities would contribute greater order to the view.	The Overlook Walk would be a distinctive element, but, combined with the rerouting of Alaskan Way surface streets, would maintain overall coherence and legibility of the view.	Medium-high

## *Construction-Related Impacts and Mitigation Measures*

The AWPOW EIS, through the preferred alternative, identified substantial temporary construction-related impacts, primarily related to construction of the Overlook Walk (SDOT 2016, Section 5.2.2). These impacts are incorporated by reference for Alternative 1.

For Alternative 2, the AWPOW EIS identified substantial temporary adverse impacts on aesthetics during construction within the waterfront landscape unit, primarily related to construction of the Overlook Walk, but the Aquarium Pavilion construction was also determined to contribute temporary impacts (SDOT 2016, Section 5.2.2). The action alternatives would have similar temporary adverse impacts on aesthetics. Visual quality would be temporarily degraded due to the following conditions:

- Construction equipment including a land-based crane, land-based equipment, and material staging and stockpiling areas around the site may obstruct some water and background landform views. The construction crane and other equipment could block SEPA-protected Puget Sound views from Victor Steinbrueck Park depending on its height and location.
- High-visibility (likely orange-colored) barriers and fencing for safety and sediment and erosion control would be installed and detract from the orderliness of the views.
- Soil, dust, and exhaust from equipment and activities could detract from the air and visual quality.
- Temporary lighting could brighten the area during nighttime construction activity (if needed).
- Traffic patterns for motorists, pedestrians, and cyclists would be disrupted, potentially leading to more congestion.

In general, construction of both action alternatives has some potential to affect visual resources; but in both cases, impacts are likely to be moderate and there would not be substantial differences in impacts between the two action alternatives. Action alternative construction-related impacts for each key viewpoint are provided in Tables 7 and 8, these impact ratings are based upon the change in overall visual quality level compared to the No Action Alternative for each viewpoint. The overall impact for each alternative is based on a combination of these ratings. For both action alternatives, a moderate impact on visual quality was determined during construction.

**Table 7  
Public View Construction Visual Quality Levels and Impacts for Action Alternatives**

Viewpoint Description	SEPA-Protected View Location	Visual Quality				Overall Level	SEPA-Protected View Impact	Construction Period Impact Rating
		Natural Harmony	Cultural Order	Project Coherence				
Waterfront Park/ sidewalk west of Alaskan Way looking north	Yes	Temporary loss of natural vegetation, and construction activities and staging in the foreground may detract from the city skyline view and affect harmony.	This viewpoint may have prominent views of construction activities that may contribute to cluttered, disorderly views.	Legibility and wayfinding during construction at this location may decrease.	Low for both alternatives	Impact: Views of downtown city skyline to the north affected from Waterfront Park's adjacent sidewalk	Moderate for both alternatives	
South end of Victor Steinbrueck Park looking south	Yes	Changes to this view may be shielded by Alaskan Way and Overlook Walk.	Disorderly effects of construction may be shielded by foreground and midground views.	Legibility at this viewpoint may be minimally disrupted as changes may occur in the background.	Medium for both alternatives	Impact: Portion of view of Puget Sound may be blocked by construction crane and other equipment depending on its height and location	Minor for both alternatives	
South edge of Piers 62/63 looking east	No	Construction activities may detract from harmonious aspects of open water and city skyline views.	This viewpoint may have prominent views of construction activities that may contribute to cluttered, disorderly views.	Legibility and wayfinding during construction at this location may decrease.	Low for both alternatives	No Impact: Not a SEPA-protected view location	Moderate for both alternatives	
Pike Street Hillclimb base looking west	No	Changes to the view may be shielded by foreground vegetation and the midground Overlook Walk.	Disorderly effects of construction may be shielded by foreground and midground views.	Legibility at this viewpoint may be minimally disrupted as changes may occur in the background.	Medium for both alternatives	No Impact: Not a SEPA-protected view location	Minor for both alternatives	

**Table 8  
Private View Construction Visual Quality Levels and Impacts for Action Alternatives**

Viewpoint Description	SEPA-Protected View Location	Visual Quality				Overall Level	Construction Period Impact
		Natural Harmony	Cultural Order	Project Coherence			
Private residences (Fix Madore and Waterfront Landings)	No	May be affected by crane use, construction activities, and staging	Prominent views of construction activities that may contribute to cluttered, disorderly views	Less applicable; affected viewers may be less sensitive to this from interior viewpoints	Low for both alternatives	Moderate for both alternatives	

Measures to avoid or minimize construction-related impacts for both action alternatives could include the following:

- Protecting visual resources through the development of a construction screening plan, which could include integrating temporary public artwork murals and select windows into construction areas to provide an attractive screen to construction activities and opportunities for interested parties to observe the progress of construction
- Limiting nighttime construction activities and thus lighting and considering light barriers or the direction of lighting away from residential buildings that could be disturbed by glare

### *Long-Term Impacts and Mitigation Measures*

Under the No Action Alternative, visitor levels to the study area could increase due to planned development (Alaskan Way Viaduct removal, Overlook Walk, Alaskan Way promenade), adding more viewers to the study area. The planned development would be moderately beneficial to the general public in the study area. Figures 7 through 11 present the No Action Alternative (Alternative 1) and action alternatives (Alternatives 2 and 3) from four key public viewpoints as well as private residential views. For Alternative 2, the AWPOW EIS identified substantial view benefits during operation but also moderate adverse impacts due to view blockages and changes to form, texture, and materials of the view within the waterfront landscape unit. The "Aquarium Pavilion" described in the AWPOW EIS was not identified as a primary contributor of impacts, which were identified as the Overlook Walk, kiosks, and new street trees, but the building envelope would contribute to potential impacts by blocking some public views of the city skyline from a few viewpoints (SDOT 2016, Section 5.3.2).

Alternative 3 provides a greater degree of aesthetic improvement compared to Alternative 2, through the following components:

- The building's rooftop design would allow for rooftop landscaping that, together with the Overlook Walk public plaza landscaping, has more vegetation contributing to natural harmony
- Building height would allow for enhanced public views from the Overlook Walk/rooftop, by elevating the viewpoint above Pier 59, allowing 180-degree views of the water
- A more level connection with the Overlook Walk and connections to Pike Place Market would be provided and increase legibility and wayfinding at this location
- With the Ocean Pavilion located farther south, the following benefits would be provided:
  - The creation of a public open space directly opposite the opening between Piers 62/63 and Pier 60, providing direct public views to the water from the open space
  - Fewer waterfront views would be blocked from the public space on the Overlook Walk or from the public stairs

Location of the public elevator to the south would provide more visible access for visitors on the Alaskan Way sidewalk, contributing to project coherence



