SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

SR 520, I-5 to Medina: Bridge Replacement and HOV Project

DECEMBER 2011

Kenmore Yard
NEPA/SEPA Environmental Reevaluation

Washington State Department of Transportation

U.S. Department of Transportation Federal Highway Administration

SR 520, I-5 to Medina:
Bridge Replacement and HOV Project

Kenmore Yard
NEPA/SEPA Environmental Reevaluation

Prepared for

Washington State Department of Transportation

Federal Highway Administration

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Attachment 3 - Historic Property Inventory Form

Acronyms and Abbreviations

APE	area of potential effects
BMPs	best management practices
CFR	Code of Federal Regulations
CTC	Concrete Technology Corporation
DAHP	Department of Archaeology and Historic Preservation
Ecology	Washington Department of Ecology
EIS	environmental impact statement
FHWA	Federal Highway Administration
HOV	high-occupancy vehicle
HPI	Historic Property Inventory
KMC	Kenmore Municipal Code
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
PA	Programmatic Agreement
ROD	Record of Decision
SEPA	State Environmental Policy Act
SMP	Shoreline Master Program
SR	state route
WISAARD	Washington Information System for Architectural and Archaeological Records Data
WRIA	water resource inventory area
WSDOT	Washington State Department of Transportation

SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation: Kenmore Yard

23 CFR §771.129
Washington State Department of Transportation/Federal Highway Administration

REGION/MODE	SR	PROJECT PROGRAM#	FEDERAL AID #	PROJECT#
ESO Mega Projects	520	852004B	0520.050	U52004B

PROJECT TITLE, ENVIRONMENTAL DOCUMENT TYPE & DATE APPROVED:

1) SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement (Final EIS), June 2011. Approved by signatory agencies Federal Highway Administration and Washington State Department of Transportation on May 26, 2011.
2) SR 520, I-5 to Medina: Bridge Replacement and HOV Project Record of Decision (ROD), August 2011. Approved by signatory agency Federal Highway Administration on August 4, 2011.
3) SR 520, I-5 to Medina: Bridge Replacement and HOV Project SEPA Addendum (Public Place Designation), October 2011. Approved by signatory agency Washington State Department of Transportation on October 3, 2011.
4) SR 520, I-5 to Medina: Bridge Replacement and HOV Project SEPA Addendum (Floating Bridge and Landings), November 2011. Approved by signatory agency Washington State Department of Transportation on November 18, 2011.

REASON FOR CONSULTATION:

Final design of the floating bridge and landings phase of the project began after FHWA issued the Record of Decision and WSDOT awarded a design-build contract. As design has advanced, a number of revised design features and construction techniques have been proposed, including the increased use of precast bridge components. This construction method maximizes the use of precast concrete components and reduces reliance on cast-in-place elements, and therefore would shift a portion of the bridge construction off-site. As a result, WSDOT is proposing to use an offsite industrial property in Kenmore, Washington (Kenmore Yard) for the manufacturing and storage of these ancillary bridge components. This change would result in some effects during project construction that are not specifically evaluated in the Final EIS; however, these activities would not result in new significant adverse environmental effects.

DESCRIPTION OF CHANGED CONDITIONS: (See Attachment 1 for more detailed description).

Changes in baseline information include:

1) Shifting from cast-in-place construction to a predominantly precast superstructure
2) Use of an offsite construction support yard (Kenmore Yard) for approximately 3 years
3) Construction of casting slabs and installation of utilities at the Kenmore construction support yard

HAVE ANY NEW OR REVISED LAWS OR REGULATIONS BEEN ISSUED SINCE APPROVAL OF THE LAST ENVIRONMENTAL DOCUMENT THAT AFFECT THIS PROJECT? YES ( ) NO (x) (If yes explain, use additional sheets if necessary)

WILL THE CHANGED CONDITIONS AFFECT THE FOLLOWING DIFFERENTLY THAN DESCRIBED IN THE ORIGINAL ENVIRONMENTAL DOCUMENT? (If yes, attach a detailed summary addressing the impacts and mitigation)

	YES	NO		YES	NO
1) THREATENED or ENDANGERED SPECIES	( )	(x)	5) HAZARDOUS WASTE SITES	( )	(x)
2) PRIME and UNIQUE FARMLAND	( )	(x)	6) HISTORIC or ARCHAEOLOGICAL SITES	( )	(x)
3) WETLANDS	( )	(x)	7) 4 (f) LANDS	( )	(x)
4) FLOODPLAINS	( )	(x)	8) 6 (f) LANDS	( )	(x)

1) Threatened or Endangered Species: WSDOT updated Endangered Species Act consultation to reflect the extended project area and barge traffic in the Kenmore Navigation Channel. This change would not constitute a significant adverse effect on listed species.

6) Historic or Archaeological Sites: WSDOT expanded the Area of Potential Effects (APE) and the limits of construction as a result of the use of the Kenmore Yard, and has updated DAHP, tribal, and other parties accordingly. No historic properties were identified in the expanded APE and there is limited potential to disturb archaeological resources within or near the limits of construction; therefore, no adverse effects were identified. DAHP has concurred with WSDOT's findings.

WILL THESE CHANGES RESULT IN ANY CONTROVERSY? YES ( ) NO (x) (If yes explain)

No controversy is anticipated from any of the proposed changes discussed here and described in Attachment 1.

WILL THESE CHANGES CAUSE ADVERSE IMPACTS IN THE FOLLOWING AREAS: (If yes, address comments below)

	YES	NO		YES	NO
1) AIR QUALITY	( )	(x)	7) WATER QUALITY	( )	(x)
2) NOISE	( )	(x)	8) VISUAL QUALITY	( )	(x)
3) LAND USE	( )	(x)	9) NATURAL RESOURCES and ENERGY	( )	(x)
4) TRAFFIC or TRANSPORTATION	( )	(x)	10) PUBLIC SERVICES and UTILITIES	( )	(x)
5) DISPLACEMENT (business or residence)	( )	(x)	11) VEGETATION and WILDLIFE	( )	(x)
			12) RECREATION	( )	(x)
6) ECONOMIC GROWTH and DEVELOPMENT	( )	(x)	13) SOCIAL IMPACTS	( )	(x)

COMMENTS:

This reevaluation does not change the overall impacts on resources that were discussed in the previously approved project documents listed above.

CONCLUSIONS and/ or RECOMMENDATIONS:

Changes as noted above and described in Attachment 1 would not result in new or significant adverse effects. The SR 520, I-5 to Medina: Bridge Replacement and HOV Project remains compliant with current federal, state, local, and departmental regulations and directives with regard to National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA) processes. This reevaluation document, along with supporting information, demonstrates that there would be no new or significant adverse effects resulting from these changes since the Final EIS was approved in June 2011 and the ROD was approved in August 2011.

I concur with the conclusions and recommendations above.

Region / Mode Official

Allison Hanson

Date 12/9/11

FHWA Official

Randolph L. Everett

Date 12/8/11

Table 1. **Summary of Reevaluation**

Change in Project Description	Change in Affected Environment	Are there significant new impacts?
Transportation		
Construction of casting slabs and installation of utilities at the Kenmore Yard, and use of the Kenmore Yard as a construction support facility for approximately 3 years	The Kenmore Yard, the entire Pioneer Towing property, and the following roadways have been added to the SR 520, I-5 to Medina project's affected environment for transportation: NE 175th Street and 68th Avenue NE (see Exhibit 2 in Attachment 1). SR 522 was part of the project's affected environment for the operational analysis in the Final EIS; it is now also included in the construction analysis.	No. The type of activity proposed for the site is consistent with its existing uses. The activity levels associated with the proposed casting facility would generate additional trips of less than 1 percent of recent total activity at the site. This change would not result in new significant adverse impacts on transportation.
Land Use		
Construction of casting slabs and installation of utilities at the Kenmore Yard site, and use of the Kenmore Yard site as a construction support facility for approximately 3 years	The Kenmore Yard site and adjacent properties have been added to the SR 520, I-5 to Medina project's affected environment for land use.	No. While activity levels would temporarily increase at the Kenmore Yard site, the site has a continuous history of industrial use and the continuation of this use for a 3-year construction period is compatible with adjacent uses.
Cultural Resources		
Construction of casting slabs and installation of utilities at the Kenmore Yard site and use of Kenmore Yard as a construction support facility for approximately 3 years	The parcel containing the Kenmore Yard site has been added to the SR 520, I-5 to Medina project's APE. No historic properties have been identified within this portion of the project APE.	No. While, construction activities would occur within the area added to the APE, the changes would not result in new impacts on historic properties including archaeological resources. The Kenmore Yard site was submerged prior to the mid-twentieth century, and was filled to allow for industrial use. There is limited potential for archaeological resources within or near the limits of construction.
Ecosystems		
Construction of casting slabs and installation of utilities at the Kenmore Yard, use of the Kenmore Yard as a construction support facility for approximately 3 years, and construction of gravity anchors on a barge moored at the Kenmore Yard wharf	The Kenmore Yard site area has been added to the SR 520, I-5 to Medina project's study area for ecosystems. For wetlands, the study area encompasses land within 200 feet of the site. For wildlife and habitat, the study area encompasses areas within 0.5 mile of the site. For fisheries, Lake Washington, its shoreline habitats, and its fish resources were already included in the project's affected environment; however, additional information has been provided about the Sammamish River, which is adjacent	No. No wetlands or wildlife habitat would be disturbed. Noise and human activity levels that could affect wildlife would be consistent with existing nearby uses. There would be no in-water work and thus no effect on aquatic substrate. Barge activity would be consistent with existing barge activity and would have no effect on aquatic habitat compared to existing conditions. Use of the Kenmore Yard site would not result in new significant effects on ecosystems.

Table 1. **Summary of Reevaluation**

Change in Project Description	Change in Affected Environment	Are there significant new impacts?
	to the site.	
Hazardous Materials		
Construction of casting slabs and installation of utilities at the Kenmore Yard, and use of the Kenmore Yard site as a construction support facility for approximately 3 years	The Kenmore Yard has been added to the SR 520, I-5 to Medina project's affected environment for hazardous materials.	No. While Kenmore Yard would be considered a known "hazardous material site" where contaminated materials may be encountered, the site would be developed and operated in a manner consistent with the site's Consent Decree from the Department of Ecology. Impacts from hazardous material sites and mitigation measures applying to such sites were fully described in the Final EIS and discipline reports.
Navigable Waterways		
Use of the Kenmore Yard as a construction support facility for approximately 3 years and construction of gravity anchors on a barge moored at the Kenmore Yard wharf	The navigable waters of Lake Washington were part of the affected environment for navigable waterways analysis in the Final EIS. However, baseline activities at the Kenmore Navigation Channel and the Kenmore Yard wharf have been added to the SR 520, I-5 to Medina project's affected environment.	No. The increase in barge traffic in the north end of Lake Washington would average approximately 1 barge trip per day, and would not adversely affect vessel traffic in the north end of Lake Washington. Constructing some bridge components at the Kenmore Yard site would reduce the need to construct some components at Grays Harbor or Tacoma and transport them through the ship canal to Lake Washington. The distance the tug and barges would travel to transport the anchors would be reduced from approximately 90 miles round-trip from Tacoma to approximately 19 miles round-trip.
Environmental Justice		
Use of the Kenmore Yard as a construction support facility for approximately 3 years	None. As discussed in the Final EIS, the Muckleshoot Indian Tribe's usual and accustomed fishing areas within the identified affected environment include all of Lake Washington and the Lake Washington Ship Canal.	No. While there would be less barge traffic coming through the Lake Washington Ship Canal and more barge traffic through north Lake Washington from the Kenmore Yard than evaluated in the Final EIS, this change would not result in new significant impacts on tribal treaty fishing. There are no other changes that would affect low-income, minority, or limited-English-proficient populations.
Cumulative Effects		
Use of the Kenmore Yard as a construction support facility for approximately 3 years, construction	None. The study area evaluated in the Final EIS included the central Puget Sound region, which includes	No. While there would be less barge traffic coming through the Lake Washington Ship Canal and more

Table 1. **Summary of Reevaluation**

Change in Project Description	Change in Affected Environment	Are there significant new impacts?
of casting slabs and installation of utilities at the Kenmore Yard, and construction of gravity anchors on a barge moored at the Kenmore Yard wharf	King, Kitsap, Pierce, and Snohomish counties.	barge traffic through the north end of Lake Washington from the Kenmore Yard than evaluated in the Final EIS, this change would not result in new significant cumulative impacts. Additionally, while there would be an industrial use on a portion of the Pioneer Towing property for approximately 3 years, this change would not result in a new significant cumulative impact.

Attachment 1 - Description of Changed Conditions and Effects

Attachment 1
Description of Changed Conditions and Effects

Environmental Reevaluation/Consultation Form for
SR 520, I-5 to Medina: Bridge Replacement and HOV Project
Final Environmental Impact Statement, approved May 26, 2011;
Record of Decision, approved August 4, 2011;
SEPA Addendum: Public Place Designation, approved October 3, 2011; and
SEPA Addendum: Floating Bridge and Landings, approved November 18, 2011

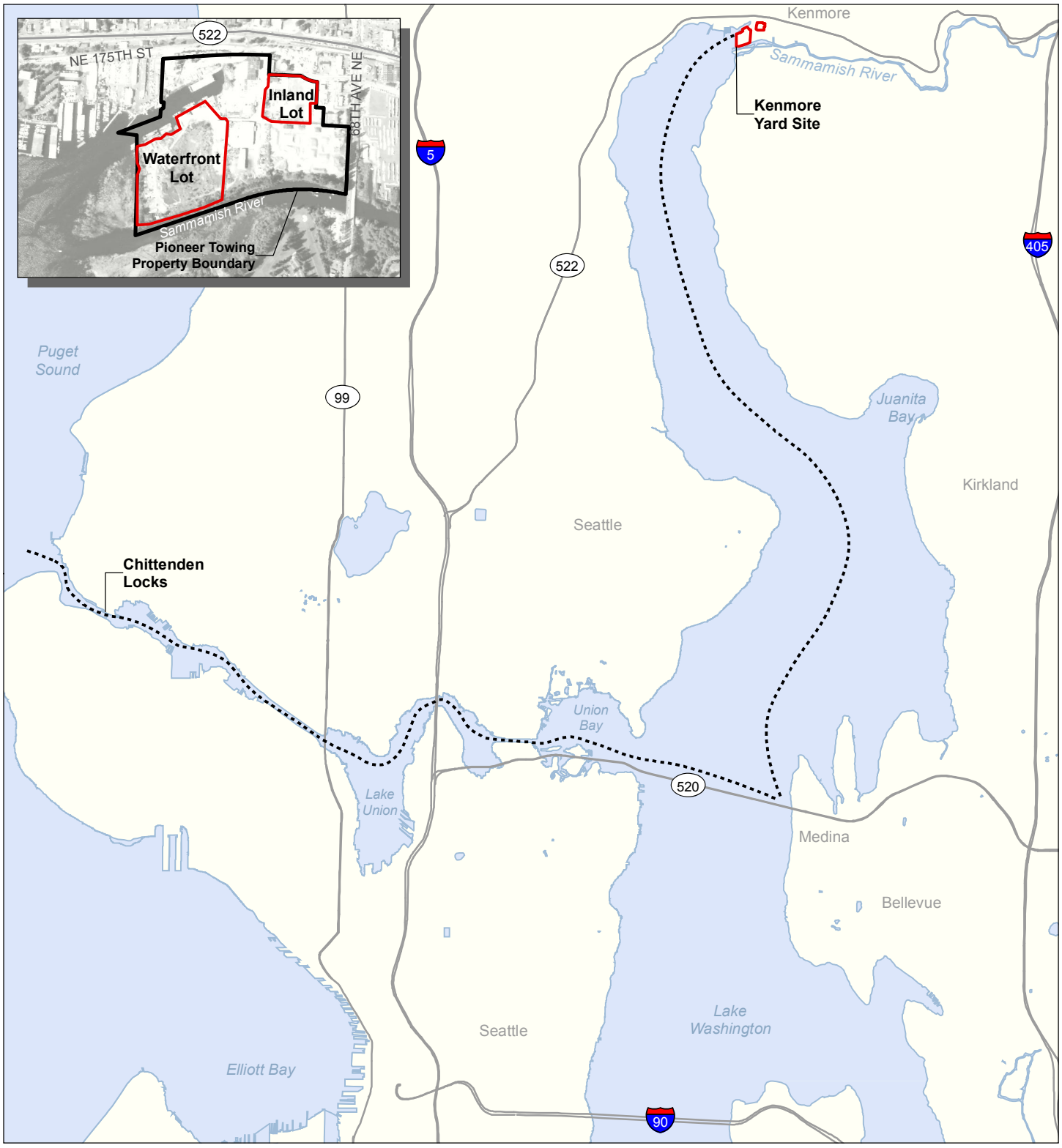
Description of Changed Conditions and Effects from those Described and Evaluated in the Final Environmental Impact Statement and Record of Decision

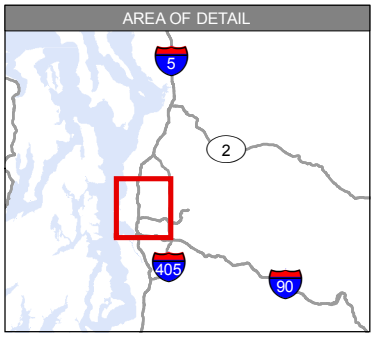
The Washington State Department of Transportation (WSDOT) and the Federal Highway Administration (FHWA) have prepared this National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA) Environmental Reevaluation for the SR 520, I-5 to Medina: Bridge Replacement and High-Occupancy Vehicle (HOV) Project to evaluate the proposed use of an offsite industrial property for the manufacturing and storing of ancillary bridge components. This site, which would be the primary construction support facility for the Floating Bridge and Landings phase of the I-5 to Medina project, is located in Kenmore, Washington (Exhibit 1). It consists of two areas, a waterfront lot and an inland lot, which are together referred to as the Kenmore Yard (Exhibit 2). The use of the Kenmore Yard site, and the proposed activities therein, would result in some effects during project construction that are not specifically evaluated in the *SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement and Final Section 4(f) and 6(f) Evaluations* (Final EIS, WSDOT 2011a); however, these activities would not result in new significant adverse environmental effects, as discussed in Attachment 2.

Reasons for the Use of an Offsite Construction Support Yard

The method identified in the Final EIS for construction of the east approach and outfitting of pontoons included a combination of cast-in-place and precast construction techniques. The east approach would have been built with a cast-in-place box girder construction method. Pontoons would have been outfitted with a cast-in-place superstructure and a precast substructure.

The precast bridge elements would have supplemented the major cast-in-place bridge elements, and would also have allowed a portion of the structure to be cast offsite. The Final EIS stated that the precast bridge elements would have been produced at the gravel-surfaced laydown areas surrounding the Grays Harbor casting basin, and also in the space adjacent to the Concrete Technology Corporation (CTC) site in Tacoma.





Barge Route

Kenmore Yard Site (Waterfront Lot and Inland Lot)

Waterbody

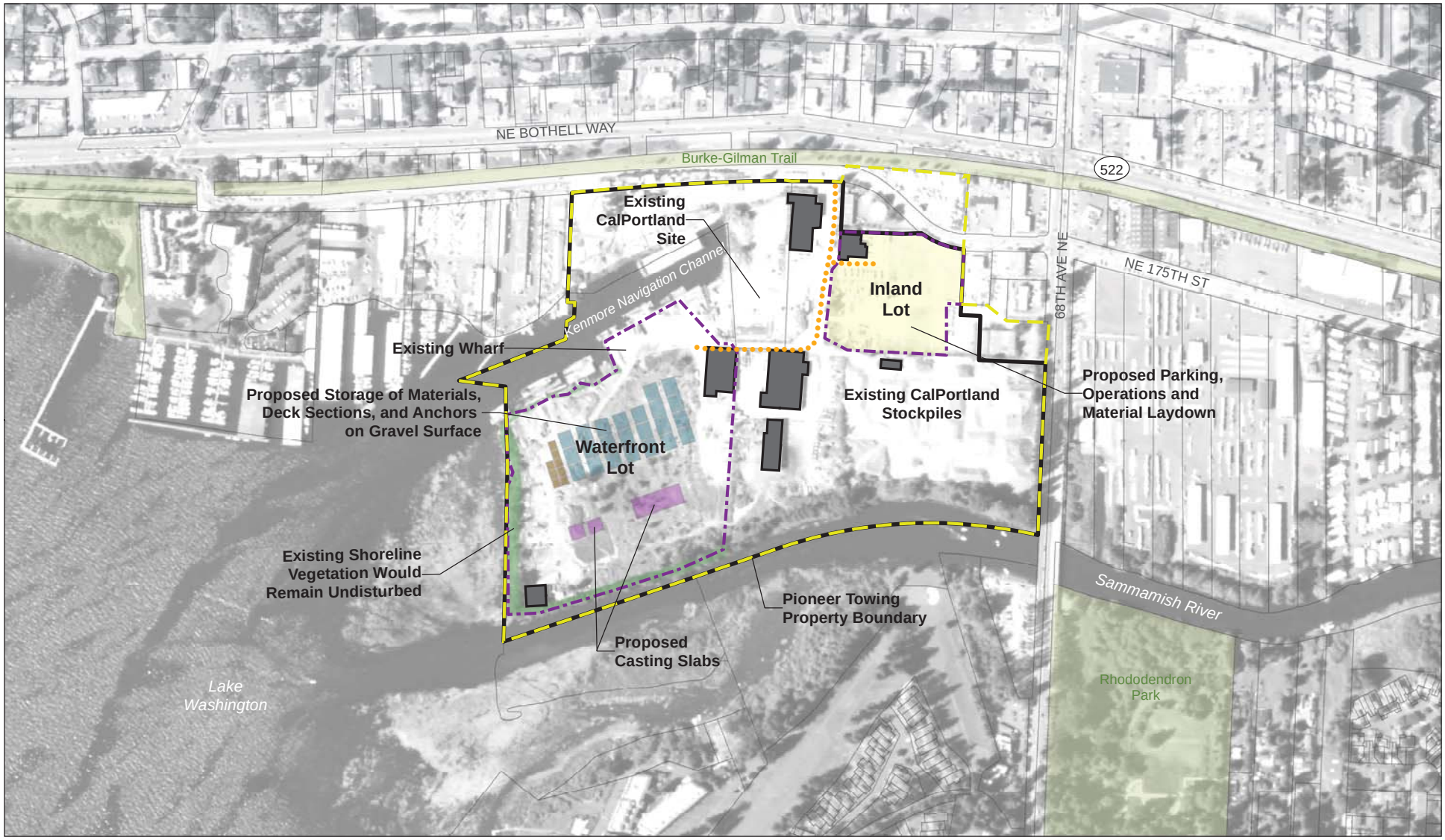
N

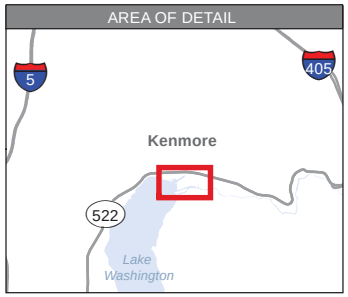
0 0.5 1 Miles

Source: King County (2004) GIS Data (City Limits), King County (2007) GIS Data (Water Bodies), WSDOT (2004) GIS Data (State Routes) and CH2M HILL (2008) GIS Data (Navigable Waterways). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.

Exhibit 1. **Kenmore Yard Site Context**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project
Kenmore Yard Environmental Reevaluation





- Existing Access Road
- Casting Slab
- Anchor Storage
- Deck Storage
- Parking and Laydown Area
- Shoreline Vegetation
- Park
- Existing Structure on the Pioneer Towing Property
- Kenmore Yard Site (Waterfront Lot and Inland Lot)/ Limits of Construction
- LakePointe Development Boundary
- Pioneer Towing Property Boundary
- Parcel

N

0 100 200 400 Feet

Source: NAIP (2009) Aerial Photo, King County (2009) GIS Data (Parcels), Critigen (2011) GIS Data (Park and Trails). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.

Exhibit 2. **Kenmore Yard Site Plan**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project
Kenmore Yard Environmental Reevaluation

Once constructed, the precast bridge elements would either have been shipped by barge to available port locations throughout Puget Sound, where pontoons would be moored and outfitting would begin, or towed to Lake Washington and incorporated into the final bridge alignment.

WSDOT now proposes to increase the use of precast bridge components and reduce the extent of cast-in-place construction. A precast segmental bridge deck would replace the cast-in-place superstructure noted in the Final EIS on the low-rise pontoons, and precast girders and pier caps would be used on the highrise pontoons. The low-rise portion of the floating bridge is the longest portion across the lake, between the east and west transition spans, which are considered the high-rise pontoons. For the east approach, large sections of the transition spans would be built offsite and then lifted into their final position. These precast components would reduce the amount of cast-in-place elements that were identified as part of the construction method described in the Final EIS. The effects of the changes in bridge design are described in a separate analysis by WSDOT entitled Floating Bridge and Landings SEPA Addendum (November 2011) and a forthcoming NEPA Environmental Reevaluation.

As a result of the increased use of precast components, up to 50 percent of the construction work identified in the Final EIS would be transferred away from Lake Washington, and would instead occur at an upland location, reducing the impacts of construction on the lake. While the laydown space at Grays Harbor and CTC may still be used as part of the project, WSDOT identified an opportunity to increase efficiency and minimize effect by concentrating precast work at an existing industrial site closer to the project corridor.

With this proposed change, the Kenmore Yard would serve as the primary construction support facility for construction of the floating bridge and landings and would provide additional space to manufacture the precast bridge components.

Use of Kenmore Yard as an Offsite Construction Support Yard

As described above, WSDOT now proposes to supplement the laydown space at Grays Harbor and CTC with the Kenmore Yard, which would be used as the primary construction support facility. The two areas that make up the proposed Kenmore Yard, the waterfront lot and the inland lot, total approximately 20 acres. The two lots are within one tax parcel, which is owned by Pioneer Towing. The parcel is part of a larger 50-acre industrial property known as the Pioneer Towing property, which has a continuous history of industrial use dating back to the early 1950s. The site has access to local roadways through two entrances/exits to NE 175th Street.

Since the early 1950s, the Pioneer Towing property has hosted industrial and manufacturing operations, including a variety of ready-mix concrete operations, conducted by a number of entities, including Kenmore Building Materials, Pioneer Towing Company (doing business as Kenmore Pre-Mix), and Glacier Northwest. These entities have used the site for manufacturing of concrete and concrete products, including aggregate storage, sales, and concrete recycling.

In the late 1990s, an environmental impact statement (EIS) was prepared for a commercial/residential development on the site named LakePointe. The LakePointe Development

property also includes a parcel to the north of the Pioneer Towing property across NE 175th Street and extending to the Burke-Gilman Trail, and a portion of a parcel to the east of the Pioneer Towing property extending to 68th Avenue NE (see Exhibit 2). Site permits for the LakePointe Development were approved and are still active today. Construction of this commercial/residential development has been deferred due to economic conditions. However, the LakePointe EIS recognized that industrial uses would continue on the site until development of the project became feasible.

The Kenmore Yard site's waterfront lot is approximately 14 acres and has approximately 2,000 linear feet of shoreline along Lake Washington. The lot includes approximately 300 feet of a 400-linear-foot timber bulkhead with a concrete wharf surface abutting the Kenmore Navigation Channel to the north. There are two existing buildings on the lot, which would support the construction operations. One of the buildings is an approximately 17,000-square-foot warehouse and the second building is a 1,400-square-foot three-sided shed at the southwest corner of the lot. The lot was most recently leased by Waterfront Construction, which ceased operation at the site in the second half of 2010.

The Kenmore Yard site's inland lot is approximately 6 acres and has an existing approximately 7,000-square-foot office building. Adjacent to the building is a 25,500-square-foot asphalt-paved parking lot. Undeveloped areas of the lot are surfaced with gravel.

The waterfront lot and the inland lot would be the primary construction support facility for the Floating Bridge and Landings phase of the project for approximately 3 years, lasting from early 2012 until spring 2015. The operations at the Kenmore Yard would include casting of concrete bridge deck panels and anchors, materials staging and storage, barge loading and unloading, and general operations to support the bridge construction.

The waterfront lot would be used primarily for the casting of bridge decking components and fluke anchors. The completed precast components would be stored on the gravel-surfaced areas of the yard, in preparation for being loaded onto a barge and transported south to the floating bridge site in Lake Washington. Rebar and other construction materials would also be stored alongside the precast components. Barges would deliver precast components from the waterfront lot to the floating bridge site approximately once per day, making a daily round trip, throughout the 3-year construction period.

Gravity anchors would be cast on a barge moored at the existing wharf on the waterfront lot. Because of their weight, the anchors cannot be cast on land and lifted across the wharf. Once the gravity anchors have cured on the barge, the barge would be transported south to the new bridge alignment for anchor placement. This would occur eight times during the first year of project construction.

The inland lot would be used for material storage. The existing buildings and parking areas would be used to support the construction operations.

Modifications to the Site

Deferred Maintenance by Property Owner

Prior to WSDOT's mobilization at the Kenmore Yard site, the property owner will complete several maintenance activities on the site. These activities are not part of the SR 520, I-5 to Medina project; rather, they are being undertaken as deferred maintenance necessary to prepare the site for any industrial user. They include the relocation of existing stockpiled material and vegetation from the middle of the lot, resurfacing of the site with crushed rock, upgrading storm drainage, and repairing the existing bulkhead and wharf at the waterfront lot. The regrading and resurfacing work will rehabilitate existing gravel-surfaced areas and provide erosion control, as required by a consent decree that the site owner entered into with the Washington State Department of Ecology in 2001. Use of the Kenmore Yard site for construction support is fully consistent with the consent decree's requirements for continued industrial use of the property. The site owner is obtaining all required permits and approvals for the work.

The owner's site maintenance work will also include construction of a perimeter berm around the gravel-surfaced working area of the yard to prevent storm drainage from entering the shoreline vegetation areas, as well as installation of sediment traps and infiltration basins which are discussed below. The existing shoreline vegetation will not be disturbed by the owner's maintenance activities.

Once the owner has completed the maintenance activities described above, which would prepare the site for lease to WSDOT, the Kenmore Yard site could be used as a construction support yard for the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project. Beginning in January 2012 and continuing through the first quarter of 2015, WSDOT proposes to use the Kenmore Yard site as the primary construction support facility for the Floating Bridge and Landings phase.

Improvements for SR 520, I-5 to Medina Project

Modifications to the Kenmore Yard site that are proposed as part of proposed changes to the SR 520, I-5 to Medina project would include installation of casting slabs with a process water collection system and installation of utilities. These site preparation activities are described further below. These activities would be conducted in compliance with required environmental compliance plans, including a Temporary Erosion and Sediment Control Plan; a Construction Water Quality Protection and Monitoring Plan; a Spill Prevention, Control, and Countermeasures Plan; a Collection, Containment, and Disposal Plan; a Stormwater Pollution Prevention Plan; and a Soil and Groundwater Management Plan. Stormwater would drain internally, with no direct discharges to Lake Washington. All stormwater management during site preparation activities would comply with the National Pollutant Discharge Elimination System Construction General Stormwater Permit (http://apps.ecy.wa.gov/permithandbook/permitdetail.asp?id=16).

Installation of Casting Slabs

In order to support the production of ancillary bridge components, three casting slabs would be built on the waterfront lot. These slabs would support the casting of concrete roadway decking panels and fluke anchors. The total area of the three casting slabs would be approximately 20,000

square feet. The casting slabs would be sections of concrete pavement up to 3 feet thick. Excavations for construction of the slabs would be no deeper than approximately 3 feet.

The largest casting slab, which would be used to cast the decking panels, would be approximately 200 feet long by 70 feet wide. At the two longer sides of this slab, there would be a grade beam, approximately 2 feet deep, that would be used to support an approximately 80-foot-wide, 40-foot-tall, rolling vinyl fabric roof truss structure. The roof truss structure would move along the grade beam as needed during construction of the deck panels. The two smaller casting slabs would be approximately 50 feet long and 46 feet wide. These casting slabs would be used to cast the fluke anchors.

Process Water and Stormwater Collection for Casting Slabs

The casting slabs would be designed to collect all water on their surfaces when they are in use. Collected water would be considered process water, which must be treated before discharge. This process water would include concrete cure water and any rainfall falling onto the casting slabs. The roof truss described above would be designed to reduce the amount of rainwater coming into contact with the precast concrete operations.

Process water would be collected in sumps and pumped to temporary holding tanks on the site. Pretreatment of the collected process water would occur in these temporary holding tanks. A sewer connection and wastewater discharge permit will be obtained from the Northshore Utility District and King County for discharge of the pre-treated process water collected from the casting slabs to the City of Kenmore sanitary system through an existing sewer connection.

All stormwater falling on the gravel-surfaced areas would drain internally via sheet flow to three sediment traps, and would be infiltrated into the ground in basins constructed as part of the owner's maintenance on the property (described above). Stormwater flows up to the 100-year-storm event would be infiltrated with no direct discharge to Lake Washington. In the unlikely event that there are flows greater than the 100-year-storm quantity, manually controlled emergency overflow outlets would release overflows to Lake Washington. All stormwater management would be in accordance with the site owner's discharge permits from the Washington State Department of Ecology. If there are any manually controlled emergency overflows from the stormwater management system, they would be monitored in compliance with the discharge permits.

Utility Installation

Utilities at the Kenmore Yard site would be upgraded to serve the operation of a construction support yard. Utility upgrades would include a natural gas line extension, water service, electricity, and communications. Electricity would be connected from an existing transformer located in the southwest corner of the waterfront site. All utilities would be installed via trenching not to exceed 6 feet deep. The trenching would be installed in the center of the waterfront lot, outside of the 200-foot shoreline buffer as designated by the City of Kenmore, with the exception of an electrical utility trench to connect to an existing transformer located within the shoreline buffer.

Attachment 2 - Discipline-Specific Analyses

Attachment 2: Discipline-Specific Analyses

Introduction

This attachment discusses how the proposed changes to the project description (Attachment 1) would affect the natural and built environment in the project area, and whether those effects differ from the effects described in the *SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement and Final Section 4(f) and 6(f) Evaluations* (Final EIS; WSDOT 2011a). For this environmental reevaluation, WSDOT first determined which disciplines had the potential to be affected by the proposed design and construction changes. Those eight disciplines are addressed in this attachment. They include transportation, land use, cultural resources, ecosystems, hazardous materials, navigable waterways, environmental justice, and cumulative effects. Some disciplines, such as noise, were discussed in the Final EIS but are not included in this attachment; WSDOT concluded that there would be no potential for changes in effects on those resources compared to the effects described in the Final EIS. WSDOT thoroughly reviewed all of the proposed changes to the project description and identified the specific operational or construction changes that could potentially affect each discipline. These changes are summarized by discipline in the introductions to Sections 1 through 8.

WSDOT determined the potential effects of the proposed changes by using the methodologies described for each discipline in the Final EIS; the *SR 520, I-5 to Medina: Bridge Replacement and HOV Project Supplemental Draft Environmental Impact Statement and Section 4(f)/6(f) Evaluation* (SDEIS, WSDOT 2010); and the discipline reports (Attachment 7 of the Final EIS). The following sections summarize the findings and compare them to the findings of the Final EIS.