**Figure 7**  
**Viewpoint 1: Waterfront Park/Sidewalk West of Alaskan Way Looking North**



Existing View



Alternative 2



Alternative 1



Alternative 3

**Figure 8**  
**Viewpoint 2: South End of Victor Steinbrueck Park Looking South**



Existing View



Alternative 2



Alternative 1

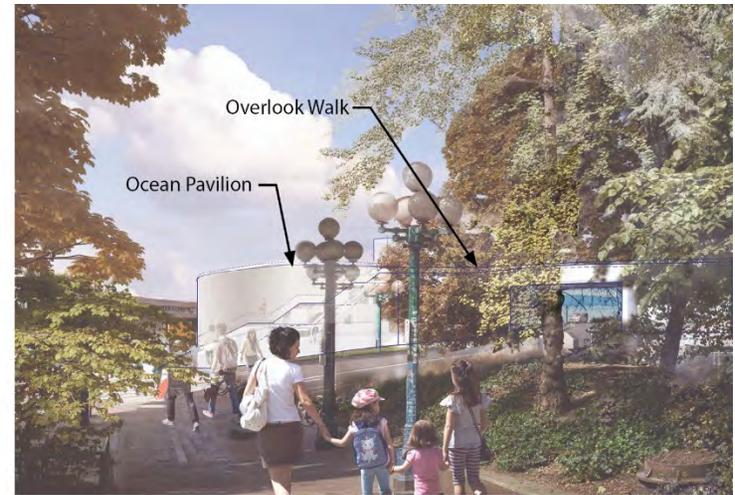


Alternative 3

**Figure 9**  
**Viewpoint 3: South Edge of Piers 62/63 Looking East**



Existing View



Alternative 2



Alternative 1



Alternative 3

**Figure 10**  
**Viewpoint 4: Pike Street Hillclimb Base Looking West**



**Fix Madore Building Looking West**



**Waterfront Landings Viaggio Building Looking South**



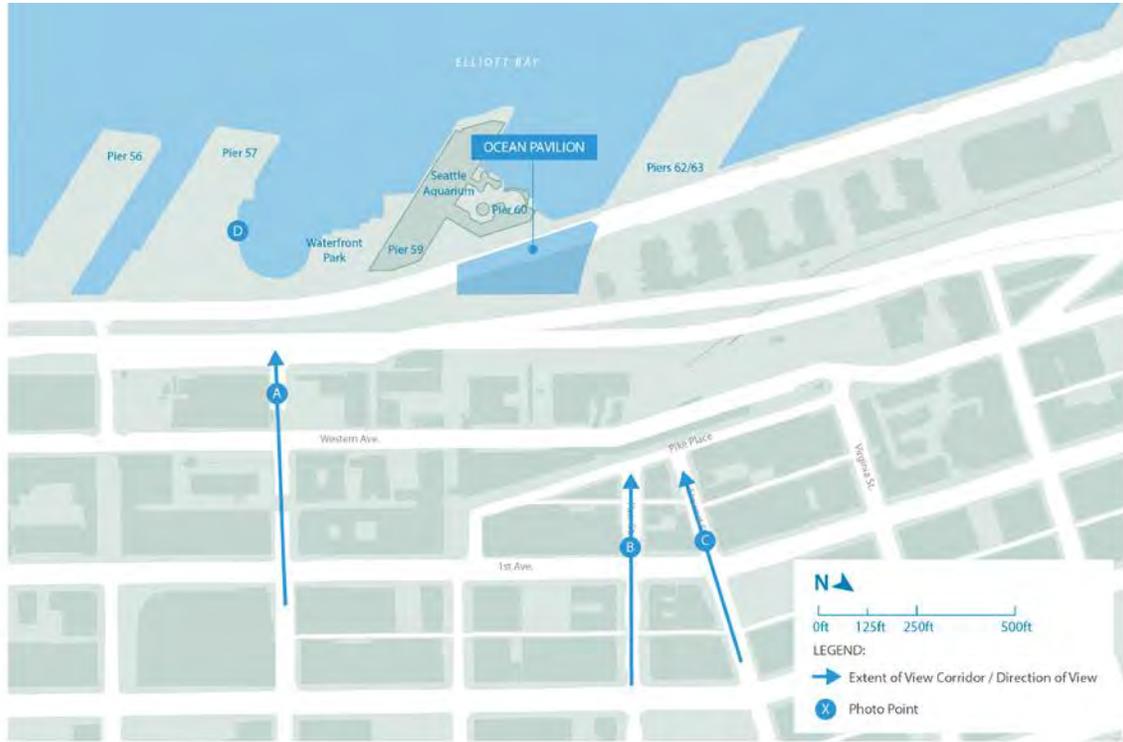
**Figure 11  
Private Building Views**

Overall, the action alternatives would have minor adverse impacts on scenic views of the open water and background landforms from street-level views, due to existing waterfront buildings currently obstructing these views and the proposed building heights being low enough to avoid further view obstruction.

Views from Fix Madore would likely have moderate impacts on waterfront views, with the height of the proposed buildings reaching halfway past the second-highest floor; however, views from most of the west-facing windows appear to be obstructed by existing vegetation and the existing Alaskan Way Viaduct. Views from Waterfront Landings would likely have moderate impacts on city skyline views, though only limited waterfront views to the south may be obstructed.

The action alternatives would affect views of the open sky present in the No Action Alternative view at the base of the Pike Street Hillclimb, but only to a minor degree (approximately 6% of the view for Alternative 2 and 24% of the view for Alternative 3), the existing view has very limited views of the sky and water due to the existing Alaskan Way Viaduct. Background views of the city skyline and open sky present in the No Action Alternative view from Waterfront Park would be obstructed depending on a viewer's location in the park (approximately 18% of the view for Alternative 2 and 37% of the view for Alternative 3); but the proposed development would fit into the surrounding urban view, and a plaza rather than a street foreground view from this location would provide a visual benefit. The building would not obstruct views for visitors looking toward the city skyline from interior locations in the park (30 feet west of the sidewalk, note that the Waterfront Park assessment includes the adjacent sidewalk); approximately 49% of the pedestrian-accessible park (total area including the sidewalk portion of park but not the water portion) has views of the building. Figure 12 shows SEPA-protected viewpoints currently obstructed by buildings or other infrastructure and would not be affected by the proposed action.

Action alternative long-term impacts for each key viewpoint are provided in Tables 9 and 10.



**Figure 12**  
**Obstructed View Corridor and SEPA-Protected Views**

**Table 9  
Public Views Operational Visual Quality Levels and Impacts for Action Alternatives**

Viewpoint Description	SEPA-Protected View Location	Alternative	Visual Quality			Overall Level	Operational Impact Rating	SEPA-Protected View Impact
			Natural Harmony	Cultural Order	Project Coherence			
Waterfront Park/sidewalk west of Alaskan Way looking north	Yes	2	There are benefits from a plaza that will include planter and street tree vegetation rather than a surface street view. Alternative 2 would have slightly higher levels of natural harmony from this viewpoint due to the buildings being located farther from the viewpoint.	There would be minimal impact from this view, because the building fits neatly into the urban context of the scene. The refined Overlook Walk that “meets” the height of the building with a narrower structure provides a slight aesthetic improvement from the previous design at this location because it would minimally obstruct city skyline views to the north from Waterfront Park’s adjacent sidewalk.	There would be obstruction of Alaskan Way beyond limit legibility and of wayfinding somewhat, though this also occurs in the No Action Alternative. Coherence of the path towards the Overlook Walk may be slightly higher for Alternative 2, but legibility/wayfinding towards Alaskan Way may be lower compared to Alternative 3. Design refinements of the Overlook Walk would have minimal effects from this view.	Medium	No Adverse Impact	Impact: Views of downtown city skyline to the north are affected from Waterfront Park’s adjacent sidewalk
		3	There are benefits from a plaza that will include planter and street tree vegetation rather than a surface street view. Alternative 3 would have slightly lower levels of natural harmony from this viewpoint due to the buildings being located closer to the viewpoint.	There would be obstruction of Alaskan Way beyond limit legibility and of wayfinding somewhat, though with the narrower Overlook Walk this will be improved upon compared to Alternative 2. Coherence of the path towards the Overlook Walk may be slightly lower for Alternative 3, but legibility/wayfinding towards Alaskan Way may be better for Alternative 3. Design refinements of the Overlook Walk would have minimal effects from this view.	Medium	Minor	Impact: Views of downtown city skyline to the north are affected from Waterfront Park’s adjacent sidewalk	

Viewpoint Description	SEPA-Protected View Location	Alternative	Visual Quality			Overall Level	Operational Impact Rating	SEPA-Protected View Impact
			Natural Harmony	Cultural Order	Project Coherence			
South end of Victor Steinbrueck Park looking south	Yes	2	Slight obstruction of the existing Aquarium building along the pier detracts slightly from the natural harmony. This obstruction is more pronounced for Alternative 2 because the building is more prominent in this view. Additionally, while the current height of this alternative's building and Overlook Walk is 40 feet, current code would allow for up to 50 feet, which would further obstruct this view.	Minimal impact from this view due to changes occurring within the background of this viewpoint	The gap in the line of street trees along Alaskan Way at the detracts slightly from the coherence of the view. Narrowing the Overlook Walk through design refinement in both action alternatives would provide slight benefits, because the structure would obstruct less of Elliott Way and the Aquarium Plaza.	Medium	Minor	No Impact: Views of Puget Sound would not be blocked by the building
		3	Slight obstruction of the existing Aquarium building along the pier detracts slightly from the natural harmony. This obstruction is more pronounced for Alternative 2 than Alternative 3, because Alternative 3 is more tucked behind the Overlook Walk.			Medium-high		

Viewpoint Description	SEPA-Protected View Location	Alternative	Visual Quality			Overall Level	Operational Impact Rating	SEPA-Protected View Impact
			Natural Harmony	Cultural Order	Project Coherence			
South edge of Piers 62/63 looking east	No	2	The larger size of the building compared to surrounding low-rise buildings in the foreground detracts slightly from harmony. This would be more pronounced in Alternative 2 due to the building being closer to the viewpoint and taking up much more of the foreground plaza space compared to Alternative 3.	There would be minimal impact from this view. The building fits neatly into the urban context of the scene. The refined Overlook Walk that “meets” the height of the building with a narrower structure provides a slight aesthetic improvement from the previous design. While	There would be obstruction of Alaskan Way beyond limit legibility and of wayfinding somewhat, though this also occurs in the No Action Alternative. The building in Alternative 2 is slightly more exposed in front of the Overlook Walk stairs, detracting somewhat from coherence in terms of wayfinding both toward the street and to the Overlook Walk. While the narrowing of the Overlook Walk through design refinements may improve views to Alaskan Way, the building still obstructs most of these views.	Medium	Minor	No Impact: Not a SEPA-protected view location
		3	The larger size of the building compared to surrounding low-rise buildings in the foreground detracts slightly from harmony. This would be less pronounced for Alternative 3 due to the building being farther from the viewpoint and taking up much less of the foreground plaza space compared to Alternative 2.	low-rise background buildings would be slightly more obstructed, the overall city skyline view is minimally affected.	There would be obstruction of the street beyond limit legibility and of wayfinding somewhat, though with the narrower Overlook Walk this will be improved upon compared to Alternative 2. Alternative 3, which has the building tucked behind both Overlook Walk stairs, has moderately better coherence in terms of wayfinding, both toward the street and to the Overlook Walk.	Medium-high	Minor	No Impact: Not a SEPA-protected view location

Viewpoint Description	SEPA-Protected View Location	Alternative	Visual Quality			Overall Level	Operational Impact Rating	SEPA-Protected View Impact
			Natural Harmony	Cultural Order	Project Coherence			
Pike Street Hillclimb base looking west	No	2	The natural vegetation foreground, street trees, and balanced built environment midground contribute to harmony. The sky would be slightly less obstructed in this view because the building would be located farther north.	There would be minimal impact from this view due to changes occurring within the background of this viewpoint. Provided foreground vegetation is preserved, the design refinements of the Overlook Walk would be minimally visible from the location.	There would be minimal impact from this view due to changes occurring within the background of this viewpoint. Design refinements of the Overlook Walk would have minimal effects from this view.	Medium-high	Minor	No Impact: Not a SEPA-protected view location
		3	The natural vegetation foreground, street trees, and balanced built environment midground contribute to harmony. The open sky would be slightly less visible for Alternative 3 because the building would be located farther south.			Medium	Minor	No Impact: Not a SEPA-protected view location

**Table 10**  
**Private Views Operational Visual Quality Levels and Impacts for Action Alternatives**

Viewpoint Description	SEPA-Protected View Location	Alternative	Visual Quality				Operational Impact Rating
			Natural Harmony	Cultural Order	Project Coherence	Overall Level	
Private residences (Fix Madore and Waterfront Landings)	No	2	There would be a slight obstruction of waterfront views (both locations) and city skyline views (Waterfront Landings) due to the building and the future Overlook Walk. These obstructions would detract from the natural harmony for both alternatives, but would be more pronounced in Alternative 2 for views from Waterfront Landings. The refinements of the Overlook Walk would provide slight improvements compared to the earlier design through a narrower structure, and the lower building and Overlook Walk height would obstruct less water views from Fix Madore compared to Alternative 3.	There would be minimal impact from this view. The building fits neatly into the urban context of the scene.	The building would slightly detract from coherence by obstructing views of the shoreline's edge	Medium	Minor
		3	There would be a slight obstruction of waterfront views (both locations) and city skyline views (Waterfront Landings) due to the building and the future Overlook Walk would detract from the natural harmony for both alternatives, but would be less pronounced for Alternative 3 for views from Waterfront Landings. The refinements of the Overlook Walk would provide slight improvements compared to the earlier design through a narrower structure, but the walk and the building that are higher in this alternative would obstruct more water views from Fix Madore.			Medium	Minor

### ***Mitigation Measures***

No significant adverse impacts on aesthetic and scenic resources are anticipated; therefore, no mitigation measures are proposed. However, as the preferred design is selected and undergoes review through the Design Commission process, design refinements to minimize potential impacts will be incorporated. These refinements may relate to the building envelope's material selection, landscaping, or changes to more prominent aspects of the building. The design refinement process will ensure that the Ocean Pavilion is integrated with the overall Waterfront Seattle program.

### ***Cumulative Effects and Mitigation Measures***

There are multiple projects that could be near or built at the same time as the Ocean Pavilion including the AWPOW projects, Piers 62/63 Rebuild, Pike Pine Renaissance: Act One, the Waterfront Park Rebuild, Seattle Multimodal Terminal at Colman Dock, Vine Basin Combined Sewer Overflow (CSO) Control Project, and multiple commercial and residential development projects along the Seattle central waterfront and downtown area. These projects would contribute additional temporary construction-related cumulative effects on aesthetics and scenic resources. The City's urban design goals and policies for the waterfront and downtown areas would be enforced through Design Commission review and the AWPOW projects, Piers 62/63 Rebuild, Waterfront Park Rebuild, and CSO reduction projects in particular would contribute to enhancement of visual resources when completed. No long-term cumulative effects are anticipated from the proposed action and no mitigation measures are proposed.

### **References**

City of Seattle, 2017. *Seattle 2035: Comprehensive Plan*. Accessed June 2018. Available at:

<http://www.seattle.gov/opcd/ongoing-initiatives/comprehensive-plan#projectdocuments>.

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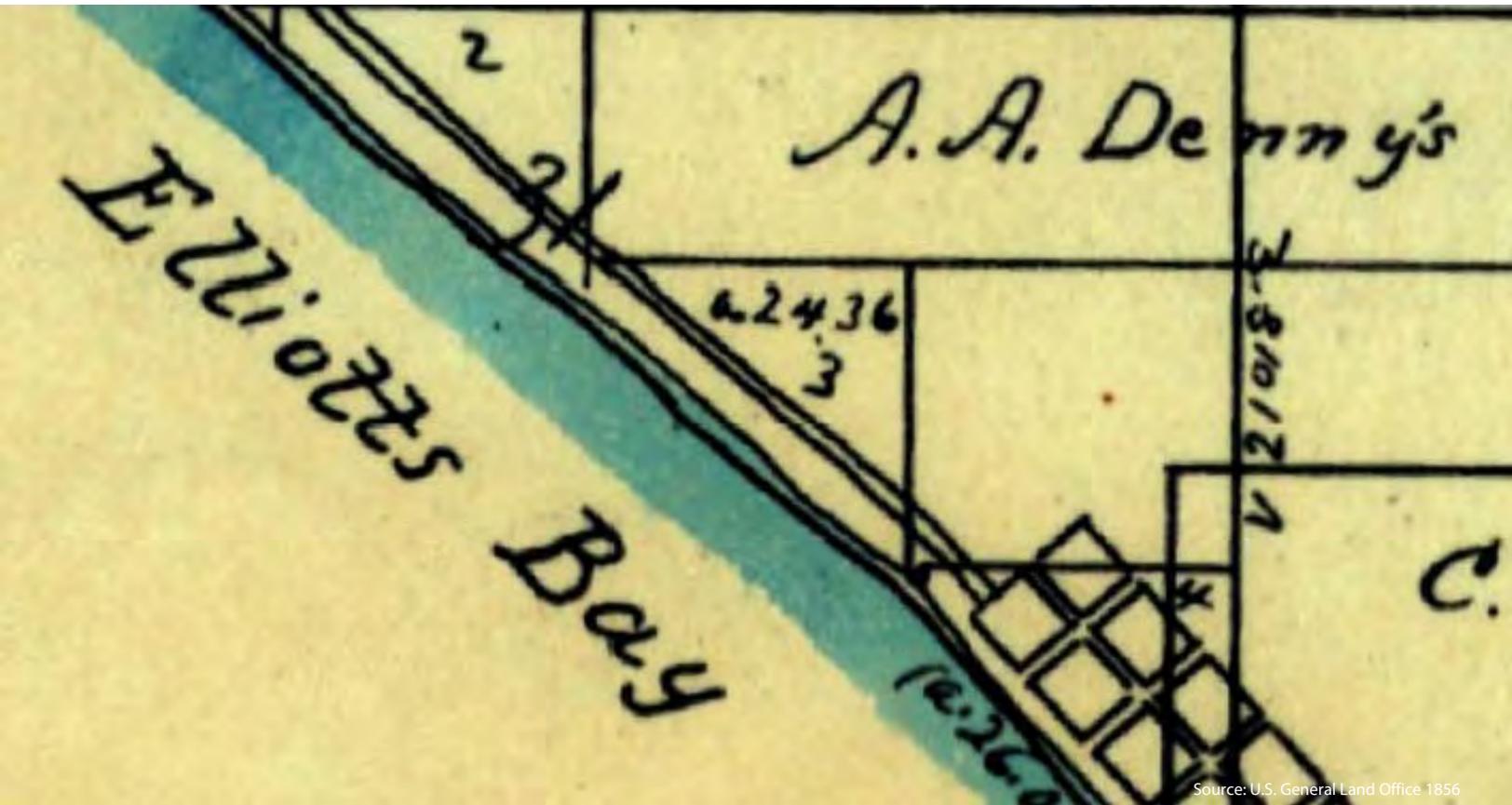
SDOT (Seattle Department of Transportation), 2016. *Final Environmental Impact Statement: Waterfront Seattle Alaskan Way, Promenade, and Overlook Walk*. October.

U.S. Department of Transportation, 2015. *Guidelines for the Visual Impact Assessment of Highway Projects*. January.