1. Transportation

1.1 Introduction

Transportation effects associated with the changes to the project description were evaluated and compared to those reported in Section 6.1 of the SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement and Final Section 4(f) and 6(f) Evaluations (Final EIS, WSDOT 2011a) and the Final Transportation Discipline Report (in Attachment 7 of the Final EIS). The change that is analyzed for potential transportation effects in this reevaluation is the use of the Kenmore Yard site as a supplemental construction yard for casting of concrete bridge deck panels and anchors, materials staging and storage, barge loading and unloading, and general operations to support the construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project. This reevaluation covers the following changes, which are described in greater detail in Attachment 1:

- Construction of casting slabs and installation of utilities at the Kenmore Yard
- Use of the Kenmore Yard as a construction support facility for approximately 3 years

The evaluation of transportation effects is based on a comparison of estimated project trip generation at the Kenmore Yard site to baseline data for the preceding 5 years of site operation. The evaluation concludes that no significant transportation effects would result from use of the site as proposed. The changes to the project and their effects are summarized in Table 1-1. Other changes to project construction as described in Attachment 1 are not expected to affect transportation.

Table 1-1. Summary of Transportation Reevaluation

Change in Project Description	Change in Affected Environment	Are there significant new impacts?
Construction of casting slabs and installation of utilities at the Kenmore Yard, and use of the Kenmore Yard as a construction support facility for approximately 3 years	The Kenmore Yard, the entire Pioneer Towing property, and the following roadways have been added to the SR 520, I-5 to Medina project's affected environment for transportation: NE 175th Street, and 68th Avenue NE (see Exhibit 2 in Attachment 1). SR 522 was part of the project's affected environment for the operational analysis in the Final EIS; it is now also included in the construction analysis.	No. The type of activity proposed for the site is consistent with its existing uses. The activity levels associated with the proposed casting facility would generate additional trips of less than 1 percent of recent total activity at the site. This change would not result in new significant adverse impacts on transportation.

1.2 Affected Environment

The Kenmore Yard site is located within the city of Kenmore at the northern end of Lake Washington in King County (see Exhibit 1 in Attachment 1). The Kenmore Yard consists of two

areas of operation: a 14-acre waterfront lot, and a 6-acre inland lot, which are both part of a 50-acre industrial property known as the Pioneer Towing property (see Exhibit 2 in Attachment 1).

The primary route with the potential to be affected by project use of the Kenmore Yard site is SR 522 via NE 175th Street and 68th Avenue NE. Signalized intersections are present on 68th Avenue NE at both NE 175th Street and SR 522. Exhibit 2 in Attachment 1 shows these roadways and the Kenmore Yard site access.

1.3 Potential Effects

The potential transportation effects of use of the Kenmore Yard site as a casting and construction support facility would be associated with traffic-generating activities such as delivery of materials to the site and arrivals/departures of employees working at the site. Project-related traffic would access the site at NE 175th Street near 65th Avenue NE. Eastbound SR 522 traffic has direct, right-in/right-out access to the site via 65th Avenue NE. Full access to and from SR 522 is available via 68th Avenue NE.

1.3.2 Changes in Operational Effects

With completion of construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project, there would be no use of the Kenmore Yard in association with the project. Therefore, there would be no operational effects that were not disclosed in the Final EIS and Record of Decision (WSDOT 2011b).

1.3.1 Changes in Construction Effects

During preparation of the Kenmore Yard site, construction equipment would be used to install concrete casting slabs and utility upgrades. It is assumed that concrete for the casting slabs would be hauled from the adjacent CalPortland concrete plant on the Pioneer Towing property. This haul route does not require travel on surface streets external to the Pioneer Towing property. Thus, the trips associated with delivery of concrete to the Kenmore Yard site would not affect transportation on public roadways.

There would be some deliveries of materials and equipment to the CalPortland plant and the Kenmore Yard site associated with the casting operation. During use of the Kenmore Yard site for casting and construction support activities, up to 10 truck trips per day are estimated for those deliveries. The construction traffic would enter the site via NE 175th Street, as described above. This access for site trips is consistent with truck routes for existing and past industrial uses at the Pioneer Towing property. Construction deliveries would typically access the site during the middle of the day, during non-peak times, to avoid traffic congestion.

This analysis considers trip generation for the Pioneer Towing property as a whole, rather than the specific Kenmore Yard lots, because it allows for a reasonable baseline comparison to evaluate the effect on public roadways. The baseline rate of trip generation for the Pioneer Towing property was established by reviewing records of operations for the preceding 5-year period. Traffic to the

property during that period included employee and industrial truck traffic associated with CalPortland/Glacier NW, Waterfront Construction, and Lakeshore Marine Construction. Peak productivity in recent years occurred from 2007 to 2008, during which approximately 36 employees were working at the property and commuting in single-occupancy vehicles during peak commute hours. Also during this period, approximately 240 trucks per day left the property with concrete and aggregate deliveries and returned empty (240 round trips). This truck traffic equals approximately 24 round trips per hour over a 10-hour day, including peak commute hours.

In 2009, 2010, and 2011 to date, trip generation at the property has declined to approximately 45 percent of the 2007-2008 rates due to a reduction in CalPortland business at this location. Approximately 105 trucks per day, or approximately 10 truck round trips per hour, currently access the property. Therefore the additional trips associated with the proposed casting and construction support activities (10 per day) would result in total trip generation for the Pioneer Towing property well below peak operations in the last 5 years.

As noted above, concrete used in the casting process would be hauled internally on the Pioneer Towing property from the adjacent CalPortland concrete plant. This haul route does not require travel on external surface streets. Aggregates for concrete production are transported to the CalPortland plant via barges on Lake Washington. Therefore, roadway traffic would not be affected by aggregate deliveries associated with the casting operation.

Finished concrete products produced at the Kenmore Yard site would be transported via barges to the SR 520 floating bridge. The effects of this barge transport on navigation are discussed in the Navigable Waterways section of Attachment 2.

Previous comments by the City of Kenmore on the *Draft Environmental Impact Statement, SR 520 Bridge Replacement and HOV Project* (WSDOT 2006) and the *SR 520, I-5 to Medina: Bridge Replacement and HOV Project Supplemental Draft Environmental Impact Statement and Section 4(f)/6(f) Evaluation* (WSDOT 2010) have expressed concern regarding the potential for tolling of SR 520 to divert traffic onto SR 522. Tolling is expected to begin in December 2011, shortly before WSDOT begins construction support work at the Kenmore Yard site. Because traffic modeling for the Final EIS concluded that the project would not substantially affect travel demand on SR 522, and because operation of the Kenmore Yard would create only 10 additional truck trips—fewer than the historical baseline—it is not expected that these effects would combine to cause additional congestion on SR 522.

Based on a review of the above changes in the project, changes in construction effects from those described in Final EIS transportation analysis and Record of Decision are expected to be negligible.

1.4 Mitigation

1.4.2 Operational Mitigation

Because the Kenmore Yard site would not be used in association with operation of the SR 520, I-5 to Medina project or of the Floating Bridge and Landings phase of the project, there would be no changes to operational effects from those described in the Final EIS and Record of Decision. Therefore, no mitigation is recommended beyond those transportation improvements committed to in the Record of Decision.

1.4.1 Construction Mitigation

As described above, no significant changes in construction effects from the effects described in the Final EIS and Record of Decision are expected. Therefore, no additional transportation mitigation measures are recommended beyond those committed to in the Record of Decision.

1.4.3 Negative Effects Remaining after Mitigation

No significant negative transportation effects are identified for the proposed use of the Kenmore Yard site; therefore, none would remain after SR 520, I-5 to Medina project mitigation measures are applied.

1.5 Conclusion

No significant operational or construction impacts are identified for the revised project description that were not previously identified in the Final EIS and Final Transportation Discipline Report.

2. Land Use, Economics, and Relocations

2.1 Introduction

Land use, economic, and relocations effects associated with the changes to the project description were evaluated and compared to those reported in Sections 5.2 and 6.2 of the SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement and Final Section 4(f) and 6(f) Evaluations (Final EIS, WSDOT 2011a), the 2009 Land Use, Economics, and Relocations Discipline Report (in Attachment 7 of the Final EIS), and the 2011 Land Use, Economics, and Relocations Discipline Report Addendum and Errata (also in Attachment 7). The change that is analyzed for potential land use effects in this reevaluation is the use of the Kenmore Yard site as a supplemental construction yard for casting of concrete bridge deck panels and anchors, materials staging and storage, barge loading and unloading, and general operations to support the construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project. This reevaluation covers the following changes, which are described in more detail in Attachment 1:

- Construction of casting slabs and installation of utilities at the Kenmore Yard site
- Use of the Kenmore Yard site as a construction support facility for approximately 3 years

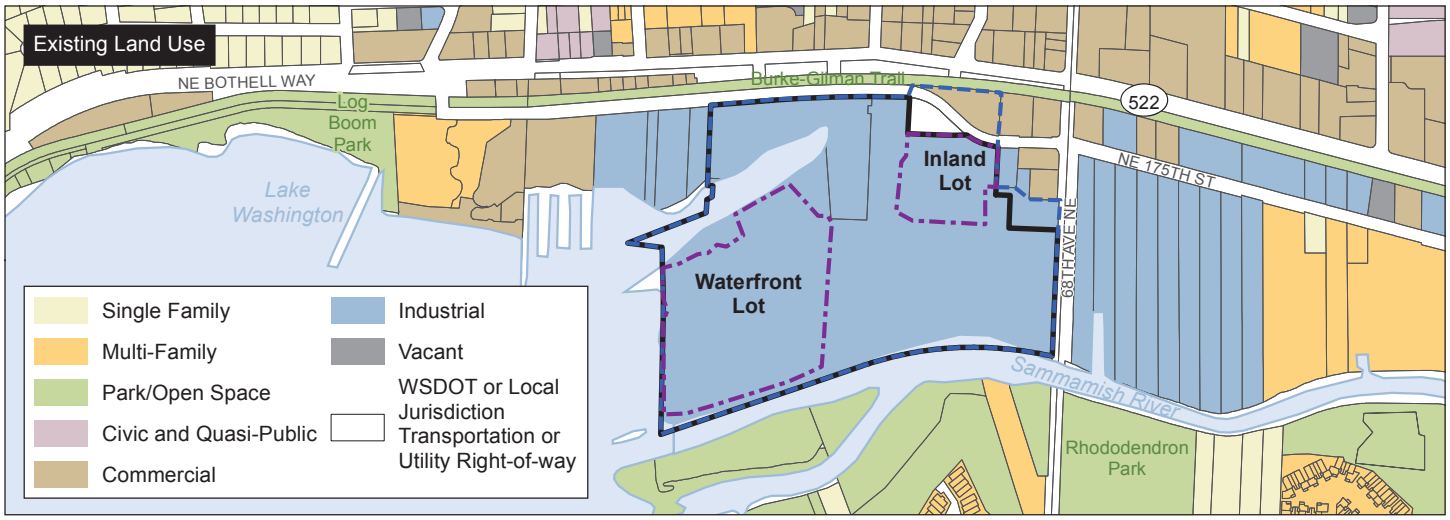
These changes to the project and their effects are summarized in Table 2-1. Other changes to project construction as described in Attachment 1 are not expected to affect land use.

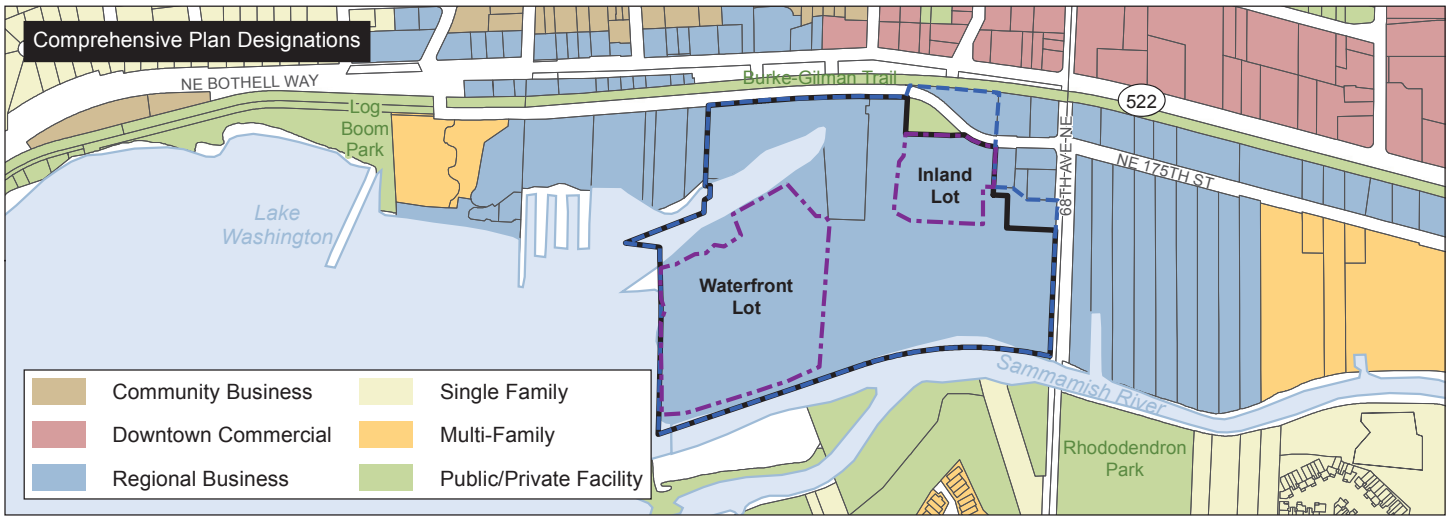
Table 2-1. Summary of Land Use, Economics, and Relocations Reevaluation

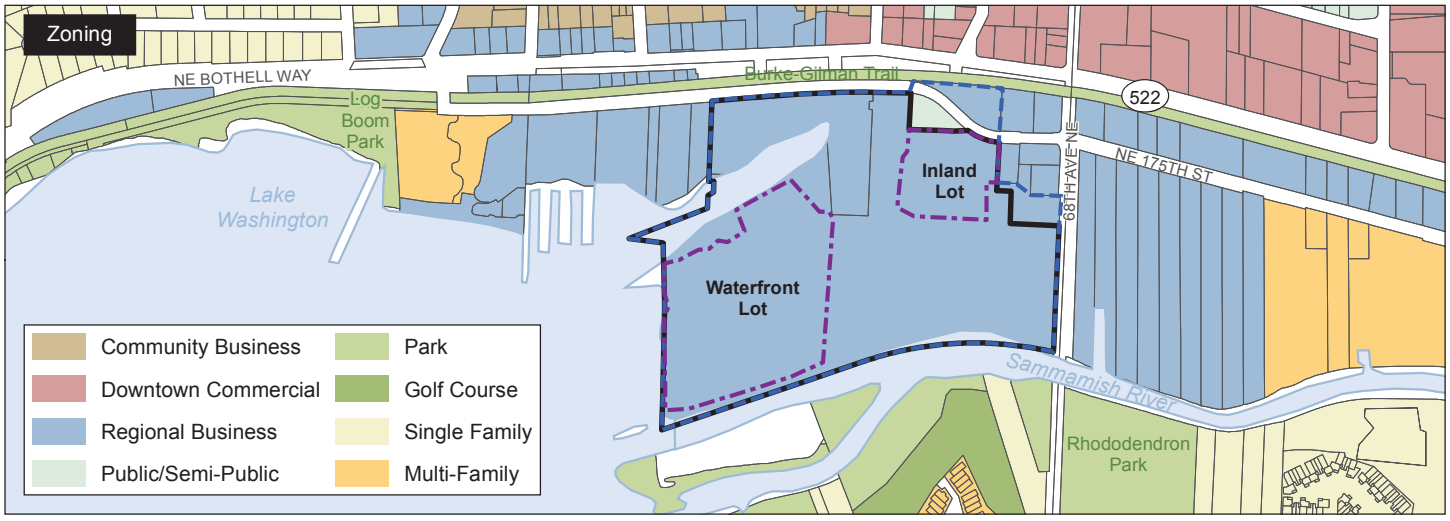
Change in Project Description	Change in Affected Environment	Are there significant new impacts?
Construction of casting slabs and installation of utilities at the Kenmore Yard site, and use of the Kenmore Yard site as a construction support facility for approximately 3 years	The Kenmore Yard site and adjacent properties have been added to the SR 520, I-5 to Medina project's affected environment for land use.	No. While activity levels would temporarily increase at the Kenmore Yard site, the site has a continuous history of industrial use and the continuation of this use for a 3-year construction period is compatible with adjacent uses.

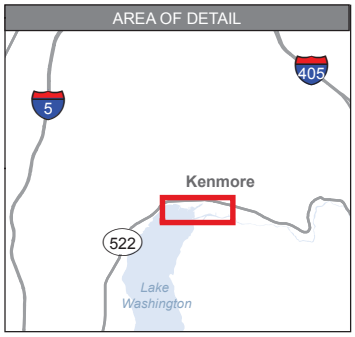
2.2 Affected Environment

The Kenmore Yard site is located within the city of Kenmore at the northern end of Lake Washington in King County (see Exhibit 1 in Attachment 1). The site consists of two areas: a 14-acre waterfront lot and a 6-acre inland lot (see Exhibit 2 in Attachment 1). The two lots are located within one parcel (112604-9001). This parcel and an adjacent parcel to the north (112604-9020) together make up a 50-acre industrial property known as the Pioneer Towing property (Exhibit 2-1) See Attachment 1 for further information.









Kenmore Yard Site (Waterfront Lot and Inland Lot)/Limits of Construction

LakePointe Development Property Boundary

Pioneer Towing Property Boundary

Parcel

N

0 500 1,000 Feet

Source: King County (2004) GIS Data (City Limits), King County (2007) GIS Data (Water Bodies), City of Kenmore (2010) Zoning Map, City of Kenmore (2009) Existing Land Use and Comprehensive Plan Maps, WSDOT (2004) GIS Data (State Routes). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.
Note: Residential zones R-1 through R-8 are shown as Single-Family; R-12 through R-48 are shown as Multi-Family.