## Appendix E

# Cultural Resources Technical Memorandum

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Source: U.S. General Land Office 1856

August 2018  
Seattle Aquarium Ocean Pavilion

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## Cultural Resources Technical Memorandum

**Prepared for**  
City of Seattle Department of Parks and Recreation  
Seattle Aquarium Society

**Prepared by**  
Anchor QEA, LLC

## **Executive Summary**

The purpose of this technical memorandum is to describe the potential impacts on cultural resources, which includes historical and archaeological resources, associated with the proposed Seattle Aquarium Ocean Pavilion (Ocean Pavilion). This memorandum evaluates the potential effects of project construction and operation on these resources for two action alternatives as well as a No Action Alternative. The City of Seattle Department of Parks and Recreation, in coordination with the Seattle Aquarium Society (SEAS), is preparing a State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) to evaluate the proposal, which includes two different building options located near the existing Aquarium at Piers 59 and 60 along the Seattle waterfront and an off-site Animal Care Center that may be located on Harbor Island at the former Fisher Flour Mill or similar facility.

The construction of an "Aquarium Pavilion" was reviewed by the City of Seattle (City) as part of the Alaskan Way, Promenade, and Overlook Walk (AWPOW) SEPA EIS (SDOT 2016). Information and analysis from the AWPOW EIS is incorporated by reference into the analysis and findings of this memorandum, in accordance with Seattle Municipal Code (SMC) 25.05.635 and Washington Administrative Code (WAC) 197-11-635.

The Ocean Pavilion is being proposed as a separate and independent project from the AWPOW and other ongoing projects along the central waterfront. However, the proposal is intended to anchor these projects and reconnect the city with Puget Sound and its central waterfront. This memorandum summarizes the relevant findings from the AWPOW EIS, describes changes to the Ocean Pavilion proposal that have occurred since that time, and evaluates whether the changes would result in any potential additional construction and long-term impacts on historical and archaeological resources.

The findings of this Ocean Pavilion EIS cultural resources analysis indicate that minor construction-related impacts on historic buildings are anticipated, as well as potential moderate impacts on unrecorded archaeological sites. Alternative 2 has slightly more potential to affect archaeological materials than Alternative 3, because the horizontal footprint of the basement is larger (26,100 square feet [0.6 acre] for Alternative 2 versus 17,400 square feet [0.4 acre] for Alternative 3). Mitigation measures during construction would include maintaining access to businesses, communicating with residents, and applying measures developed for other environmental topics, such as controlling noise and dust. Depending on construction methods, mitigation measures could also include development of an Archaeological Monitoring Plan and Inadvertent Discovery Plan. No long-term impacts are anticipated from the built condition of the Ocean Pavilion. Table 1 provides a summary of impacts.

**Table 1**  
**Cultural Resources Impacts Summary**

Alternative	During Construction	Long Term
1 (No Action)	<p><b>No Adverse Impact</b></p> <p>No construction, therefore no construction impacts</p>	<p><b>No Adverse Impact</b></p> <p>No ongoing effects beyond what was previously analyzed in the AWPOW EIS (SDOT 2016)</p>
2	<p><b>Minor to Moderate Impacts</b></p> <ul style="list-style-type: none"> <li>• Historic buildings: Potential impacts associated with construction noise, dust, and/or access limitations</li> <li>• Archaeological sites: Potential moderate impacts associated with excavation in sediment with archaeological potential between 22 to 40 feet below ground surface; slightly more potential for disturbance than Alternative 3 due to the increased horizontal footprint of the basement (26,100 square feet [0.6 acre])</li> </ul>	<p><b>No Adverse Impact</b></p> <p>No ongoing effects</p>
3	<p><b>Minor to Moderate Impacts</b></p> <ul style="list-style-type: none"> <li>• Historic buildings: Potential impacts associated with construction noise, dust, and/or access limitations</li> <li>• Archaeological sites: Potential moderate impacts associated with excavation in sediment with archaeological potential between 22 to 40 feet below ground surface; slightly less potential for disturbance than Alternative 2 due to the reduced horizontal footprint of the basement (17,400 square feet [0.4 acre])</li> </ul>	<p><b>No Adverse Impact</b></p> <p>No ongoing effects</p>

## Introduction and Project Description

The Ocean Pavilion would be located in Seattle, King County, Washington (Figure 1). The building would be constructed east of the existing Aquarium, and east of the future pedestrian promenade along the waterfront constructed as part of the AWPOW projects. A potential off-site Animal Care Center may be located on Harbor Island at the former Fisher Flour Mill or a similar facility (Figure 1). Three alternatives have been developed for the Ocean Pavilion: a No Action Alternative and two action alternatives. A full description of these alternatives is included in the Draft Ocean Pavilion EIS, with summary descriptions provided within this technical memorandum.



**Figure 1**  
**Vicinity Map**

## ***Alternative 1: No Action Alternative***

Under Alternative 1 (No Action Alternative), the Ocean Pavilion would not be built. However, conditions in the area would be different from those that exist at the time this EIS is published (2018). The analysis for the No Action Alternative is based on the expected conditions in 2030, which is the year used for the assessment of future conditions. The following major changes are assumed to be in place under the No Action Alternative:

- The AWPOW projects identified in the preferred alternative within the AWPOW EIS would be completed. The AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects' design process.
- The Alaskan Way Viaduct Replacement Project (AWVRP) would be completed, with the viaduct eliminated and the State Route 99 tunnel in operation.
- The Elliott Bay Seawall Project (EBSP) would be completed.
- Ongoing public and private development projects that are currently being permitted through the Seattle Department of Construction and Inspections would be completed, with an additional projected baseline growth of 1% per year.

A description of the AWPOW's selected preferred alternative is included in Section 2.3 of the AWPOW EIS (SDOT 2016). The main difference between the two is that the No Action Alternative for Ocean Pavilion does not include construction of the "Aquarium Pavilion," which was one option described as part of the AWPOW's preferred alternative. Descriptions of the AWVRP and EBSP are described in Section 2.2 of the AWPOW EIS. Figure 2 shows the No Action Alternative, which serves as the baseline against which the potential impacts of the action alternatives are evaluated.

### ***Office of the Waterfront and Civic Projects' Potential Design Refinements***

The AWPOW projects would continue to be refined through the Office of the Waterfront and Civic Projects' design process. As of the publication of this EIS, the conceptual design of the Overlook Walk lid (or bridge) connecting the waterfront to Pike Place Market over Elliott Way would be narrower (90 feet versus 190 feet) and higher (50 feet versus 40 feet) than the design in the AWPOW EIS. In addition, Building B would be replaced by a smaller one-story building with a covered outdoor café and seating area on its roof. Public stairs and elevators would maintain connections from the Overlook Walk to the waterfront. These refined conditions were used in assessing the range of impacts of the action alternatives as compared to No Action Alternative and potential design refinements.

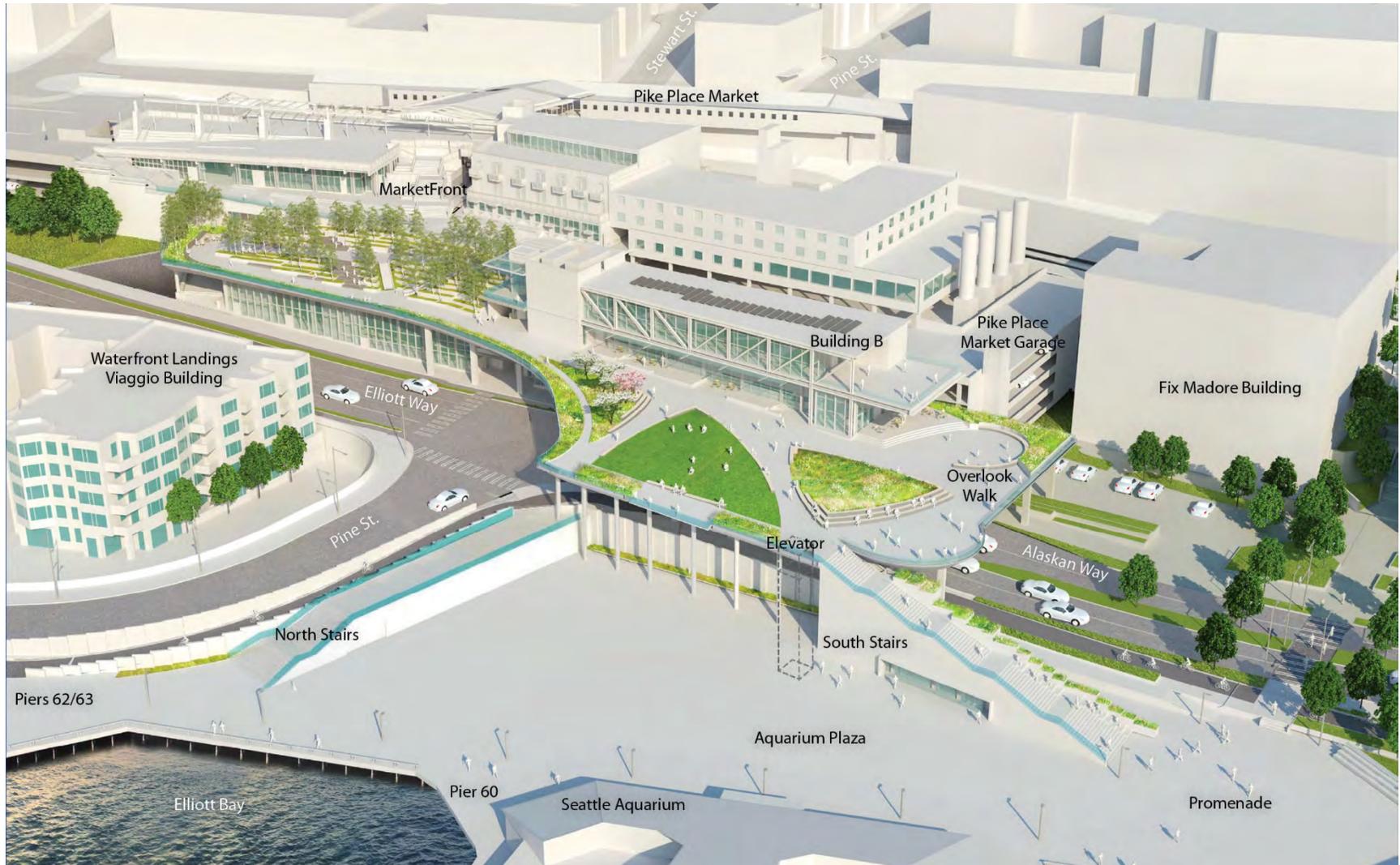
## ***Alternative 2***

Alternative 2 includes the Ocean Pavilion concept evaluated as one option for the preferred alternative under the AWPOW EIS (referred to as the "Aquarium Pavilion" in the AWPOW EIS). Alternative 2 includes an approximately 48,000-square-foot building featuring an interior elevator and connections to a fully accessible route between the waterfront and Pike Place Market. The orientation of the proposed building would locate it farther north and closer to Pine Street, compared to Alternative 3 which would be located farther south. The building would be approximately 40 feet tall with a rooftop waterfront viewing space accessible

from the Overlook Walk. An off-site Animal Care Center would be included under Alternative 2, as described herein. Figure 3 shows Alternative 2.

### *Alternative 3*

Alternative 3 includes building the Ocean Pavilion east of the existing Aquarium on Alaskan Way and the future Waterfront Promenade. The Ocean Pavilion would be located farther south than Alternative 2, resulting in a shorter distance from the Ocean Pavilion entrance to the existing Seattle Aquarium entrance and improved accessibility for visitors, volunteers, staff, and Aquarium programs. The proposed building would include an approximately 48,000-square-foot public aquarium featuring an exterior elevator and connections to a fully accessible route between the waterfront and Pike Place Market. The building would be approximately 50 feet tall with unobstructed public views of Elliott Bay over the existing Seattle Aquarium on Pier 59 and would be accessible from the future Overlook Walk. This alternative also includes an off-site Animal Care Center, as described herein. Figure 4 shows Alternative 3.



**Figure 2**  
**Alternative 1 (No Action)**

Source: LMN Architects



**Figure 3**  
**Alternative 2**

Source: LMN Architects



**Figure 4**  
**Alternative 3**

Source: LMN Architects

### ***Off-Site Animal Care Center for Alternatives 2 and 3***

An off-site Animal Care Center is proposed to address both short- and long-term animal care, veterinary, and rehabilitation needs and to meet the Association of Zoos and Aquariums' standards. The most immediate need is to provide necessary animal care to support the opening of the Ocean Pavilion and the turtle rehabilitation program. The Animal Care Center would also be a long-term care facility that supports SEAS' exhibit animal population, animal rehabilitation, and research efforts.

The Animal Care Center would be designed to meet peak animal care demand for the Aquarium exhibits and programs. This would include approximately 15,000 square feet of interior space, plus an additional 5,000 to 7,000 square feet of area surrounding the facility for outdoor animal holding, water storage, and parking. The center is intended to meet the care needs of both warm- and cold-water fish, birds and mammals, and rehabilitating animals. The center would also provide long-term care, including life support systems, with flexibility in the design to accommodate future needs.

The Aquarium plans to have the Animal Care Center constructed and operational 2 to 3 years prior to the opening of the Ocean Pavilion. This would allow for coral propagation, animal quarantine, and acclimation of the animals for the exhibits. The Aquarium has identified a potential site at the former Fisher Flour Mill property on Harbor Island, which is owned by King County. While the Fisher Flour Mill site is a potential location for the center, a similar location could be pursued. It is not anticipated that the impacts identified in this analysis would differ at a similar location.

### ***Construction Methods for Alternatives 2 and 3***

Construction methods for the action alternatives are described in the following subsection. It is anticipated that construction methods would be similar for the action alternatives. During construction, access to existing utilities would be maintained for surrounding property uses.

#### ***Construction Activities***

It is anticipated that construction at the Ocean Pavilion would require the following activities:

- Open excavation for the basement of the Ocean Pavilion, which would reach about 20 feet below ground surface (bgs), with 48-inch-diameter piles extending at varying depths
  - It should be noted that for Alternative 2, the AWPOW EIS shows 60 to 80 feet of excavation proposed in this area (SDOT 2016: Figure 10-2, page 245). It is expected that this depth is specific to the future Overlook Walk and other improvements and depths of that magnitude would not be required to construct the Ocean Pavilion.
- Dewatering of excavation areas below the water table or implementing soil freezing treatments to provide a dry work area as necessary
- Protecting, relocating, and/or connecting utilities
- Using best management practices to protect water quality and reduce erosion (may include installation of silt fencing, covering of stockpiled soil, and collection and treatment of construction stormwater runoff)
- Drilling shafts for piers to support the building, including exterior elevators or stairwells as necessary

- Removing existing knock-outs in the adjacent seawall under Pier 60 to connect the overwater intake pipe, seawater discharge, and utilities and infrastructure between the Ocean Pavilion and existing Seattle Aquarium buildings
- Erecting structural components and installing mechanical and other building features, using a crane tower for hoisting
- Potentially using one barge for 3 to 8 weeks, located between Piers 62/63 and Pier 60 for delivery of acrylic windows for the exhibits

Construction at the Animal Care Center would be limited to the building interior. No substantial modifications or new construction would be required to the exterior or surrounding areas.

### ***Construction Staging***

It is anticipated that areas within or near the proposed action (e.g., Aquarium Plaza) would be used for staging construction and storing materials, equipment, and temporary construction trailers.

### ***Construction Timing***

Construction of the Ocean Pavilion is expected to take up to approximately 4 months for early foundation work and 24 months for general construction. Preparation of the off-site Animal Care Center is expected to take approximately 9 months and would occur in advance of construction of the Ocean Pavilion.

### ***Worker Parking, Access, and Haul Routes***

The Ocean Pavilion contractor is expected to establish a worksite office, which could be located in existing office space near the Seattle Aquarium or in a mobile facility in the established laydown area or nearby. A limited number of construction workers may be able to park at the worksite office or on the work site, others could use off-street parking garages near the Aquarium, and some may use transit and walk to the work site. The Animal Care Center contractor is anticipated to establish a construction office in existing space within the building that would house the Animal Care Center. Very little parking demand is expected to be generated during build out of the Animal Care Center.

Construction activities would generate traffic for equipment and removing debris and soil. The contractor would determine the best construction methods, as permitted by the City and in conformance with the project construction plans.

## **Regulatory Context**

At this time, there are no applicable federal or regional laws, plans, or policies relevant to the proposed Ocean Pavilion. The state and local regulatory policies related to cultural resources are described here.

### ***State Laws, Plans, and Policies***

The SEPA process considers short- and long-term direct and indirect impacts as well as cumulative impacts on historic and cultural preservation (WAC 197-11-060 and WAC 197-11-444).

RCW 27.53 (Archaeological Sites and Records) prohibits unpermitted excavation of archaeological sites. RCW 27.44 (Indian Graves and Records) and RCW 68.60.050 (Protection of Historic Graves) guides actions following a discovery of human remains.

Executive Order 05-05, which requires a cultural resources review of state capital projects, is not applicable because the Ocean Pavilion is not a state capital project.

### *Local Plans and Policies*

Under SMC 25.12 (Historic Landmark Preservation Ordinance), sites or improvements older than 25 years and having significant character, interest, or value to the history or culture of Seattle may become landmarks. A Certificate of Approval is required before alterations or significant changes can be made to a landmark.

Chapter 25.05 SMC (Environmental Policies and Procedures) authorizes the Seattle Department of Construction and Land Use (now the Seattle Department of Construction and Inspections) through Director's Rule 2-98 to grant, deny, or condition construction or use permit applications. This rule clarifies SEPA historic preservation requirements with respect to a project's potential for impacts on significant archaeological sites and requirements for archaeological assessments.