Exhibit 2-1. **City of Kenmore Existing Land Use, Comprehensive Plan Designations, and Zoning**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project
Kenmore Yard Environmental Reevaluation

As described in Attachment 1, in the late 1990s, an environmental impact statement (EIS) was prepared for a master-planned commercial/residential development on the Pioneer Towing property and two adjacent parcels, together referred to as the LakePointe Development property. The LakePointe Mixed-Use Master Plan Final EIS was issued by the King County Department of Development and Environmental Services in 1998, just prior to the City of Kenmore's incorporation. The LakePointe Development property also includes a parcel to the north of the Pioneer Towing property across NE 175th Street and extending to the Burke-Gilman Trail, and a portion of a parcel to the east of the Pioneer Towing property extending to 68th Avenue NE (see Exhibit 2-1).

Access to Kenmore Yard Site

Access to the Pioneer Towing property and Kenmore Yard site is from NE 175th Street at the northern property boundary. Internal driveways from the NE 175th Street access serve the waterfront and inland lots (see Exhibit 2 in Attachment 1).

Existing and Adjacent Uses

Kenmore Yard Site

Historically, the lots that make up the Kenmore Yard site have been used for industrial and marine construction support activities, consistent with the use of the larger Pioneer Towing property of which they are a part. Historical operations of the two lots have included small storage and manufacturing industries, sand and gravel staging and support facilities, and associated offices. The two lots have been used for material stockpiling in the recent past but are currently vacant.

The waterfront lot is surrounded by Lake Washington to the west, Kenmore Navigation Channel—an active industrial waterway—to the north, existing industrial uses on other portions of the Pioneer Towing property to the east, and the mouth of the Sammamish River to the south. Exhibit 2-1 shows the existing land uses on the properties surrounding the Kenmore Yard site.

The inland lot is surrounded on the west and south by existing industrial uses on other portions of the Pioneer Towing property. Adjacent to the inland lot on the north are a utility use (parcel 112604-9133, King County Metro Pump Station), and a transportation use on NE 175th Street. Across from NE 175th Street are a commercial use and an office use (parcel 112604-9137, Best Auto Recovery and Upscale Construction). Across NE 175th Street to the northeast is an office use (parcel 112604-9118, Strathy Brothers Dairy). To the east of the inland lot are industrial uses on an adjacent parcel (parcel 112604-9153, a warehouse) and industrial uses on the Pioneer Towing property (within parcel 112604-9001). To the east of this portion of parcel 112604-9001 is an industrial use (parcel 112604-9158, Custom Industries, a sheltered workshop/light manufacturing facility) (King County Department of Assessments 2011, Google Earth 2011).

Pioneer Towing Property

The Pioneer Towing property, including the Kenmore Yard lots, has a continuous history of industrial use dating back to the early 1950s. The southeast portion of the Pioneer Towing property

is currently used as a sand and gravel stockpile yard for CalPortland and the north central portion for CalPortland operations (see Exhibit 2-1).

Existing uses adjacent to the Pioneer Towing property include watercraft navigation in the Kenmore Navigation Channel; industrial use at the Kenmore Air terminal across the channel from the southwest portion of the property and adjacent on the west to the northwest portion of the property; transportation on NE 175th Street to the north, and also the King County Metro Pump Station to the north. Across from most of NE 175th Street is park/transportation use on the Burke-Gilman Trail. North of the Burke-Gilman Trail is NE Bothell Way (SR 522), and a variety of commercial uses are located further to the north across Bothell Way. Across a portion of NE 175th Street but south of the Burke Gilman Trail are a commercial use and an office use (parcel 112604-9137, Best Auto Recovery and Upscale Construction). Uses adjacent to the Pioneer Towing property on the east include industrial uses (parcel 112604-9153, a warehouse, and parcel 112604-9158, Custom Industries [a sheltered workshop/light manufacturing facility]); transportation on 68th Avenue NE; and industrial at Plywood Supply to the east across 68th Avenue NE. Rhododendron Park is located to the southeast of the Pioneer Towing property, across both the Sammamish River and 68th Avenue NE. To the south of the Pioneer Towing property is vacant land around the mouth of the Sammamish River. There are single-family and multi-family residential uses located south of the river in the Inglewood neighborhood; however, there is a vegetated buffer located between the river and these structures (Google Maps 2011, King County Department of Assessments 2011, Google Earth 2011). See Exhibit 2-1.

LakePointe Development Property

Existing uses on the portion of the LakePointe Development property outside of the Pioneer Towing property include industrial, commercial, and office uses described above (Best Auto Recovery, Upscale Construction, and Custom Industries). Although the King County Metro Pump Station is within the boundary of the LakePointe Development property, it is not part of the planned LakePointe development (Google Maps 2011, King County Department of Assessments 2011, Google Earth 2011).

Existing uses adjacent to the LakePointe Development property include Kenmore Air Terminal to the northwest; and NE 175th Street and the Burke-Gilman Trail to the north. Bothell Way is located across from the Burke-Gilman Trail, and a variety of small retail uses are located across Bothell Way. To the east of the LakePointe Development property are office (parcel 112604-9118, Strathy Brothers Dairy) and industrial uses (parcel 112604-9153, a warehouse, as mentioned above). Further east, but south of Bothell Way and west of 68th Avenue NE are commercial uses at the corner of NE Bothell Way/Burke-Gilman Trail and 68th Avenue NE (parcel 112604-9011, Do It Yourself Pest Control, Advanced European Service, Tropical Tan, and CarePlus Medical). South of NE 175th Street are an office use (parcel 112604-9114, the Morrison Building) and an office/industrial use (parcel 112604-9121, A &G Property LLC). A transportation use, 68th Avenue NE, is east of the LakePointe Development property. Across 68th Avenue NE is an industrial use (Plywood Supply) (see Exhibit 2-1) (Google Maps 2011, King County Department of Assessments 2011). The southern boundary of

the LakePointe Development property is the same as that of the Pioneer Towing property, and adjacent uses to the south are described above.

Existing Structures on Kenmore Yard Site

There are two existing buildings on the waterfront lot proposed as part of the Kenmore Yard site. One building is an approximately 17,000-square-foot warehouse and the second building is a 1,400-square-foot three-sided shed at the southwest corner of the lot (see Exhibit 2 in Attachment 1).

The inland lot proposed as part of the Kenmore Yard site contains an approximately 7,000-square-foot office building (see Exhibit 2 in Attachment 1). Adjacent to the building is a 25,500-square-foot asphalt-paved parking lot.

The Pioneer Towing and LakePointe Development property include other structures; however, these would not be affected by the proposed use of the Kenmore Yard site.

Land Use Plans and Implementing Regulations

Comprehensive Plan Designations

Under the Kenmore Comprehensive Plan, the Pioneer Towing property, which includes the waterfront lot and the inland lot, is designated Regional Business. According to the Comprehensive Plan, "The purposes of the Regional Business District include to provide for the broadest mix of comparison retail, wholesale, service and recreation/cultural uses, with compatible storage and fabrication uses, serving regional market areas and offering significant employment opportunities" (City of Kenmore 2009). The Regional Business designation also applies to the entire LakePointe Development property, with the exception of the King County Metro Pump Station, which is designated Public/Private Facilities. Regional Business also applies to the areas to the west and east of the LakePointe Development property. To the north, the Public/Private Facilities designation applies to the Burke-Gilman Trail. Opposite NE Bothell Way are areas designated Regional Business and Downtown Commercial. The Regional Business-designated area to the east across 68th Avenue NE has a Special Study Area (Plywood Supply) overlay. The Special Study Area will ultimately be guided by a master plan, although it will retain its Regional Business designation; this area is separate from the LakePointe Development area and the master plan it will ultimately be guided by will be separate from approvals applying to the LakePointe Development property. The area across the Sammamish River to the south is designated Public/Private Facilities, except for two parcels that are designated Residential 6-Units Per Acre (City of Kenmore 2009). See Exhibit 2-1.

Zoning

Under the Kenmore Municipal Code (KMC), the Pioneer Towing property, including the waterfront lot and the inland lot, is zoned Regional Business, consistent with the Comprehensive Plan designation. This zone applies to the LakePointe Development property except for the King County Metro Pump Station, which is zoned Public/Semi-Public. The Regional Business zone also applies to the area to the east of the Pioneer Towing and LakePointe Development property. There is Park,

Golf Course, and Residential 6-Units Per Acre zoning across the Sammamish River to the south (City of Kenmore 2010). See Exhibit 2-1.

Per KMC 18.25.110, existing legal uses as of May 8, 2003, are permitted in the Regional Business zone; this applies to industrial use of the Pioneer Towing property. While site permits for the planned mixed-use residential/commercial LakePointe Development have been approved by the City of Kenmore and are still active today, construction of the planned development has been deferred due to economic conditions. The LakePointe Mixed-Use Master Plan Final EIS recognized that industrial uses would continue on the site until development of the project became feasible.

Shoreline Designation

The current shoreline designation applying to the Pioneer Towing and LakePointe Development property is "Urban;" however, the City of Kenmore is in the process of approving an update to its Shoreline Master Program (Ordinance No. 10.0312 and Ordinance 10-0313) with the Washington Department of Ecology (City of Kenmore 2011). Under the updated regulation the site would be designated "Downtown Waterfront." Although it is assumed that the project will be permitted under the existing regulations, industrial and manufacturing uses are permitted in both the current and proposed designations, subject to certain restrictions.

2.3 Potential Effects

2.3.1 Changes in Operational Effects

With completion of construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project, there would be no use of the Kenmore Yard site in association with the project. Therefore, there would be no operational effects that were not disclosed in the Final EIS and Record of Decision (WSDOT 2011b). The mixed-use LakePointe Development that has been permitted for the larger property would be able to proceed upon completion of the approximately 3-year construction period for the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project.

2.3.2 Changes in Construction Effects

All operations at the Kenmore Yard site, including site preparation activities, concrete casting, and other construction support activities, would typically occur on a single-shift, weekday schedule from Monday through Friday, 7:00 am to 7:00 pm. All work would comply with state and local noise ordinances. Temporary task lighting would be used onsite to illuminate work areas during winter months when little natural light is available at the beginning and end of the work shift. During peak operations, approximately 50 workers per day would occupy the Kenmore Yard site.

The proposed use of the Kenmore Yard site, including site preparation and construction support activities, would result in a temporary increase in activity levels at this site. However, these activities would be consistent with past and current industrial operations at the site and would not require property acquisitions or relocations. The proposed activity levels would be consistent with the existing industrial use of the site and would be compatible with adjacent uses. Therefore, no

additional significant land use, economic, or relocations effects would result beyond those disclosed in the Final EIS and Record of Decision.

2.3.3 Consistency with Applicable Regulations

The proposed activities are consistent with allowable land uses at the site, as defined in the Regional Business designation in the Comprehensive Plan. Proposed development on the site is also generally consistent with its Regional Business zoning; the City of Kenmore will determine, upon receipt of permit applications, whether the proposed activities comply with applicable development standards. The LakePointe Mixed-Use Master Plan Final Environmental Impact Statement envisioned interim industrial use of the site until construction of the proposed mixed-use development commenced, and use of the site as a construction yard is in keeping with that analysis. Both utility work and the barge and wharf activities are allowed uses in the shoreline zone as an accessory to the industrial use.

The proposed industrial use of the Kenmore Yard site for approximately 3 years would not preclude future use of the site as part of the planned and permitted LakePointe Development.

2.4 Mitigation

2.4.1 Operational Mitigation

Because the Kenmore Yard site would not be used in association with operation of the SR 520, I-5 to Medina project or of the Floating Bridge and Landings phase of the project, there would be no changes to operational effects from those described in the Final EIS and Record of Decision. The proposed temporary use would also not preclude future permitted mixed-use development of the Kenmore Yard site, Pioneer Towing property, or LakePointe Development property. Therefore, no additional land use mitigation measures are recommended beyond those committed to in the Record of Decision.

2.4.2 Construction Mitigation

Based on a review of the activities proposed for the Kenmore Yard site, no significant changes in construction effects on land use, economics, and relocations as outlined in the Final EIS and Record of Decision are expected. Therefore, no additional mitigation measures are recommended beyond those committed to in the Record of Decision. See Section 6.7 of the Final EIS and the Record of Decision for measures that will minimize noise during construction.

2.4.3 Negative Effects Remaining after Mitigation

No significant negative land use, economics, and relocations effects are anticipated to result from the proposed use of the Kenmore Yard site; therefore, none would remain after SR 520, I-5 to Medina project mitigation measures are applied.

2.5 Conclusion

Based on a review of the proposed activities at the Kenmore Yard site, no significant operational or construction impacts are identified for the revised project description that were not previously identified in the Final EIS, the 2009 Land Use, Economics, and Relocations Discipline Report, and the 2011 Land Use, Economics, and Relocations Discipline Report Addendum and Errata.

3. Cultural Resources

3.1 Introduction

Proposed changes to the SR 520, I-5 to Medina project that could affect cultural resources were reviewed and compared with previously prepared technical documents, including the Section 106 Technical Report (Elder, Schneyder, Cascella, Stevenson, et al. 2011), the Final Cultural Resources Assessment and Discipline Report (included in Attachment 7 of the *SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement and Final Section 4(f) and 6(f) Evaluations* [Final EIS], WSDOT 2011a), the Programmatic Agreement that was executed in June 2011 and included as Attachment 1 of the *SR 520, I-5 to Medina: Bridge Replacement and HOV Project Record of Decision* (WSDOT 2011b), and the Archaeological Treatment Plan (Elder, Schneyder, and Cascella 2011). Prior to issuance of the project Record of Decision (ROD), the Washington State Department of Transportation (WSDOT), on behalf of the Federal Highway Administration (FHWA), consulted with the Department of Archaeology and Historic Preservation (DAHP), affected tribes, and other consulting parties to develop the project Area of Potential Effect (APE). WSDOT conducted outreach and held regular briefings with DAHP and area tribes between 2008 and the present. Affected tribes were formally invited to participate in the National Environmental Policy Act (NEPA) process and Section 106 consultation in 2007.

The addition of the Kenmore Yard was analyzed for potential impacts on cultural resources. The Kenmore Yard, located on the Pioneer Towing property at 6525 NE 175th Street in Kenmore at the northern tip of Lake Washington (see Exhibit 1 in Attachment 1), would be used for construction activities in support of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project. This reevaluation covers the following changes, which are described in more detail in Attachment 1:

- Use of the Kenmore Yard as a construction support facility for approximately 3 years
- Construction of casting slabs and installation of utilities at the Kenmore Yard

The site includes two areas proposed for use during construction, a waterfront lot and an inland lot, as well as an existing access road that runs adjacent to both lots. The waterfront lot is approximately 14 acres and would be used for casting, storing, and shipping deck panels and fluke anchors. The inland lot is approximately 6 acres, and would be used for general storage, material laydown, and operations. Site improvements would include retrofitting of existing buildings and structures, construction of temporary structures, drainage improvements, utility installation, and construction of casting slabs (see Attachment 1 for further detail).

Detailed design plans depicting the depth of specific ground-disturbing activities at the facility have not been developed; however, preliminary conceptual plans and project descriptions indicate that ground disturbance is not expected to extend deeper than 1.8 meters (6 feet) below the existing surface (Floyd Snider and Anchor QEA 2011a).

Regulatory compliance related to cultural resources for the SR 520: I-5 to Medina Bridge Replacement and HOV Project is governed by a signed Section 106 Programmatic Agreement (PA), which outlines steps for addressing additional effects on historic properties, if any, that result from project changes. WSDOT, on behalf of FHWA, is continuing to consult with DAHP, affected tribes, and PA concurring parties, as appropriate, in accordance with the PA.

The changes to the project and their effects are summarized in Table 3-1. Other proposed changes to project construction as described in Attachment 1 are not expected to affect cultural resources.

Table 3-1. Summary of Cultural Resources Reevaluation

Change in Project Description	Change in Affected Environment	Are there significant new impacts?
Construction of casting slabs and installation of utilities at the Kenmore Yard site and use of Kenmore Yard as a construction support facility for approximately 3 years	The parcel containing the Kenmore Yard site has been added to the SR 520, I-5 to Medina project's APE. No historic properties have been identified within this portion of the project APE.	No. While, construction activities would occur within the area added to the APE, the changes would not result in new impacts on historic properties including archaeological resources. The Kenmore Yard site was submerged prior to the mid-twentieth century, and was filled to allow for industrial use. There is limited potential for archaeological resources within or near the limits of construction.

3.2 Affected Environment

The Final Cultural Resources Assessment and Discipline Report prepared for the Final EIS provides a detailed description of the affected environment for the Lake Washington area (WSDOT 2011a). The project's APE has been revised to include the parcel that encompasses the Kenmore Yard site on the Pioneer Towing property. The following section includes a discussion of the natural setting and historic context for the Kenmore Yard site.

As a commitment in the project's Archaeological Treatment Plan, WSDOT has evaluated all built environment properties constructed prior to 1972 within this portion of the APE. As described below, one building constructed in or before 1972 is located on the property. Built in 1970, it is a masonry office/warehouse, whose form and materials have been highly altered. No historic properties have been identified within this portion of the APE.

Natural Setting

During the late Pleistocene, the area now known as the Pioneer Towing property was subject to erosional and depositional forces imposed by the Puget Lobe of the Cordilleran Ice Sheet. As the Puget Lobe advanced, it carved out the depression that would eventually become Lake Washington. As glacial ice receded from the region, the depression was filled with glacial meltwater, becoming a lake (Diether et al. 1995; Troost and Booth 2008:13). As the lake continued to fill it connected with other water bodies, becoming part of an extensive glacial lake, Lake Bretz (Troost and Booth

2008:13). During this period, the area was deeply submerged under the lake. Once glacial ice receded north of the Olympic Peninsula, the glacial lake drained, and the site became subaerially exposed. Prior to exposure, the Pioneer Towing property area would not have been suitable for human occupation. Across all but the northern margin of the property, glacial deposits are buried under more than 30 feet of fill and Holocene alluvium (AGRA 1996: Figures 3, 4, and 5). North of the northern margin of the inland lot, previous geotechnical investigations identified glacial deposits just below ground surface (AGRA 1996:33–34).

Lake Washington rose during the Holocene, eventually inundating and exposing the property to alluvial deposition. Previous geotechnical research indicates that all of the waterfront lot and all but the northern margin of the inland lot contain deeply buried Holocene lacustrine deposits, comprising fine sediments and peats. The upper interfaces of these deposits are between 3.8 and 7 meters (12.5 and 23 feet) below ground surface, and between 2.9 and 5.9 meters (9.5 and 19.5 feet) thick (AGRA 1996). Since these sediments were deposited during the Holocene, they have the potential to contain buried archaeological deposits.

Prior to the early twentieth century, all of the waterfront lot's ground surface and all but the northern margin of the inland lot were located below the current elevation of the Lake Washington shoreline (Kroll Map Company 1941). By 1969, the ground surface of the entire location was above the current elevation of the Lake Washington shoreline (AGRA 1996: Figure 7; King County Department of Assessments 2011). Previous geotechnical investigations indicate that deep fill deposits extend across the ground surface and range from 3.8 to 7 meters (12.5 to 23 feet) in depth (AGRA 1996: Figures 3, 4, and 5).

Cultural Setting

The discussion of precontact land use in the Pacific Northwest and Puget Sound and the ethnographic context for the Lake Washington area are well documented in the Section 106 Technical Report (Elder, Schneyder, Cascella, Stevenson, et al. 2011) and are not repeated here. A brief history of the Kenmore Yard property is presented below.

Historical Development of the Kenmore Yard/Pioneer Towing Property

Prior to its development, the Kenmore Yard/Pioneer Towing property was largely underwater, as indicated by an "old shoreline" boundary depicted on early maps (Kroll Map Company 1941). Starting in the early twentieth century, the margins of the facility were modified by dredging and channeling in the adjacent Sammamish River and Lake Washington. In 1901, a shingle mill was built just to the northwest of the property. To access the mill, a southwest-to-northeast-oriented channel was dredged along the northwest margin of the property in 1903 (Kenmore Heritage Society 2003:26,162).

The completion of the Montlake Cut in 1916 resulted in a 9-foot drop in the elevation of the Lake Washington shoreline, which moved the Kenmore shoreline 30 feet lakeward and rendered the Sammamish River so shallow that it was no longer navigable to commercial vessels (Kenmore

Heritage Society 2003:46). Between this event and 1971, the channel was dredged and straightened, and the Pioneer Towing property filled to the point that the ground was exposed (King County Department of Assessments 2011; Kroll Map Company 1971). Historic maps and aerial photographs of the vicinity indicate that the eastern portion of the property was filled prior to 1954, but the remainder was filled after 1965 and prior to 1977 (Kroll Map Company 1954; Floyd Snider and Anchor QEA 2011a). Previous research indicates that the filling was primarily conducted between 1965 and 1969, and consisted of house demolition debris from grading associated with the construction of Interstate 5 (Floyd Snider and Anchor QEA 2011a).

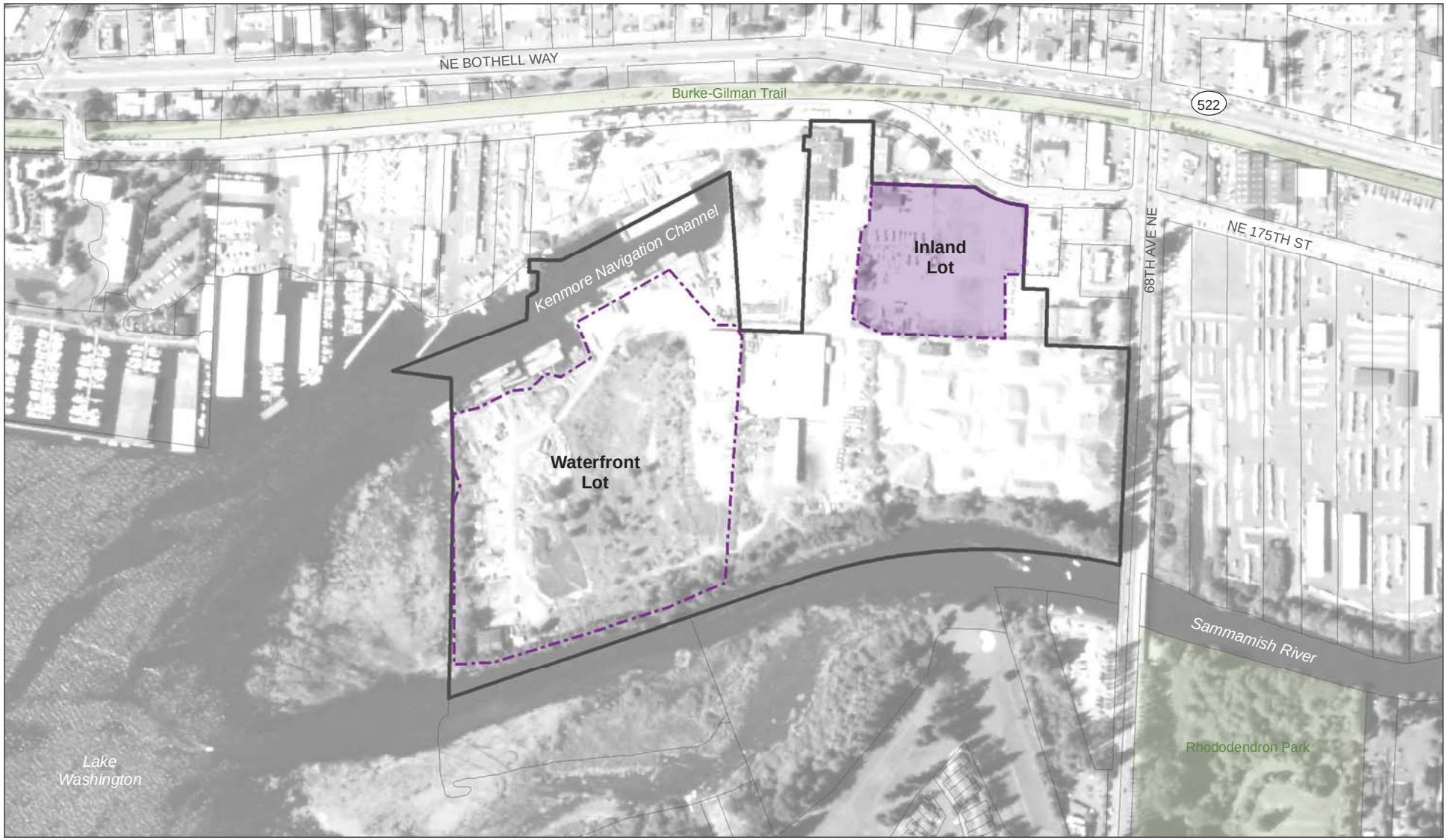
Area of Potential Effects

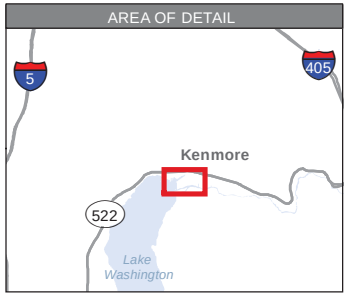
The SR 520, I-5 to Medina: Bridge Replacement and HOV Project APE has been expanded to include the areas that may be directly or indirectly affected by the project. In accordance with 36 Code of Federal Regulations (CFR) Part 800.16(d), the expanded APE includes "the geographic area or areas within which the undertaking may directly or indirectly cause alterations in the character or use of historic properties" (i.e., archaeological sites, traditional cultural properties, and/or built environment resources listed or eligible for listing in the National Register of Historic Places [NRHP]). The expanded APE is part of the Pioneer Towing property and contains the entirety of King County tax parcel 1126049001, which encompasses the waterfront and inland lots, also referred to as the Kenmore Yard site (Exhibit 3-1). The APE parcel boundaries were identified using King County Department of Assessment's data on the online parcel viewer (King County Department of Assessments 2011).

The limits of construction include all potential vertical and horizontal ground disturbance associated with the project. The vertical extent of the limits of construction within the waterfront lot is from existing ground surface to 6 feet below ground surface, which allows for the maximum extent of potential subsurface ground disturbance. Ground disturbance is not expected for the inland lot; however, minor activities such as surface preparation for staging activities are proposed. The vertical extent of the limits of construction within the inland lot is from the existing ground surface to 3 feet below ground surface, to accommodate minor ground disturbance associated with staging activities. Exhibit 3-1 illustrates the area now included in the project APE, including the limits of construction where ground disturbance is expected.

Archaeological Resources

Research and analysis of the landform history, local ethnographic place names, and historical development that has occurred in the vicinity of the Pioneer Towing property suggests that there is limited potential for significant archaeological historic properties within or near the limits of construction. In addition to this research and analysis, a record search was conducted to identify previously documented archaeological and historic resources within the immediate vicinity of the Pioneer Towing property using the Washington Information System for Architectural and Archaeological Records Data (WISAARD), maintained by DAHP.





Area of Potential Effects

Kenmore Yard Site (Waterfront Lot and Inland Lot)/Limits of Construction

Proposed Staging Area/Minor Support Activity

Parcel

Park

N

0 100 200 400 Feet

Source: NAIP (2009) Aerial Photo, King County (2009) GIS Data (Parcels), Critigen (2011) GIS Data (Park and Trails). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.

Exhibit 3-1. **Area of Potential Effects**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project
Kenmore Yard Environmental Reevaluation

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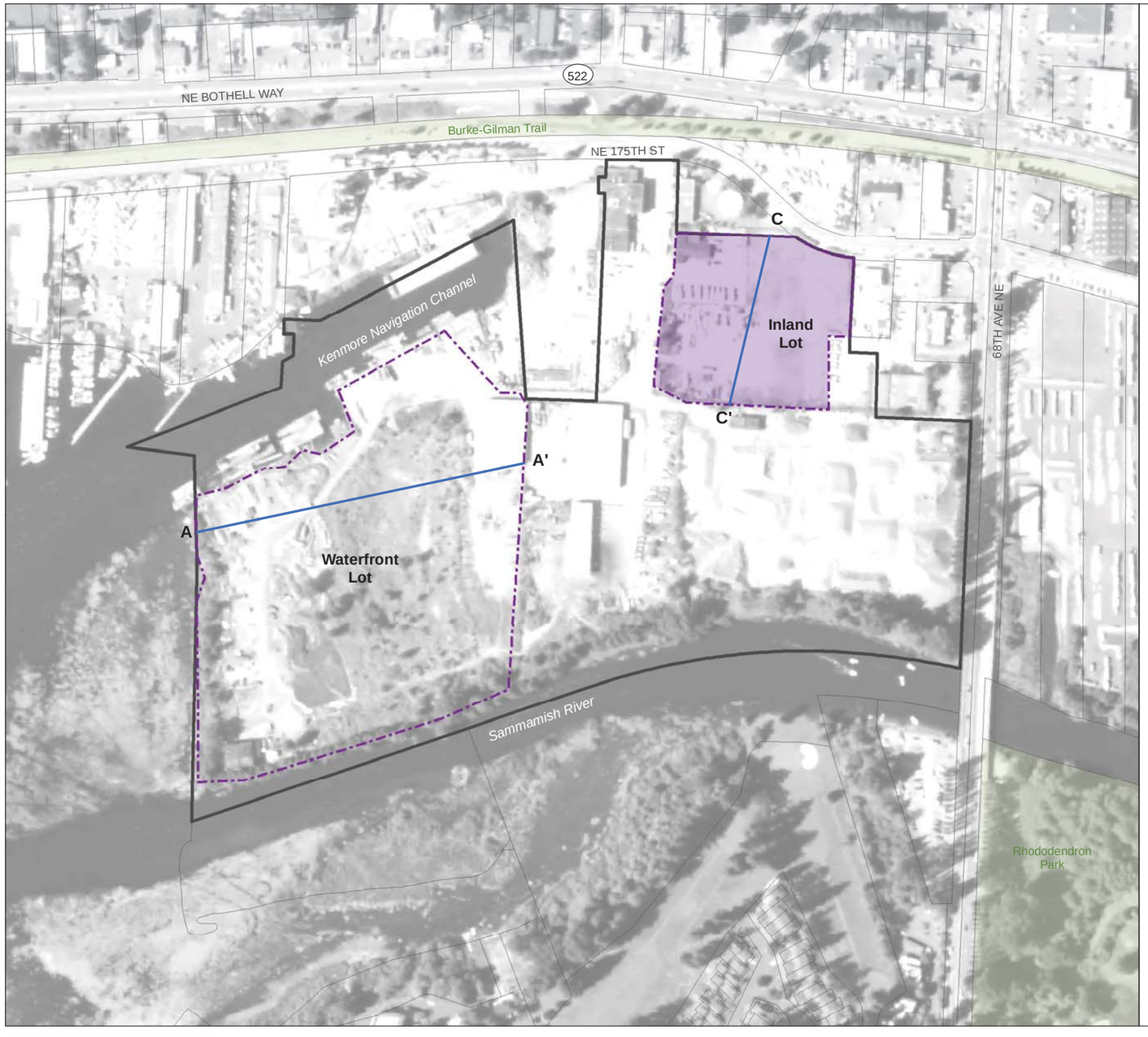
The Pioneer Towing property is located on a submerged, low-energy, nearshore lacustrine landform that has been subject to extensive and widespread filling to create a terrestrial surface during the mid-twentieth century, followed by limited modern industrial and commercial use of the filled area. The upper interface of the low-energy nearshore lacustrine landform is located at or just below the current elevation of Lake Washington (AGRA 1996: Figures 3, 4, and 5). It is likely that this landform would have supported aquatic floral and faunal resources, but no habitable surface, given that prior to the construction of the Montlake Cut, all but the northern margin of the inland lot would have been submerged under Lake Washington. Across all of the waterfront lot and all but the northern margin of the inland lot, fill deposits are between 3.8 and 7 meters (12.5 and 23 feet) in depth, far exceeding the maximum anticipated depth of ground disturbance of 1.8 meters (6 feet) (Exhibit 3-2).

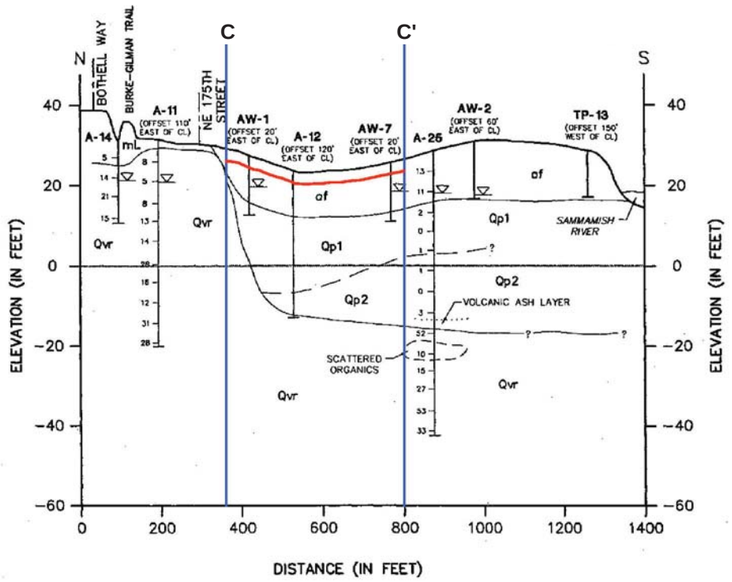
Glacial deposits have been identified less than 0.3 meter (4 feet) below the ground surface 7.6 meters (25 feet) north of the inland lot. However, glacial deposits rapidly increase in depth between NE 175th Street, just north of the property, and the northern margin of the property, and the minimum depth to glacial deposits along the northern margin of the inland lot is estimated to be around 2.4 meters (8 feet) (Exhibit 3-2). Therefore, all proposed ground disturbance would occur in well documented fill sediments with no foreseeable potential for archaeological deposits.

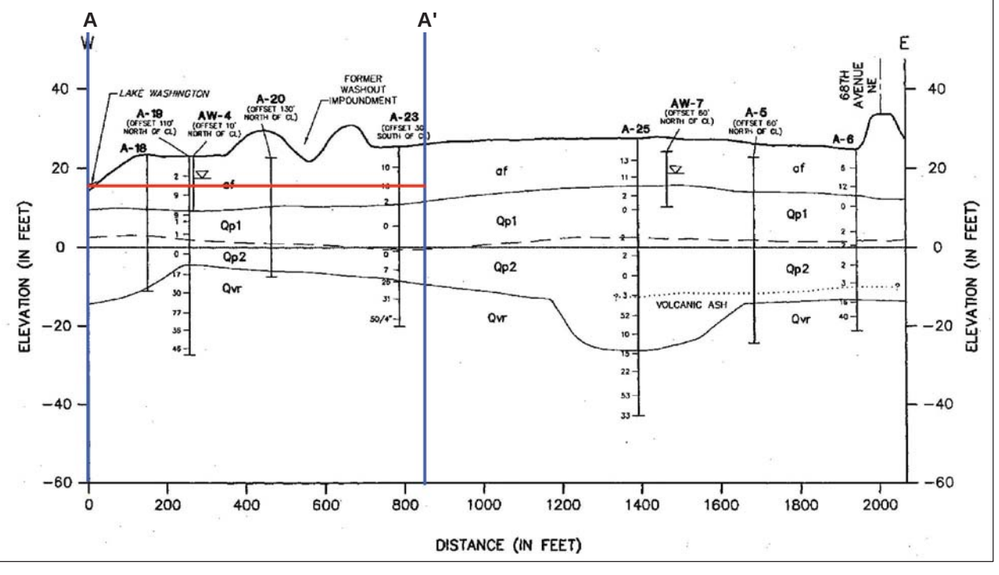
Historic Built Environment Resources

There are no historic properties on the Kenmore Yard site. As described earlier, the parcel containing the two Kenmore Yard site lots has been used as an industrial property since the early 1950s. Most of the property was not used until it was reclaimed between 1965 and the mid-1970s. The King County Assessor's database identified a building constructed in 1970, and it was identified on historic maps and photographs in the far northern area of the parcel. This building is an approximately 27,000-square-foot office and warehouse. It is largely single story, but a portion of the office is two story. The primary building is used as an office and is clad in smooth brick, with symmetrically placed tall, thin windows surrounded by projecting brick surrounds. The second story of the primary façade is clad in horizontal wood boards. The building sits on a concrete foundation and has a flat roof. Attached to the primary office building are two large warehouse bays. Both appear to have been attached subsequent to its original construction. One bay is clad in aggregate concrete siding, and one is clad in unadorned concrete. Both have multiple vehicle openings and are used for vehicle storage and light manufacturing purposes. The form of the building has been highly modified with the attachment of the two warehouse buildings, and the wood cladding on the primary office building does not appear original. It lacks integrity of materials and workmanship, and is not eligible for listing in the NRHP. A Historic Property Inventory (HPI) form is included as Attachment 3, and has also been recorded on DAHP's WISAARD database.