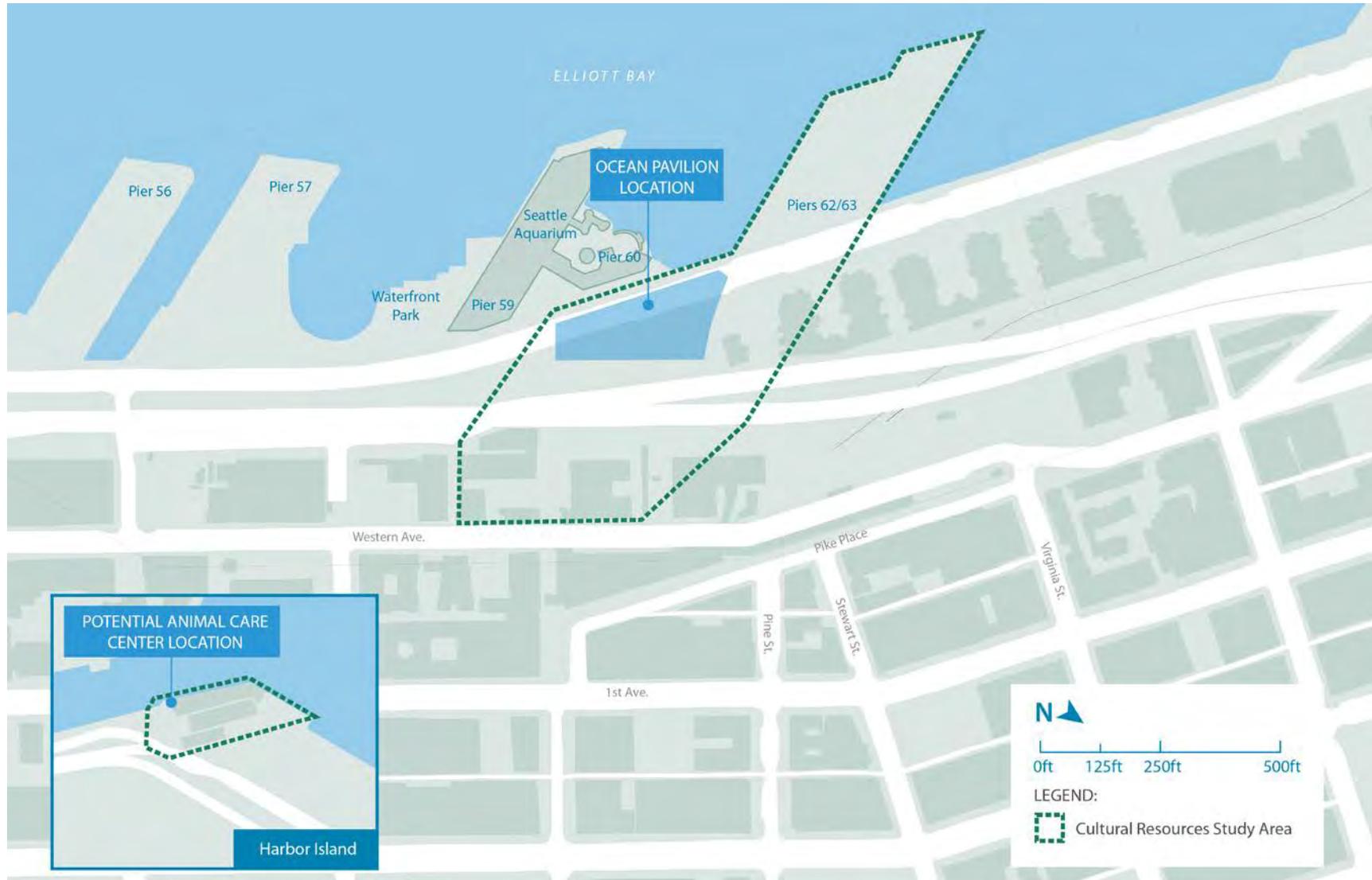
The City's Shoreline Master Program requires that development avoid disruption to historic and cultural resources, and requires procedures in the event of an inadvertent discovery of archaeological resources during construction (SMC 23.60A.154 - Standards for Archaeological and Historic Resources).

The Pike Place Market Historical Commission Revised Guidelines would apply if any impacts are identified within the Pike Place Market Historic District.

## **Methodology**

### *Study Area*

The study area has been defined using SEPA guidelines for cultural resources. It includes the area where project work would occur and a larger area to include indirect potential effects on cultural resources (Figure 5). Cultural resources include archaeological sites and objects as well as historic buildings and traditional tribal properties that have been determined eligible for national, state, or local preservation registers. Within the study area, the geographical scope of analysis differs for the various types of cultural resources. The study area includes the geographic scope of potential construction effects from noise, dust, vibration, and changes in access or traffic patterns during construction and operation of the Ocean Pavilion and Animal Care Center. Generally, it includes all parcels in or adjacent to the construction area. It also accommodates the City Historic Preservation Officer's adjacency review of potential impacts on City of Seattle Landmarks.



**Figure 5**  
**Cultural Resources Study Area**

## ***Environmental and Cultural Context***

The history and geomorphology of the Seattle waterfront has been extensively reviewed for the recent AWVRP (Miss and Hodges 2007; Miss et al. 2007) and EBSP (Hudson et al. 2013). The AWPOW EIS also reviewed cultural resources information in the study area (SDOT 2016: Sections 9 and 10). A summary is presented here, to support the assessment of archaeological potential and potential impacts on cultural resources.

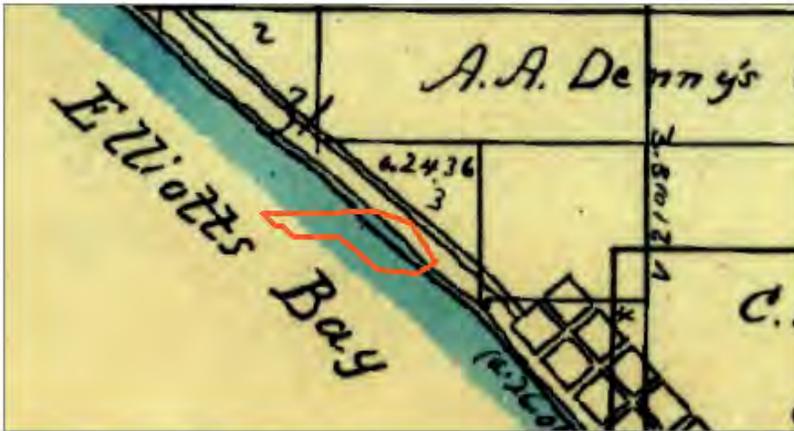
### ***Geologic Context***

The study area is in the Puget Trough physiographic province, a valley system that extends from Puget Sound south through the Willamette Valley and that separates the Olympic Mountains from the Western Cascades (Franklin and Dyrness 1973). During the last glacial advance, the Vashon Stade of the Late Wisconsin glaciation, glaciers extended as far as Centralia, 85 miles south of Seattle. Glaciers began to recede about 15,000 years ago, leaving behind a rapidly changing landscape of proglacial lakes, meltwater streams, and other alluvial features. This process created the Vashon till, which is the thick layer of Pleistocene glacial outwash underlying Holocene sediments in the project vicinity. As the glaciers retreated, land formerly depressed by the weight of the ice began to rebound, a process of uplift that lasted until approximately 9,000 years ago (Dragovich et al. 1994). By the time sea levels stabilized in the mid-Holocene, the downtown waterfront was characterized by steep topography. The bluffs that now host the Belltown neighborhood would have dropped to a narrow beach. The Ocean Pavilion location area itself would have been in intertidal and subtidal waters (Figure 6). Previous archaeological and geotechnical coring has revealed buried beach deposits between approximately 28 and 40 feet bgs, between Pleistocene till below and historical/modern fill above (Hudson et al. 2013: Figure 5-34).

The Harbor Island area near the potential site of the proposed Animal Care Center was deeply subtidal in the early Holocene. It was part of an embayment that extended south as far as present-day Auburn. The Duwamish River delta began to aggrade about 5,700 years ago after a large eruption of Mount Rainier. The eruption created the Osceola mudflow, which introduced massive amounts of sediment into the Duwamish drainage and caused the river mouth to move northward as the river valley filled with sediment (Dragovich et al. 1994). The Duwamish River delta was near its historical location by 1,500 to 2,200 years ago.

### ***Cultural Context***

The study area is in the traditional territory of the Duwamish, a Southern Coast Salish group speaking the Southern Lushootseed language who lived in villages from Lake Washington to the Black River (Suttles and Lane 1990). Southern Coast Salish villages were occupied part of the year, largely in winter, and residents made seasonal journeys to camps near resource gathering areas. Coastal villages relied on fish (Suttles and Lane 1990), which they caught with various weirs and traps, as well as shellfish and sea mammals (Ruby and Brown 1986). These food sources were supplemented by various berries, roots, and bulbs (Suttles and Lane 1990; Ruby and Brown 1986). A Duwamish place in the project vicinity was mapped in the early twentieth century by geographer T.T. Waterman; the home of Princess Angeline, Chief Seattle's daughter, was said to be at the foot of Pike Street near what is now the northbound lanes of the Alaskan Way Viaduct (Hilbert et al. 2001).