In addition, the King County Assessor's database and an associated HPI form (Artifacts Consulting, Inc. 2011) on the DAHP WISAARD database indicate that a 2,000-square-foot shop/warehouse building dating to 1954 is located on the property. However, no photographs were included on the HPI form or on the Assessor's database, and additional research has revealed that there are no buildings on the property that were built before 1970.







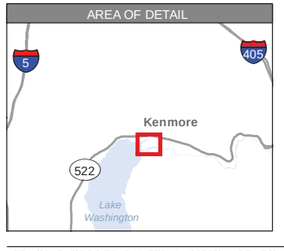
mL - Modified Land
Original topography disturbed by removal of some Pleistocene deposits, grading and artificial fill of unknown quality.

af - Artificial Fill
Original topography modified by placement of significant thickness of artificial fill. Comprises the wood debris fill described in subsurface explorations.

Qp - Peat
Accumulation of organic material (Qp1). Loose alluvium. May contain small amounts of sand, silt, clay, and volcanic ash deposited in swamps and bogs (Qp2)

Qvr - Vashon Recessional Outwash
Light brown, loosely compacted sand and gravel, well-rounded from stream transportation. Sorting varies; particle size varies from medium sand to cobbles, not differentiated from more recent alluvium, which may contain silt, clay, and organic matter.

Qvt - Vashon Till
Poorly sorted, nonstratified lodgement till deposited as ground moraine. Mixture of clay, silt, sand, pebbles, and cobbles with occasional large boulders. Stones are subangular to rounded.



I Geotechnical Boring
Proposed Depth of Ground Disturbance
Cross Section Line
Area of Potential Effects
Kenmore Yard Site (Waterfront Lot and Inland Lot)/Limits of Construction
Proposed Staging Area/Minor Support Activity
Parcel
Park

N
0 100 200 400 Feet

Source: NAIP (2009) Aerial Photo, King County (2009) GIS Data (Parcels), Critigen (2011) GIS Data (Park and Trails), AGRA (1996) Stratigraphic Data. Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.

Exhibit 3-2. **Stratigraphic Profiles for the Kenmore Yard Lots**

SR 520, I-5 to Medina: Bridge Replacement and HOV Project
Kenmore Yard Environmental Reevaluation

This conclusion was made following careful review of the following sources:

- **Aerial photographs from 1965, 1977, and 1985 (Floyd Snider and Anchor QEA 2011a)**: No building is evident on the aerial photograph in 1965. Nearly the entire property, with the exception of the northernmost strip adjacent to NE 175th Street, was undeveloped until at least 1965.
- **Review of historic maps from 1941, 1954, and 1974 (Kroll: 1941, 1954, 1974):** No building is evident on the Kroll maps from these years before 1974, and those that are seen on the 1974 map occupy an area considerably larger than 2,000 square feet.
- **A visual survey of extant buildings on the property conducted by a senior architectural historian meeting Secretary of the Interior's standards**: On October 17, 2011, WSDOT conducted a visual survey of the Pioneer Towing property. No 2,000-square-foot shop/warehouse building was evident on the property. No building that appeared to date to the 1950s or 1960s was observed on the property.
- **Communication with the property owner (October 20, 2011):** According to the property owner, there is no building within the parcel boundary that dates to 1954.

In summary, the 1954 building in question was not identified by the property owner, is not physically evident on the site, and is not evident on the 1965 historic photograph or the 1954 or 1965 Kroll maps. The building in question may have been incorrectly recorded by the King County Department of Assessments. Data for this building's HPI form on DAHP's WISAARD database were generated from King County Assessor's data and were not field-verified. The building location was placed at the center of the parcel, in accordance with the surveyors' methodology, and was not accurately geolocated. Historic photographs and Kroll maps suggest that the building in question could potentially be located on an adjacent parcel to the north of the dredged channel (this parcel is also part of the Pioneer Towing property; see Exhibit 2 in Attachment 1). Aerial photographs and historic Kroll maps show an approximately 40-foot by 60-foot building on the parcel just north of the channel (Parcel 1126049020) (King County Department of Assessments 2011). The building that is evident on the historic maps and photographs is not identified in the Assessor's database. Because this building is outside of the APE, it has not been surveyed and its date of construction has not been confirmed.

A thorough effort was made to identify all potential historic properties within the APE. Based on the historical research, field investigations, and communication with the property owner, there is one building on the property that was constructed prior to 1972: the 1970 office/warehouse, described above. It is not eligible for listing in the NRHP. No other building constructed prior to 1972 was identified on the property. Therefore, no historic properties would be affected within the Kenmore Yard/Pioneer Towing area of the project APE.

3.3 Potential Effects

No additional adverse effects on cultural resources/historic properties would result from the construction or operation of the project within this portion of the project APE.

3.3.1 Changes in Operational Effects

With completion of construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project, there would be no further use of the land within this portion of the APE. Therefore, there would be no operational effects that were not disclosed in the Final EIS and Record of Decision.

3.3.2 Changes in Construction Effects

No known historic properties are located within this portion of the APE, and construction activities are not anticipated to exceed the depth of modern fill. Therefore, the proposed project design change would not result in changes to construction effects different than those described in the Final EIS and Record of Decision.

3.4 Mitigation

3.4.1 Operational Mitigation

Because no impacts are anticipated, no additional cultural resources mitigation measures are recommended beyond those committed to in the Record of Decision.

3.4.2 Construction Mitigation

Because no impacts are anticipated, no additional mitigation measures are recommended beyond those committed to in the Record of Decision.

3.4.3 Negative Effects Remaining after Mitigation

No adverse effects on cultural resources would result from the construction or operation of the project within this portion of the APE, and therefore, there are no effects that are different from those discussed in the Final EIS or that would remain after mitigation and best management practices are implemented.

3.5 Conclusion

No effects would result from the construction or operation of the project within this portion of the APE that were not previously identified in the Final EIS.

4. Ecosystems

4.1 Introduction

Potential ecosystems effects associated with the changes to the project description were evaluated and compared to those reported in Sections 5.10 and 6.10 of the SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement and Final Section 4(f) and 6(f) Evaluations (Final EIS, WSDOT 2011a), the 2009 Ecosystems Discipline Report (in Attachment 7 of the Final EIS), and the 2011 Ecosystems Discipline Report Addendum and Errata (also in Attachment 7). The changes analyzed for effects on ecosystems include the following, which are described in greater detail in Attachment 1:

- Use of the Kenmore Yard as a construction support facility for approximately 3 years
- Construction of casting slabs and installation of utilities at the Kenmore Yard
- Construction of gravity anchors on a barge moored at the Kenmore Yard wharf

The proposed changes to the project and their effects are summarized in Table 4-1. Other changes to project construction as described in Attachment 1 are not expected to affect ecosystems.

Table 4-1. **Summary of Ecosystems Reevaluation**

Change in Project Description	Change in Affected Environment	Are there significant new impacts?
Construction of casting slabs and installation of utilities at the Kenmore Yard, use of the Kenmore Yard as a construction support facility for approximately 3 years, and construction of gravity anchors on a barge moored at the Kenmore Yard wharf	The Kenmore Yard site area has been added to the SR 520, I-5 to Medina project's study area for ecosystems. For wetlands, the study area encompasses land within 200 feet of the site. For wildlife and habitat, the study area encompasses areas within 0.5 mile of the site. For fisheries, Lake Washington, its shoreline habitats, and its fish resources were already included in the project's affected environment; however, additional information has been provided about the Sammamish River, which is adjacent to the site.	No. No wetlands or wildlife habitat would be disturbed. Noise and human activity levels that could affect wildlife would be consistent with existing nearby uses. There would be no in-water work and thus no effect on aquatic substrate. Barge activity would be consistent with existing barge activity and would have no effect on aquatic habitat compared to existing conditions. Use of the Kenmore Yard site would not result in new significant effects on ecosystems.

Site preparation work at the Kenmore Yard site, including the installation of utilities and the construction of the casting slabs at the waterfront lot, would be completed in the center of the waterfront lot, outside of the 200-foot shoreline buffer as designated by the City of Kenmore, except for an electrical utility trench to connect to an existing transformer located within the shoreline buffer (see Attachment 1). Less than 1 acre of ground would be disturbed for this work.

Site preparation activities would comply with all environmental compliance plans required for the SR 520, I-5 to Medina project, including those plans relevant to water resources: a Temporary

Erosion and Sediment Control Plan; a Construction Water Quality Protection and Monitoring Plan; a Spill Prevention, Control, and Countermeasures Plan; a Collection, Containment, and Disposal Plan; a Stormwater Pollution Prevention Plan; and a Soil and Groundwater Management Plan. Stormwater would drain internally, with no direct discharges to Lake Washington. All stormwater management during site preparation would comply with the National Pollutant Discharge Elimination System Construction General Stormwater Permit.

Following completion of site preparation activities, use of the Kenmore Yard site as a construction support facility would involve the construction of pre-cast components of the floating bridge (bridge decking and fluke anchors) on the casting slabs, the construction of gravity anchors on a barge moored at the existing wharf on the waterfront lot, and the use of the inland lot for material storage. Barges would transport materials to the Kenmore Yard and would transport the pre-cast bridge deck components and anchors from the Kenmore Yard to the floating bridge site (see Attachment 1). Stormwater management during use of the Kenmore Yard site would comply with the site owner's discharge permits from the Washington State Department of Ecology. No in-water work would occur at this site.

4.2 Affected Environment

Wetlands

The study area for wetlands encompasses land within 200 feet of the parcel that contains the Kenmore Yard site (see Exhibit 2 in Attachment 1 of this reevaluation; the site consists of the waterfront lot and inland lot). Wetlands have been identified along the shoreline of the waterfront lot, and at the mouth and south shoreline of the Sammamish River. Palustrine scrub-shrub and emergent wetlands are present along the shorelines, and riverine emergent wetlands are present in the river, creating north and south channels (Washington Department of Fish and Wildlife 2011).

Fish Resources

The Kenmore Yard site is located at the north end of Lake Washington and adjacent to the mouth of the Sammamish River (see Exhibits 1 and 2 in Attachment 1). Lake Washington, its shoreline habitats, and fish resources were described in the 2009 Ecosystems Discipline Report and 2011 Ecosystems Discipline Report Addendum and Errata (both included in Attachment 7 of the Final EIS).

The Sammamish River drains the Sammamish River watershed, a major contributor of Water Resource Inventory Area (WRIA) 8. The watershed is composed of approximately 153,600 acres that includes 62,080 acres in the Lake Sammamish basin, 32,000 acres in the Bear Creek basin, and 42,880 acres that are the combined Little Bear Creek, Swamp Creek, and North Creek basins. The remaining 16,640 acres comprise the Sammamish River subbasin.

The Sammamish River is approximately 13.5 miles long. The upper river corridor extends from the Lake Sammamish weir in Marymoor Park in Redmond downstream to the city of Woodinville

through a floodplain valley that is more than a mile wide in places. Land use in this upper reach includes open space, recreational areas, agricultural, and urban development in the cities of Redmond and Woodinville. The lower reach extends from Woodinville to the mouth of the river at Lake Washington. This reach has a much narrower drainage area, which includes the downtown cores of Bothell and Kenmore but also some open space areas, including the Wayne and Inglemoor Country Club golf courses, Bothell parkland, the Sammamish River Trail, and King County-owned parcels at the mouth of Swamp Creek and the mouth of the river.

The Sammamish River is a Class I Stream with a 150-foot buffer from the river channel. There is also a Class 1 wetland adjacent to Lake Washington with a 150-foot buffer, per Kenmore Municipal Code (KMC) 18.55.300.B.1.a.4.

Two salmon-bearing tributary systems are located in the upper reach: Bear Creek and Little Bear Creek. The lower reach includes two large salmon-bearing tributaries: Swamp Creek and North Creek (Kerwin 2001).

Chinook, coho, sockeye, kokanee, steelhead, and coastal cutthroat are salmonid species known to currently inhabit the Sammamish River system (Kerwin 2001). The United States Fish and Wildlife Service identified the river and its tributaries as potential foraging habitat for bull trout on the assumption that they are found in the watershed. Chinook salmon, steelhead, and bull trout are listed species under the federal Endangered Species Act (ESA). There are no state-listed fish species in the project area. The above fish species were described in the Ecosystems discipline reports.

The Sammamish River is on the 2004 Washington State Department of Ecology's (Ecology) 303(d) list of pollution-impaired water bodies for violation of fecal coliform and water temperature standards. The river is also listed for violations of the dissolved oxygen standards; dissolved oxygen levels decrease when the temperatures increase. In addition, high nutrient (phosphorus and nitrogen) concentrations can exacerbate low oxygen conditions by increasing vegetative growth. Decaying vegetation consumes oxygen in the water (King County 2011).

Wildlife and Habitat

The study area for wildlife and habitat encompasses areas within 0.5 mile of the parcel that contains the Kenmore Yard site. Cover types present within 1/4 mile of the site include Urban Matrix, Open Water, and Parks and Other Protected Areas. Urban Matrix is most prevalent, consisting of roadways, parking lots, commercial properties, and residential areas. Almost the entire area of both the waterfront lot and inland lot consists of this cover type, along with nearly all areas within 1/4 mile to the north and east. West and southwest of the site, Lake Washington and the mouth of the Sammamish River constitute the Open Water cover type. Parks and Other Protected Areas are present south of the project area, including the Inglewood Country Club golf course and the City of Kenmore's Rhododendron Park. As noted above, wetlands occur along both banks of the Sammamish River. These habitat types were described in the Final EIS.

No federally listed wildlife species are known or expected to use habitats within or adjacent to the project area. The only state-listed species expected to use habitats in the study area are the bald eagle and peregrine falcon (both state-listed as sensitive), which may forage in the area. In addition, Washington Department of Fish and Wildlife priority species that may occur in the vicinity include western grebe, great blue heron, hooded merganser, wood duck, purple martin, band-tailed pigeon, and pileated woodpecker. These species and their habitats were described in the Final EIS.

No breeding sites or other sensitive areas for priority species have been documented within 1/4 mile of the site. However, purple martins nest at Kenmore Logboom Park, just over 1/4 mile from the waterfront lot. Purple martins are colonially nesting, insectivorous birds. In Washington, most martins have been reported nesting in artificial structures over water near cities and towns in the lowlands. Bald eagles, a state-listed sensitive species, have a nesting territory in the Inglewood area, approximately 0.4 mile south of the waterfront lot, and may perch or forage in the project vicinity. A great blue heron nesting colony is located approximately 0.5 mile northeast of the waterfront lot. Birds from that nesting area likely forage near the Kenmore Yard site.

4.3 Potential Effects

4.3.1 Changes in Operational Effects

After completion of construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project, there would be no use of the Kenmore Yard in association with the project. Therefore, there would be no operational effects that were not disclosed in the Final EIS and Record of Decision (WSDOT 2011b).

4.3.2 Changes in Construction Effects

The following effects analysis is based on the description of changed conditions in Attachment 1. As noted in Attachment 1, maintenance activities at the Kenmore Yard site unrelated to the SR 520 project will be completed by the owner of the Pioneer Towing property to prepare the site for continued industrial use. On the waterfront lot, site preparation activities that would be part of the SR 520, I-5 to Medina project would occur at the center of the lot outside of the 200-foot shoreline setback except for utility installation work that would occur within an existing gravel-surfaced area.

Use of the Kenmore Yard site for construction of precast components for the floating bridge and landings, and associated barge activity, as described in Section 4.1 and Attachment 1, would occur after completion of site preparation activities. In the Final EIS, WSDOT identified the likelihood that some of the bridge decking components and anchors for the SR 520, I-5 to Medina project would be produced at existing industrial sites in the Puget Sound area. Pages 3-43 through 3-45 of the Final EIS described the outfitting of pontoons by building columns and the elevated roadway of the bridge directly on the surface of the pontoons, and noted that outfitting would occur at existing commercial shipping or mooring facilities regularly used by large vessels or barges and would be consistent with the typical operation of these existing facilities. Page 3-45 of the Final EIS described the types of anchors that would be used as part of the floating bridge and stated that they would be

built offsite at an existing industrial facility (outside of Lake Washington) and transported to Lake Washington using barges. As proposed in this reevaluation, some of the bridge decking components and anchors would instead be pre-cast at the Kenmore Yard site before being assembled at the floating bridge site.

Wetlands

There are no wetlands in the area proposed for construction activities on the Kenmore Yard site, and therefore none would be disturbed during utilities installation and construction at the site. All shoreline wetlands would be undisturbed, and other than utility work, construction would not occur within the 200-foot shoreline buffer. The use of the Kenmore Yard site would not change the effects on wetlands as described in the SR 520, I-5 to Medina Final EIS and the ROD.

Fish Resources

Site preparation, including installation of utilities and construction of casting slabs, would be confined to the upland portions of the Kenmore Yard site. All site preparation activities would occur landward of the ordinary high-water mark. Therefore, site preparation activities would have no effects on fish resources.

When the casting slabs are in use for construction of pre-cast structures, all water would be collected on their surface. This water would be considered process water, which would be collected in sumps and pumped to temporary holding tanks on the site. Pretreatment of the collected process water would occur in these temporary holding tanks. Collected process water would be discharged to the City of Kenmore sanitary system. Wastewater discharge permits would be obtained for process water disposal.

As described in Section 4.1 and Attachment 1, gravity anchors would be cast on a barge moored at the wharf. Barge moorage is consistent with historic use of the site and with other nearby industrial facilities. The construction process would be confined to the surface of the barge and would avoid all in-water work. The barge used for this purpose would be completely watertight and constructed to contain all water generated in this operation as well as rainfall. Process water generated on the barge would be pumped to temporary holding tanks on shore, and managed in the same manner as process water generated on the casting slabs. Concrete would be conveyed from the wharf to the adjacent barge using best management practices to prevent spillage or release.

As noted in Section 4.1 and Attachment 1, there would be barge traffic to and from the Kenmore Yard site for offloading support materials and for shipping the pre-fabricated structures to the bridge construction area. Traffic volume would not likely exceed one barge trip per day during the 3-year period when the Kenmore Yard site would be used for the project. This barge activity is consistent with current and historical use of barges at the site and is not expected to measurably affect fish in the transport area.

Compared to the use of offsite industrial facilities in the Puget Sound area as described in the Final EIS, the use of the Kenmore Yard site would reduce project-associated barge traffic through and

slightly improve congestion in the Lake Washington Ship Canal and Hiram Chittenden Locks, and would instead divert this traffic to the north end of Lake Washington (see Section 6, Navigable Waterways, for more details). As noted in the Ecosystems Discipline Report Addendum and Errata and the Final EIS, the Ship Canal is the sole route for salmon migrating between Lake Washington and Puget Sound. The slight reduction in barge traffic through the Ship Canal and diversion to the north end of the lake would have a minor beneficial effect on fish and aquatic habitat compared to the construction methods described in the Final EIS. Overall, effects would be similar to those described in the Ecosystems Discipline Report Addendum and Errata.

Based on a review of the above changes, no new significant construction effects on fish resources are identified for the revised project configuration that were not previously identified in the Ecosystems discipline reports, the Final EIS, and the ROD.

ESA-listed Fish Species

The construction activities proposed for the Kenmore Yard site would not directly affect ESA-listed fish species, as noted above. There would be no new significant construction effects on ESA-listed fish species as a result of the addition of this area to the project.

Wildlife and Habitat

No new additional effects on wildlife habitat would occur as a result of activities at the Kenmore Yard site. No wildlife habitat would be removed as a result of the project. Both industrial (Cal Portland, among others) and commercial (Kenmore Air Harbor) noise sources are in the near vicinity of the Kenmore site. Noise from construction at the Kenmore site would be in the range produced by these nearby sites. There would be no new significant construction effects on wildlife and habitat as a result of the addition of this area to the project.

Federally and State-listed Wildlife Species

No federally listed wildlife species occur in the project area. State-listed species that may forage in the Kenmore Yard vicinity include bald eagle and peregrine falcon. However, levels of noise and human activity in the area are currently high, and additional construction activities in the area are unlikely to significantly affect foraging behavior. The bald eagle nest is over 2,000 feet away from the site and nesting behavior would be unaffected by the project.

The purple martin nesting site at the Kenmore Logboom Park is over 1,500 feet from the Kenmore Yard site. The two sites are also separated by the Kenmore Air Harbor, which generates high noise levels as well as physical obstructions. The additional construction at the Kenmore Yard site is not expected to add to noise effects at the purple martin nest site.

The great blue heron rookery is over 2,500 feet from the Kenmore Yard site with dense commercial use and high traffic volumes in between. However, great blue herons are likely to use the wetlands at the mouth of the Sammamish River for feeding. These areas would not be disturbed by the project. Project noise would be within the range of existing activities and are unlikely to cause additional adverse effects on the herons. In summary, there would be no new significant

construction effects on federal or state-listed wildlife species as a result of the addition of this area to the project.

4.4 Mitigation

4.4.1 Operational Mitigation

Because the Kenmore Yard site would not be used in association with operation of the SR 520, I-5 to Medina project or of the Floating Bridge and Landings phase of the project, there would be no changes to operational effects from those described in the Final EIS and Record of Decision. Therefore, no additional ecosystems mitigation measures are recommended beyond those committed to in the Record of Decision.

4.4.2 Construction Mitigation

No significant changes in construction effects are expected from the ecosystems analysis outlined in the Final EIS and Record of Decision. Therefore, no additional construction mitigation measures are recommended beyond those committed to in the Record of Decision.

4.4.3 Negative Effects Remaining after Mitigation

There would be no negative effects remaining after mitigation and implementation of best management practices similar to the findings in the Final EIS and Record of Decision.

4.5 Conclusion

No significant operational or construction effects are identified for the revised project description that were not previously identified in the Ecosystems discipline reports, the Final EIS, and the Record of Decision.

5. Hazardous Materials

5.1 Introduction

Hazardous materials effects associated with the changes to the project description were evaluated and compared to those reported in Section 6.13 of the SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement and Final Section 4(f) and 6(f) Evaluations (Final EIS, WSDOT 2011a), the 2009 Hazardous Materials Discipline Report (in Attachment 7 of the Final EIS) and the 2011 Hazardous Materials Discipline Report Addendum and Errata (also in Attachment 7). The change that is analyzed for potential hazardous materials effects in this reevaluation is the use of the Kenmore Yard site as a supplemental construction yard for casting of concrete bridge deck panels and anchors, materials staging and storage, barge loading and unloading, and general operations to support the construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project. This reevaluation covers the following changes, which are described in more detail in Attachment 1:

- Construction of casting slabs and installation of utilities at the Kenmore Yard
- Use of the Kenmore Yard as a construction support facility for approximately 3 years

These changes to the project and their effects are summarized in Table 5-1. Other changes to project construction as described in Attachment 1 are not expected to affect hazardous materials.

Table 5-1. Summary of Hazardous Materials Reevaluation

Change in Project Description	Change in Affected Environment	Are there significant new impacts?
Construction of casting slabs and installation of utilities at the Kenmore Yard, and use of the Kenmore Yard site as a construction support facility for approximately 3 years	The Kenmore Yard has been added to the SR 520, I-5 to Medina project's affected environment for hazardous materials.	No. While Kenmore Yard would be considered a known "hazardous material site" where contaminated materials may be encountered, the site would be developed and operated in a manner consistent with the site's Consent Decree from the Department of Ecology. Impacts from hazardous material sites and mitigation measures applying to such sites were fully described in the Final EIS and discipline reports.

5.2 Affected Environment

The Kenmore Yard site is located within the city of Kenmore at the northern end of Lake Washington in King County (see Exhibit 1 in Attachment 1). The Kenmore Yard consists of two areas of operation: a 14-acre waterfront lot and a 6-acre inland lot (see Exhibit 2 in Attachment 1). Both lots are part of a 50-acre industrial property known as the Pioneer Towing property. The Pioneer Towing property consists of several parcels; however, the two lots that make up the Kenmore Yard site are within a single parcel (see Exhibit 2 in Attachment 1).

The Kenmore Yard site and the larger Pioneer Towing property have been used primarily for industrial land uses. In the early 1900s, the southern and western portions of the Pioneer Towing property comprised a shallow, submerged delta. In 1916, the United States Army Corps of Engineers lowered the lake level, and the southern and western portions of the property were reclaimed. Fill materials, including some demolition debris, were placed at the site, resulting in a landfilled peninsula elevated above the former delta environment. By 1969, the entire Pioneer Towing property was filled to its current elevation (Ecology 2001a). The filled area was capped with approximately 1 foot of clean surface soil in the mid-1970s.

Fill records indicate that demolition debris waste, from housing demolition related to the construction of Interstate 5 (I-5), was disposed of at the Pioneer Towing property. Borings drilled onsite during the remedial investigation/feasibility study (Floyd Snider and Anchor QEA 2011a) indicate that the landfilled material is primarily wood, with some concrete, asphalt, and metal debris. The landfill was subsequently graded, covered with soil, and used as an industrial park (Floyd Snider and Anchor QEA 2011a).

Historical operations at the Pioneer Towing property have included small storage and manufacturing industries, sand and gravel staging and support facilities, and associated offices. Pioneer Towing Company is the current owner of the parcel containing the Kenmore Yard site and portions of the parcel are leased to various businesses for industrial uses. The Kenmore Yard site, including both the waterfront and inland lots, has been used for material stockpiling in the recent past but is currently vacant. The southeast portion of the Pioneer Towing property is currently used as a sand and gravel stockpile yard for CalPortland's concrete plant, and the north central portion is used for CalPortland operations (see Exhibit 2-1 in Section 2)

In May 2001, a remedial investigation was completed at the Pioneer Towing property (Floyd Snider and Anchor QEA 2011a). The investigation identified the following environmental issues:

- **Soil:** Petroleum hydrocarbons (diesel and heavy oil) and metals (arsenic, lead, barium, and selenium) are present in the soil at low levels throughout the Pioneer Towing property.
- **Groundwater**: Petroleum hydrocarbons (diesel and heavy oil) and metals (lead, barium, and arsenic) are also present in groundwater in the interior of the Pioneer Towing property; however, concentrations of these substances are currently below regulatory cleanup standards in groundwater at the Pioneer Towing property shoreline (Washington State Department of Ecology 2001a).

In 2001, as a result of these findings, Pioneer Towing entered into a consent decree with the Washington State Department of Ecology (Ecology). The consent decree (Ecology 2001b) and associated Cleanup Action Plan (Ecology 2001c) and subsequent groundwater monitoring conclude that groundwater and soils on the Pioneer Towing property currently are in compliance with cleanup levels appropriate for industrial use. The consent decree allows for continuing industrial use, with the following stipulations: a deed restriction constrains the use of the Pioneer Towing property to industrial use without further cleanup activities; erosion controls must be implemented

and maintained; groundwater monitoring must be conducted; and a Worker Health and Safety Plan must be used by workers who may be excavating into the landfilled material. The consent decree also stipulates that at such time as the property transitions to residential or mixed use, additional cleanup actions will be required.

5.3 Potential Effects

5.3.1 Changes in Operational Effects

After completion of construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project, there will be no use of the Kenmore Yard site in association with the project. Therefore, there would be no operational effects that were not disclosed in the Final EIS (WSDOT 2011a) and Record of Decision (WSDOT 2011b).

5.3.2 Changes in Construction Effects

Because the Kenmore Yard site is a known hazardous materials site, site preparation and construction support activities could have the following potential effects:

- Encountering contaminated soils and groundwater
- Encountering landfill gases that might pose a worker health and safety risk
- Encountering hazardous materials through excavation into landfill materials
- Releasing hazardous materials used at the construction sites into the environment due to accidental release

These hazardous materials effects have previously been identified in similar sites within the project vicinity and described in the Final EIS and hazardous materials discipline reports. However, because the Kenmore Yard site is subject to a consent decree and associated Cleanup Action Plan and Restrictive Covenant, site development activities must be conducted in a manner that is fully consistent with the requirements stipulated in these documents. For example, construction of casting slab foundations and the installation of utilities must be performed in accordance with the Ecology-approved Health and Safety Plan, erosion control measures must be implemented, and existing groundwater monitoring wells must be protected for monitoring by Pioneer Towing. These requirements are designed to minimize risk of encountering or releasing hazardous materials during development of the site or its use as a work yard. Therefore, no new adverse impacts are anticipated as a result of using the Kenmore Yard site to support construction of the SR 520, I-5 to Medina project.

5.4 Mitigation

5.4.1 Operational Mitigation

Because the Kenmore Yard site would not be used in association with operation of the SR 520, I-5 to Medina project or of the Floating Bridge and Landings phase of the project, there would be no changes to operational effects from those described in the Final EIS and Record of Decision. Therefore, no additional hazardous materials mitigation measures are recommended beyond those committed to in the Record of Decision.

5.4.2 Construction Mitigation

Because activities at the Kenmore Yard site would be carried out under the terms of the Consent Decree, no significant new adverse impacts are expected to occur during project construction. Therefore, no additional hazardous materials mitigation measures are recommended beyond those committed to in the Record of Decision. See Section 6.13 of the Final EIS and the Record of Decision.

5.4.3 Negative Effects Remaining after Mitigation

No significant negative hazardous materials effects are expected to result from the proposed use of the Kenmore Yard site; therefore, none would remain after SR 520, I-5 to Medina project mitigation measures are applied.

5.5 Conclusion

No significant operational or construction impacts are identified for the revised project description that were not previously identified in the Final EIS and hazardous materials discipline reports.

6. Navigable Waterways

6.1 Introduction

Navigation effects associated with the changes to the project description were evaluated and compared to those reported in Sections 5.14 and 6.14 of the SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement and Final Section 4(f) and 6(f) Evaluations (Final EIS, WSDOT 2011a), the 2009 Navigable Waterways Discipline Report (in Attachment 7 of the Final EIS), and the 2011 Navigable Waterways Discipline Report Addendum and Errata (also in Attachment 7). The construction change that is analyzed for potential navigation effects in this reevaluation is the use of the Kenmore Yard site as a construction yard for casting of concrete bridge deck panels and anchors, materials staging and storage, barge loading and unloading, and general operations to support the construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project. The changes analyzed for effects on navigable waterways include the following, which are described in more detail in Attachment 1:

- Use of the Kenmore Yard as a construction support facility for approximately 3 years
- Construction of gravity anchors on a barge moored at the Kenmore Yard wharf

The proposed changes would reduce barge traffic to haul precast concrete components to the SR 520 bridge site through the Lake Washington Ship Canal and Hiram Chittenden Locks, and would instead divert some of this traffic to a barge route between the north end of Lake Washington and the SR 520 bridge site. The barge traffic resulting from the Kenmore Yard would use an existing federal navigation channel (Kenmore Navigation Channel) to access the existing wharf from Lake Washington and would average approximately one barge trip per day. These changes to the project and their effects are summarized in Table 6-1. Other changes to project construction as described in Attachment 1 are not expected to affect navigable waterways.

6.2 Affected Environment

The Kenmore Yard site is located within the city of Kenmore at the northern end of Lake Washington in King County (see Exhibit 1 in Attachment 1). The Kenmore Yard consists of two areas of operation: a 14-acre waterfront lot and a 6-acre inland lot (see Exhibit 2 in Attachment 1). The waterfront lot is located adjacent to an existing federal navigation channel (Kenmore Navigation Channel) and has a concrete wharf on the north side abutting the channel. The Kenmore Navigation Channel provides boat access between the existing wharf and Lake Washington. The wharf is located adjacent to, but outside of, the Kenmore Navigation Channel.

Table 6-1. Summary of Navigable Waterways Reevaluation

Change in Project Description	Change in Affected Environment	Are there significant new impacts?
Use of the Kenmore Yard as a construction support facility for approximately 3 years and construction of gravity anchors on a barge moored at the Kenmore Yard wharf	The navigable waters of Lake Washington were part of the affected environment for navigable waterways analysis in the Final EIS. However, baseline activities at the Kenmore Navigation Channel and the Kenmore Yard wharf have been added to the SR 520, I-5 to Medina project's affected environment.	No. The increase in barge traffic in the north end of Lake Washington would average approximately 1 barge trip per day, and would not adversely affect vessel traffic in the north end of Lake Washington. Constructing some bridge components at the Kenmore Yard site would reduce the need to construct some components at Grays Harbor or Tacoma and transport them through the ship canal to Lake Washington. The distance the tug and barges would travel to transport the anchors would be reduced from approximately 90 miles round-trip from Tacoma to approximately 19 miles round-trip.

The Kenmore Navigation Channel is currently used by Island Tug & Barge Company to transport sand and gravel to a CalPortland concrete batch plant that is also located on the Pioneer Towing property, adjacent to the Kenmore Yard site (WSDOT 2004). The Kenmore Navigation Channel has also been used in recent years by Waterfront Construction and Lakeshore Marine Construction. The channel was last maintenance dredged in 1997, and depths are sufficient for existing and proposed uses.

CalPortland receives barge loads of aggregate that originate at DuPont, Washington. Each aggregate barge is 245 feet long by 65 feet wide, with a capacity of 4,500 tons. The peak number of barge trips to and from CalPortland (in 2007) averaged 5 barges per week, while 2010 trips averaged 1.5 barges per week.

Waterfront Construction operated three barges out of the waterfront lot wharf for 20 years, ceasing operations in the second half of 2010. They used the barges to receive materials and transport finished components for marine construction (dock sections, etc.). At peak productivity, all three of Waterfront Construction's barges made at least one round trip daily. In 2007, Waterfront's barges made approximately two round trips per day. Their largest barge was 180 feet by 40 feet, and their smallest was 60 feet by 20 feet (Floyd Snider and Anchor QEA 2011b).

There is a privately owned seaplane base and two designated waterways for seaplane take-off and landings adjacent to the Kenmore Yard site. The waterways are marked with red buoys to note the beginning and end of the runways. Both runways lie adjacent to the Kenmore Navigation Channel. The Kenmore Navigation Channel is also marked with navigational aids. Seaplanes are expected to yield to water vessels as stated in 19 CFR 91.115(a).

6.3 Potential Effects

6.3.1 Changes in Operational Effects

After completion of construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project, there would be no use of the Kenmore Yard in association with the project. Therefore, there would be no operational effects that were not disclosed in the Final EIS and Record of Decision (WSDOT 2011b).

6.3.2 Changes in Construction Effects

WSDOT anticipates that use of the Kenmore Yard site during construction would require approximately one barge trip to and from the Kenmore Yard per day. Some days would have no barge traffic, and there may be some days with two barge trips per day. Barge traffic in excess of two trips per day is not expected. Barges typically servicing the Kenmore Yard would vary from approximately 115 feet by 50 feet, to 250 feet by 75 feet. Occasionally, a wider derrick barge is anticipated to access the Kenmore Yard for short periods.