1856 General Land Office Map



1875 U.S. Coast and Geodetic Survey T-Sheet

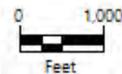


1918 U.S. Coast and Geodetic Survey Chart



1949 USGS 7.5' Quad, Seattle South

 Cultural Resources Study Area



**Figure 6**  
**Historical Maps**

Captain George Vancouver's 1792 exploration of Puget Sound marked the first Euroamerican intrusion in the region (Kirk and Alexander 1990). However, Euroamerican settlement in the region was not established until 1832; the earliest instance was at Fort Nisqually at the southern end of Puget Sound. The Wilkes Expedition of 1841 used the fort as a base for explorations in southern Puget Sound, which included mapping in proximity to the project area (Kirk and Alexander 1990). The earliest Euroamericans in what would become Seattle settled on Denny Island, near what is now Second Avenue South and South King Street, in the 1850s.

### ***Site Development History***

Yesler's Mill was constructed in the Pioneer Square area in 1853, and the settlement grew quickly. By 1875, a U.S. Coast and Geodetic Survey chart shows the Seattle Coal & Transportation Company's wharf and railroad in the study area (see Figure 6). Various rail lines were constructed along the waterfront after 1882, including numerous lines in the rail right-of-way on the waterfront known as Railroad Avenue. The Great Northern Rail tunnel from South Washington Street to Alaskan Way between Virginia Street and Stewart Street was built in 1903; the north portal to the tunnel is about 250 feet northwest of the study area. In 1916, the first portion of the Seattle seawall was built, in the Pioneer Square area. Brought to a halt by the Great Depression, construction resumed in 1934 and reached as far north as Broad Street.

The Duwamish River outlet was a shifting intertidal zone prior to historic land modifications. Dredging of the East and West waterways of the Duwamish River occurred in 1895 to 1905, creating Harbor Island. William P. Fisher began the Fisher Flouring Mill shortly thereafter, in 1910. Production and capacity at the mill grew steadily through the twentieth century (with a dip during the Great Depression). In the 1990s, the flour milling operation was moved to Portland, and the building was sold to the Pendleton Flour Mills in 2001. King County purchased the building in 2003 and currently leases the warehouse and office portions (DAHP 2018); the Animal Care Center may be located in this building.

At the proposed Ocean Pavilion location, an office building was constructed at 1528 Alaskan Way in 1947, soon after the completion of the seawall. It is scheduled for demolition under the AWVRP.

Based on the historical development of Elliott Bay and contemporaneous maps, the history of the Ocean Pavilion location was likely intertidal and subtidal habitat prior to historic contact and into the early historic period. By the 1880s, this area was likely on piles as part of Railroad Avenue, and then filled by the seawall construction in 1934, and home to an office building and parking lot since 1947. The EBSP, substantially completed in 2017, included excavation and soil improvements from the southern curb of the project property to the waterfront. No significant cultural resources were observed during monitoring of the new seawall construction project, which reached approximately 25 feet bgs.

### ***Previous Research and Historic Properties***

One archaeological site has been recorded in the study area: 45K11099, a historic debris scatter, is located under Pier 62. Seven other archaeological sites have been recorded within 0.5 mile of the study area (Table 2). They are primarily historic sites, with the notable exception of the Baba'k<sup>w</sup>ob site, where shell midden and human remains were found. A deeply buried precontact shell midden (45K11353) was found within 0.5 mile of the potential location of the Animal Care Center. However, it is across the West

Waterway from the location, and is in a context that would have been upland prior to historic land modifications. No external construction will be required for the Animal Care Center.

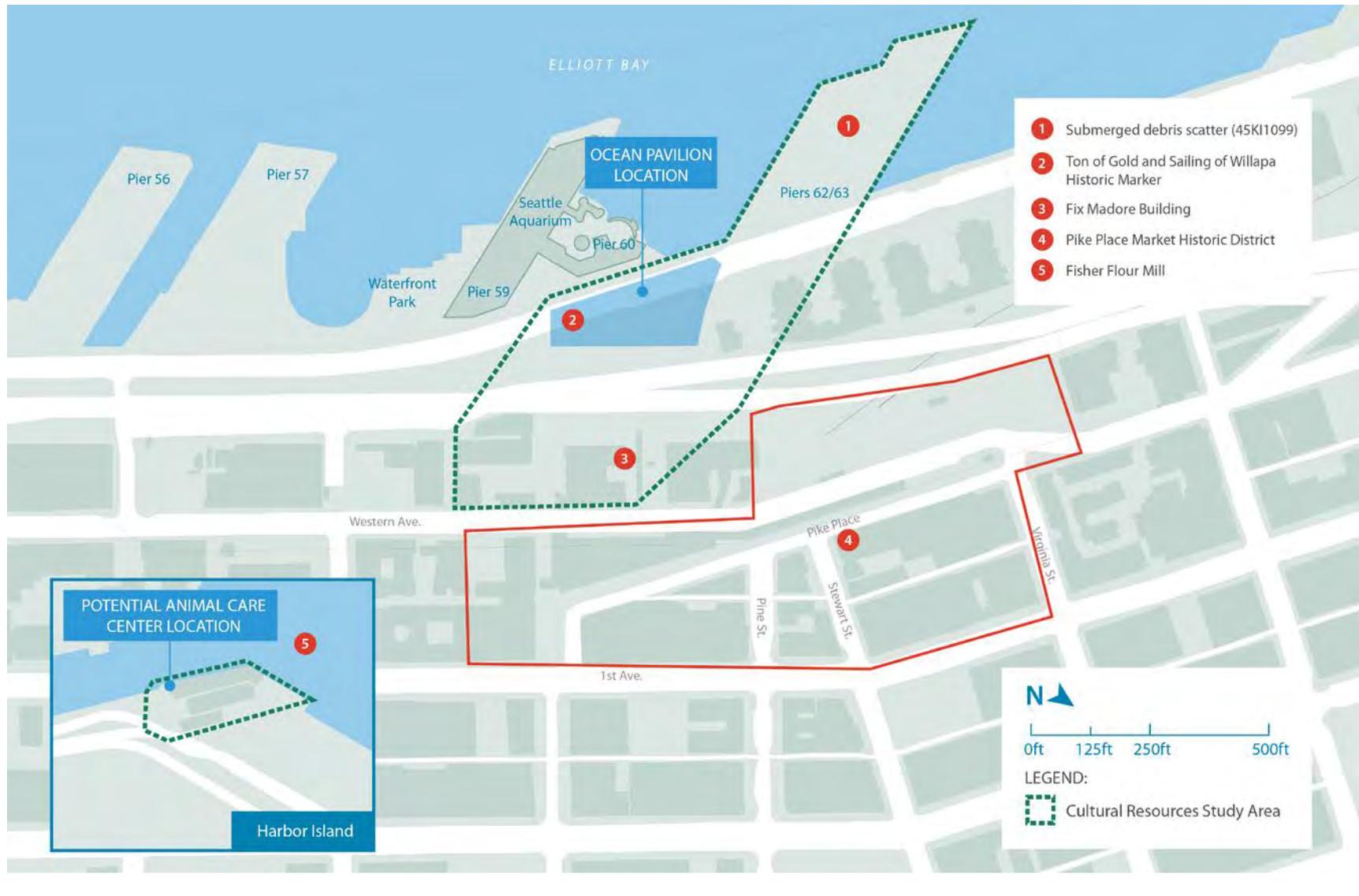
**Table 2**  
**Cultural Resources Within 0.5 Mile of the Study Area**

Site Number/ Historic Building	Description	Distance from Study Area
45KI1099	Submerged debris scatter at Piers 62/63	In water underneath Pier 62
45KI1161	Foundation of Municipal Market Commercial Building	0.06 mile north of Ocean Pavilion
45KI1085	Concrete wall near Western Avenue	0.12 mile south of Ocean Pavilion
45KI1084	Historic wood wall underneath Alaskan Way Viaduct	0.20 mile south of Ocean Pavilion
45KI0456	Baba'k <sup>w</sup> ob site – precontact shell midden, historic debris, human remains	0.25 mile northwest of Ocean Pavilion
45KI1011	Submerged debris scatter under Pier 54	0.32 mile south and in water of Ocean Pavilion
45KI0482	World Trade Center North site – historic debris scatter	0.39 mile northwest of Ocean Pavilion
45KI1353	Deeply buried shell midden identified in a geotechnical boring	0.5 mile southwest of potential Animal Care Center location
Fix Madore building	Built in 1920, formerly a small hotel	160 feet west of Ocean Pavilion building
Ton of Gold and Sailing of Willapa Site	Marker commemorating a historic location related to the Klondike Gold Rush	60 feet southwest of Ocean Pavilion building

Two historic buildings are located within the Ocean Pavilion portion of the study area, the Fix Madore building (1507 Western Avenue) and the Ton of Gold and Sailing of Willapa Site, a historic marker (Figure 7). The Fix Madore building has been determined eligible for listing in the National Register of Historic Places (NRHP). The Ton of Gold marker has been determined eligible for listing in the Washington Heritage Register (WHR). Neither is a designated City of Seattle Landmark.

Pier 62 is in the study area, but it was determined not eligible for listing in the NRHP and is not part of the Central Waterfront Piers Seattle Landmark (Piers 54, 55, 56, 57, and 59). There are more than 350 historic and potentially historic buildings within 0.5 mile of the study area, but none would be affected and are not discussed further in this memorandum.

The Fisher Flour Mill (also known as the Fisher Flouring Mill or Pendleton Mill), the potential location of the Animal Care Center, dates to 1910. Although the former Fisher Flour Mill building is older than 50 years, the land use is not classified as Historic Property; the building is not a City of Seattle Landmark and has not been evaluated for listing in state or national preservation registers. The construction of the Animal Care Center would not result in any modifications to the exterior of the mill, and therefore has no potential to affect the potential historic integrity of the building.



**Figure 7**  
**Existing Cultural Resources in the Study Area**

Twenty-eight cultural resources studies have been conducted within 0.5 mile of the Ocean Pavilion portion of the study area, one of which included subsurface testing. Three archaeological sonicores were excavated in the immediate vicinity of the Ocean Pavilion as part of the EBSP environmental review process (Hudson et al. 2013). The cores revealed approximately 26 feet of fill bgs. Beneath the fill was an indication of buried beach deposits. Extensive archaeological monitoring during construction of the EBSP did not encounter these deposits, likely because construction only reached about 25 feet bgs.

A number of geotechnical borings were collected as part of the design development of the Ocean Pavilion alternatives. Appendix A is the site plan and profiles showing the depth of the buried beach deposits across the site and the location of borings. Four borings were within the proposed footprint of one or both action alternatives. The buried beach deposits were present above glacial sediments in three of the four, as follows:

- EB-8B: buried beach deposit at 22 to 27 feet bgs (at the northern extent of the combined proposed footprint, approximately halfway between eastern and western extents)
- WS-21: no evidence of buried beach deposit; historic fill contacts glacial sediments (at the eastern extent of the combined proposed footprint, approximately halfway between the northern and southern extents)
- OP-2: buried beach deposits at 24 to 29 feet bgs (in the southwest corner of the combined proposed footprint)
- OP-2: buried beach deposits at 27 to 32 feet bgs (in the southwest corner of the combined proposed footprint)

These results indicate that buried beach deposits are thicker to the west (nearer the shoreline), and can be expected in the study area between 22 and 32 feet bgs.

Two cultural resources studies have been conducted within 0.5 mile of the potential Animal Care Center location. Neither included subsurface testing or recordation of the Fisher Flour Mill.

### *Technical Approach*

The No Action Alternative would not result in adverse impacts on cultural resources and no impact analysis was conducted for this alternative. Similarly, no adverse impacts are anticipated as a result of the development of the Animal Care Center because modifications to the building is anticipated to be limited to the interior of the building regardless of the location chosen; therefore, no additional analysis of impacts was conducted.

The potential impacts on cultural resources from the Ocean Pavilion under Alternative 2 were analyzed in the AWPOW EIS; therefore, this review focuses on the potential impacts of Alternative 3. The proposed Ocean Pavilion concept evaluated under Alternative 3 was compared to the No Action Alternative, including the Office of the Waterfront and Civic Projects' potential design refinements, to identify potential impacts and compare the two action alternatives.

To address archaeological resources, archaeological and geotechnical information from previous studies were synthesized to identify archaeological potential within the horizontal and vertical footprint of

potential ground disturbance. To address the historic buildings, potential impacts were identified based on Appendix B of the Draft EIS, which identified changes in traffic patterns.

### Impact Thresholds

The indicators for assessing potential impacts on cultural resources are identified in Table 3, along with the criteria that was used to determine the degree of impact. These indicators can also be used to identify differences between action alternatives and the associated potential impacts, including actions such as ground disturbance in areas with potential for buried archaeological resources; demolition modification of structures; increased noise, vibration, or dust that diminishes the integrity of the building; changes to vehicle or pedestrian access that affect the viability of a building; or impacts on the setting of a historic building.

**Table 3**  
**Impact Thresholds for Cultural Resources**

Impact Indicators	Criteria for Determining Degree of Impact
<ul style="list-style-type: none"> <li>• Destruction or modification of a cultural resource</li> <li>• Changes to the use or physical features of a cultural resource</li> <li>• Introduction of visual, atmospheric, or audible elements that diminish the integrity of the significant features of a cultural resource</li> </ul>	<p><b>Minor Impacts:</b>                      No known cultural resources are present within the vicinity of the proposed action; or cultural resources are present in the vicinity of the proposed action, but would not be destroyed, removed, changed, or diminished; the potential for encountering archaeological deposits is low</p> <p><b>Moderate Impacts:</b>                      No known cultural resources are present within the vicinity of the proposed action, or cultural resources are present in the vicinity of the proposed action, but impacts would not be of a severity that resulted in a resource no longer being eligible for listing in the WHR or NRHP; the potential for encountering archaeological deposits is moderate</p> <p><b>Significant Impacts:</b>                      Cultural resources would be destroyed, removed, changed, or diminished by the proposed action such that it would no longer be eligible for listing in the WHR or NRHP, and/or the potential for encountering archaeological deposits is high to very high</p>

## Results

### Overview

In general, construction of the Ocean Pavilion under both the action alternatives has some potential to affect historic or archaeological resources. However, in both cases impacts are likely to be minor. Alternative 2 has slightly more potential to affect archaeological materials than Alternative 3, because the horizontal footprint of the basement is larger (26,100 square feet [0.6 acre] for Alternative 2 versus 17,400 square feet [0.4 acre] for Alternative 3).

### Construction-Related Impacts and Mitigation Measures

No significant impacts on historic buildings or recorded archaeological sites during construction or operation were identified within the AWPOW EIS for Alternative 2, and the potential to affect unrecorded archaeological sites was determined to have a minor impact (SDOT 2016: Sections 9.2, 9.3, 10.2, and 10.3).

Potential minor impacts during construction on historic buildings may occur under both action alternatives. Potential impacts on the Fix Madore building could include those typical of large construction projects, such as noise, vibration, and airborne dust. There may be short-term access limitations, traffic congestion, and reduced parking in the study area. These impacts are considered minor because they are not expected to alter or diminish the historic significance or integrity of the property. Mitigation measures would include maintaining access to businesses, communicating with residents, and applying measures developed for other environmental topics, such as controlling noise and dust. No adverse impacts are anticipated to the Ton of Gold and Sailing of Willapa Site, a historic location and marker that would remain in place.

Potential moderate impacts during construction on archaeological resources may occur under both action alternatives due to ground-disturbing activities that may affect archaeological sites or objects. Ground disturbance for Alternative 2 could reach 60 to 80 feet bgs for the building basement and foundation (SDOT 2016, Figure 10-2). Under Alternative 3, ground disturbance is expected to extend approximately 40 feet bgs. Open excavation for the basement of the Ocean Pavilion would reach about 20 feet bgs, with 48-foot-diameter piles extending an additional 20 feet beneath the open excavation. The historic-era fill (extending 22 to 27 feet from the ground surface) and Pleistocene sediments (below 27 to 40 feet bgs) have little to no potential to disturb archaeological materials. However, the buried beach deposits in between (22 to 40 feet bgs) have moderate potential to disturb archaeological materials. Alternative 2 has slightly more potential to affect archaeological materials than Alternative 3 because the horizontal footprint of the basement is larger.

Mitigation measures to address potential impacts on archaeological materials between 22 to 40 feet bgs during installation of drilled shafts for piles could include preparation of an Archaeological Monitoring Plan to provide monitoring of any sediments between 22 to 40 feet bgs that are safely visible and accessible, if any. An Inadvertent Discovery Plan would be prepared and maintained on-site during construction.

The build out of the Animal Care Center would not result in any modifications to the exterior of the building, and therefore has no potential to affect the potential historic integrity of the building. No ground disturbance is proposed, so there is no potential to affect archaeological materials.

### *Long-Term Impacts and Mitigation Measures*

The Ocean Pavilion would not operate in, or affect the use of, any historic buildings. The operation of the Animal Care Center would not include any activities that would alter or diminish the Fisher Mill building. No long-term impacts on archaeological sites, historic buildings, or traditional cultural properties are currently anticipated under any of the alternatives; therefore, no mitigation measures are proposed.

### *Cumulative Effects and Mitigation Measures*

No adverse impacts have been identified; therefore, no cumulative effects are anticipated.

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