The barge route between the Kenmore Yard and the SR 520 bridge site is consistent with the route of barge traffic coming to and from the Kenmore Navigation channel in recent years. Similarly, the number of barge trips for activities associated with WSDOT's use of the Kenmore Yard would be consistent with or less than barge operations there in recent years. As noted above, some of these trips replace trips that would otherwise have been made through the Lake Washington Ship Canal; therefore, barge traffic in the ship canal would be reduced compared to that described in the Final EIS. Exhibit 1 in Attachment 1 shows the barge routing associated with the proposed changes.

A Lake Washington Marine Transportation Plan will be prepared that outlines the management of project work related to marine transportation within the waters of Lake Washington. WSDOT has also made commitments for the SR 520, I-5 to Medina project that include tribal fishing coordination and vessel restrictions during sockeye salmon, Chinook salmon, and coho salmon fishing windows.

Compared with the Concrete Technology Corporation site, which was assumed in the Final EIS to be used for anchor production, the distance that tugboats and barges would travel to transport the anchors would be reduced from approximately 90 miles round-trip to approximately 19 miles round-trip. As an example, if three fluke anchors could be transported on one barge, use of the Kenmore Yard for anchor production would result in a reduction of approximately 1,000 total miles traveled by tug and barge to transport 45 fluke anchors. The reduction in distance to transport precast anchor and decking components is expected to slightly improve navigation compared to navigation impacts documented in the Final EIS and Record of Decision. The diversion of some barge traffic from the congested Lake Washington Ship Canal and Hiram Chittenden Locks to the open area of north Lake Washington would reduce congestion in the ship canal and the impacts of shipping on navigable waterways in the Seattle area.

As discussed under Section 6.2, Affected Environment, there is a privately owned seaplane base and two designated waterways for seaplane take-off and landings adjacent to the Kenmore Yard. However, with no more than one barge trip per day, conflict with seaplanes is expected to be minimal.

Based on the above changes, no significant effects on navigation are expected to result from construction activities at the Kenmore Yard site.

6.4 Mitigation

6.4.1 Operational Mitigation

Because the Kenmore Yard site would not be used in association with operation of the SR 520, I-5 to Medina project or of the Floating Bridge and Landings phase of the project, there would be no changes to operational effects from those described in the Final EIS and Record of Decision. Therefore, no navigable waterway mitigation measures are recommended.

6.4.2 Construction Mitigation

Use of the Kenmore Yard is not expected to result in any adverse effects on navigation. Therefore, no mitigation measures for the use of the Kenmore Yard for supplemental concrete casting are recommended.

6.4.3 Negative Effects Remaining after Mitigation

No negative effects on project area navigable waterways would remain after application of the mitigation measures committed to in the Record of Decision.

6.5 Conclusion

No significant operational or construction impacts have been identified for the revised project description that were not previously identified in the Final EIS and Navigable Waterways discipline reports.

7. Environmental Justice

7.1 Introduction

Environmental justice effects associated with the changes to the project description were evaluated and compared to those reported in Sections 5.3 and 6.3 of the SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement and Final Section 4(f) and 6(f) Evaluations (Final EIS, WSDOT 2011a), the 2009 Environmental Justice Discipline Report (in Attachment 7 of the Final EIS), and the 2011 Environmental Justice Discipline Report Addendum and Errata (also in Attachment 7). The construction change that is analyzed for potential environmental justice effects in this reevaluation is the use of the Kenmore Yard site as a construction yard for casting of concrete bridge deck panels and anchors, materials staging and storage, barge loading and unloading, and general operations to support the construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project. The construction activities that are analyzed for potential environmental justice effects (in particular, potential effects on tribal treaty fishing) are as follows (see Attachment 1 for additional detail):

- Use of the Kenmore Yard as a construction support facility for approximately 3 years

This change to the project and its effects are summarized in Table 7-1. Other changes to project construction as described in Attachment 1 are not expected to affect environmental justice.

Table 7-1. **Summary of Environmental Justice Reevaluation**

Change in Project Description	Change in Affected Environment	Are there significant new impacts?
Use of the Kenmore Yard as a construction support facility for approximately 3 years.	None. As discussed in the Final EIS, the Muckleshoot Indian Tribe's usual and accustomed fishing areas within the identified affected environment include all of Lake Washington and the Lake Washington Ship Canal.	No. While there would be less barge traffic coming through the Lake Washington Ship Canal and more barge traffic through north Lake Washington from the Kenmore Yard than evaluated in the Final EIS, this change would not result in new significant impacts on tribal treaty fishing. There are no other changes that would affect low-income, minority, or limited-English-proficient populations.

7.2 Affected Environment

As discussed in the Final EIS, the Muckleshoot Indian Tribe's usual and accustomed fishing areas within the project area include all of Lake Washington and the Lake Washington Ship Canal.

7.3 Potential Effects

7.3.1 Changes in Operational Effects

After completion of construction of the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project, there would be no use of the Kenmore Yard in association with the project. Therefore, there would be no operational effects that were not disclosed in the Final EIS and Record of Decision (WSDOT 2011b).

7.3.2 Changes in Construction Effects

As discussed in Section 6, Navigable Waterways, the addition of the Kenmore Yard as a construction support facility would result in changes to the barge routes discussed in the Final EIS. Because the anchors and bridge decking would be cast at the Kenmore Yard, there would be no need to barge them through the Lake Washington Ship Canal to the SR 520 bridge site. As a result, there would be additional barge traffic from the Kenmore Yard through north Lake Washington to the floating bridge, coupled with a reduction in barge traffic through the Lake Washington Ship Canal.

No in-water construction is associated with the activities to be conducted at the Kenmore Yard.

Barge Activity

When needed at the SR 520 bridge site, precast anchors, bridge decking, and other materials that would be constructed and stored at the Kenmore Yard would be loaded onto barges at the existing wharf for transport. Approximately one barge trip per day to and from the SR 520 bridge site is anticipated. There would be days with no barge travel, and there may be up to two trips in one day on busy days. The proposed barge activity would be within the existing range of barge traffic at the site. There is ongoing barge activity between the CalPortland concrete batch plant site (located adjacent to the Kenmore Yard site on the Pioneer Towing property) and other industrial areas. The peak number of barge trips from CalPortland (in 2007) averaged 5 barges per week, while 2010 trips averaged 1.5 barges per week. Waterfront Construction, which ceased operations at the Pioneer Towing property in 2010, also operated up to three barge trips per day from the property (see Section 6 of this attachment for more information about historical barge operations). A Lake Washington Marine Transportation Plan will be prepared that outlines the management of project work related to marine transportation within the waters of Lake Washington. This plan will minimize the effects of the project on Lake Washington. However, because barge activity to and from the site is not expected to increase significantly from levels seen during the recent past, use of the Kenmore Yard site would not result in additional impacts on access to tribal fishing areas.

Gravity Anchor Casting on Barges

Between approximately February and June 2012, WSDOT would cast gravity anchors on a barge moored at the wharf. This construction process would be confined to the barge and would avoid all in-water work. Because of the weight of the anchors, they cannot be cast on land and lifted across the wharf. The barge used for this purpose would be completely watertight and constructed to

contain all water generated in this operation as well as rainfall. Process water generated on the barge would be pumped to temporary holding tanks on shore, and managed in the same manner as process water generated on the casting slabs. Concrete would be conveyed from the wharf to the adjacent barge using best management practices (BMPs) to prevent spillage or release, avoiding potential impacts on water quality and fish. Once the gravity anchors have cured on the barge, the barge would be transported to the SR 520 bridge site for anchor placement. This barge movement would occur approximately once every 2 weeks.

Although the barge route differs from that described in the Final EIS, the overall amount of barge traffic would be the same as with the Preferred Alternative, and the ability of tribal fishers to access areas for fishing would be similar to what was described in the Final EIS and Record of Decision. The use of barges within existing navigational channels is not expected to adversely affect fish habitat in Lake Washington. There are no other changes that would affect low-income, minority, or limited-English proficient populations. Based on this information, the environmental justice determination as described in the Final EIS and Record of Decision would not change.

7.4 Mitigation

7.4.1 Operational Mitigation

Because the Kenmore Yard site would not be used in association with operation of the SR 520, I-5 to Medina project or of the Floating Bridge and Landings phase of the project, there would be no changes to operational effects from those described in the Final EIS and Record of Decision. Therefore, no additional mitigation measures are recommended beyond those committed to in the Record of Decision.

7.4.2 Construction Mitigation

As described in Section 4, Ecosystems, Section 6, Navigable Waterways, and Section 7.3 above, there would be no new significant effects on fish resources, navigation, or access to tribal fishing as a result of the use of the Kenmore Yard site and associated barge activity. Therefore, there would be no changes in effects on tribal fishing. There are no other changes that would affect low-income, minority, or limited-English proficient populations. Therefore, no additional environmental justice mitigation measures are recommended beyond those committed to in the Record of Decision.

7.4.3 Negative Effects Remaining after Mitigation

There would be no new negative effects after mitigation as a result of use of the Kenmore Yard.

7.5 Conclusion

No significant operational or construction impacts have been identified for the revised project description that were not previously identified in the Final EIS and Environmental Justice discipline reports.

8. Cumulative Effects

8.1 Introduction

This analysis summarizes the cumulative effects that may result from the recent changes in design and construction techniques and activities for the Floating Bridge and Landings phase of the SR 520, I-5 to Medina project. Cumulative effects of the project were evaluated in Chapter 7 of the SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement and Final Section 4(f) and 6(f) Evaluations (Final EIS; WSDOT 2011a) and the 2011 Final Indirect and Cumulative Impacts Discipline Report (in Attachment 7 of the Final EIS). The construction techniques that were analyzed for potential cumulative effects are as follows (see Attachment 1 for additional detail):

- Use of the Kenmore Yard as a construction support facility for approximately 3 years
- Construction of casting slabs and installation of utilities at the Kenmore Yard
- Construction of gravity anchors on a barge moored at the Kenmore Yard wharf

These changes to the project and their potential cumulative effects are summarized in Table 8-1.

Table 8-1. **Summary of Cumulative Effects Reevaluation**

Change in Project Description	Change in Affected Environment	Are there significant new impacts?
Use of the Kenmore Yard as a construction support facility for approximately 3 years, construction of casting slabs and installation of utilities at the Kenmore Yard, and construction of gravity anchors on a barge moored at the Kenmore Yard wharf	None. The study area evaluated in the Final EIS included the central Puget Sound region, which includes King, Kitsap, Pierce, and Snohomish counties.	No. While there would be less barge traffic coming through the Lake Washington Ship Canal and more barge traffic through the north end of Lake Washington from the Kenmore Yard than evaluated in the Final EIS, this change would not result in new significant cumulative impacts. Additionally, while there would be an industrial use on a portion of the Pioneer Towing property for approximately 3 years, this change would not result in a new significant cumulative impact.

8.2 Study Area

The cumulative effects study area and timeframe would not change from those evaluated in the Final EIS. The study area evaluated in the Final EIS included the central Puget Sound region, which includes King, Kitsap, Pierce, and Snohomish counties. The cumulative effects analysis timeframe begins in the mid-19th century, when the central Puget Sound region began to be altered by non-indigenous settlers, and ends in the year 2030, the project design year.

8.3 Potential Changes in Cumulative Effects

In this reevaluation of potential cumulative effects, in addition to the proposed changes described in this environmental reevaluation, WSDOT considered the design and construction changes proposed for the SR 520, I-5 to Medina project that are evaluated in the Floating Bridge and Landings SEPA Addendum (WSDOT 2011c) and a forthcoming NEPA Environmental Reevaluation.

Those changes would occur concurrent with the proposed use of the Kenmore Yard site, and include the following:

- Use of four columns to support the east approach structure
- Modifications to the structure along the low-rise portion of the bridge
- Use of four drilled shafts to support Pier 36
- Modifications to the bridge maintenance facility
- Use of segmental bridge construction techniques
- Use of a temporary Eastside over-water staging area to outfit pontoons and assemble bridge elements
- Revised floating bridge assembly

Land Use

While the proposed change would result in the industrial use of a portion of the Pioneer Towing property for approximately 3 years, this would not change the long-term plan for mixed-use residential/commercial development on this property as described in Attachment 1. The future mixed-use development has been approved by the City of Kenmore and is consistent with the property's zoning and the City's long-range plans. The proposed change to the SR 520, I-5 to Medina project would not affect that approval, nor would it affect long-range use of the property. Therefore, the proposed industrial use of the Kenmore Yard site for approximately 3 years would not contribute to a long-term or regional change in land use patterns.

Environmental Justice

While there would be less barge traffic coming through the Lake Washington Ship Canal and more barge traffic through the north end of Lake Washington from the Kenmore Yard than evaluated in the Final EIS, this change would not result in new significant cumulative impacts on tribal fishing. There are no other proposed changes that would affect low-income, minority, or limited-English proficient populations; therefore, there would be no changes in cumulative effects on these populations. See Section 7 for additional information.

Other Resources

The proposed design and construction changes are not expected to add to the incremental effect of the SR 520, I-5 to Medina project considered together with other past, present, and reasonably foreseeable actions on other resources within the cumulative effects study areas as identified in the Final EIS. The cumulative effects would be as described in Final EIS Chapter 7.

8.4 Mitigation

Based on a review of the above changes in design and construction, the cumulative effects described in the Final EIS and Record of Decision (WSDOT 2011b) are not expected to change measurably. Therefore, no additional mitigation measures are recommended beyond those committed to in the Record of Decision.

8.5 Conclusion

No significant cumulative effects have been identified for the revised project description that were not previously identified in the Final EIS and the Final Indirect and Cumulative Impacts Discipline Report.

9. References

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Attachment 3 - Historic Property Inventory Form

Historic Inventory Report

Location

Field Site No. Kenmore 1 DAHP No.

Historic Name:

Common Name: LakePointe Inc

Property Address: 6525 NE 175th Street, Kenmore, WA 98028

Comments:

Tax No./Parcel No. 112604-9001

Plat/Block/Lot LOT A KENMORE BLA #BLA2003-110 REC #20040318900001 SD BLA BEING POR GL 1 & 2 & 5 STR 11-26-4 TGW 2ND CL SH LDS LY SLY OF NE 175TH ST

Acreage 44.10

Supplemental Map(s)

Township/Range/EW	Section	1/4 Sec	1/4 1/4 Sec	County	Quadrangle
T26R04E	11			King	EDMONDS EAST

Coordinate Reference

Easting: 1209037

Northing: 888992

Projection: Washington State Plane South

Datum: HARN (feet)

Identification

Survey Name: SR 520 Kenmore Yard Date Recorded: 10/27/2011

Field Recorder: C. Gray

Owner's Name: Olympic Forest Products

Owner Address: 6525 NE 175TH ST

City: Kenmore State: WA Zip: 98028

Classification: Building

Resource Status: Comments:
Survey/Inventory

Within a District? No

Contributing?

National Register:

Local District:

National Register District/Thematic Nomination Name:

Eligibility Status: Not Determined - SHPO

Determination Date: 1/1/0001

Determination Comments:

Description

Historic Use: Commerce/Trade - Warehouse
Current Use: Commerce/Trade - Warehouse
Plan: Irregular
Stories: 1-2
Structural System: Braced Frame
Changes to Plan: Extensive
Changes to Interior: Unknown
Changes to Original Cladding: Moderate
Changes to Windows: Slight
Changes to Other: Unknown
Other (specify):

Style:	Cladding:	Roof Type:	Roof Material:
Other - Industrial	Concrete	Varied Roof Lines	Asphalt / Composition
Commercial	Brick	Flat with Parapet	
	Stone - Rubble		

Foundation:	Form/Type:
Concrete - Poured	Industrial

Narrative

Study Unit
Other
Manufacturing/Industry

Date of Construction: 1970 Built Date
Builder:
Engineer:
Architect:

Property appears to meet criteria for the National Register of Historic Places: No
Property is located in a potential historic district (National and/or local): No
Property potentially contributes to a historic district (National and/or local):

Statement of Significance:

Prior to its development, the LakePointe property was largely underwater, as indicated by an "old shoreline" boundary depicted on early maps (Kroll Map Company 1941). Starting in the early twentieth century, the margins of the facility were modified by dredging and channeling in the adjacent Sammamish River and Lake Washington. In 1901, a shingle mill was built just to the northwest of the property. To access the mill, a southwest-to-northeast-oriented channel was dredged along the northwest margin of the property in 1903 (Kenmore Heritage Society 2003:26,162). The completion of the Montlake Cut in 1916 resulted in a 9-foot drop in the elevation of the Lake Washington shoreline, which moved the Kenmore shoreline 30 feet lakeward and rendered the Sammamish River so shallow that it was no longer navigable to commercial vessels (Kenmore Heritage Society 2003:46). Between this event and 1971, the channel was dredged and straightened, and the LakePointe property filled to the point that the ground was exposed (King County Department of Assessments 2011; Kroll Map Company 1971). Historic maps and aerial photographs of the vicinity indicate that the eastern portion of the property was filled prior to 1954, but the remainder was filled after 1965 and prior to 1977 (Kroll Map Company 1954; AMEC 2001). Previous research indicates that the filling was primarily conducted between 1965 and 1969, and consisted of house demolition debris from grading associated with the construction of Interstate 5 (AMEC 2001).

Although the surrounding areas were developed as a residential and commercial community (Kroll Map Company 1941, 1947, 1954; Works Progress Administration 1939), the first building on the property does not appear until 1963, at 17455 68th Avenue NE, in the northeast corner of the inland lot (King County Department of Assessments 2011; Kroll Map Company 1974). All other buildings located on the property were built in the 1970s or more recently (King County Department of Assessments 2011).

The 1970 warehouse/office building is not recommended eligible for listing in the National Register of Historic Places. Its integrity of workmanship and materials has been compromised by the addition of two large warehouses and vehicle bays. The second story cladding of the primary office building also appears to be unoriginal. The building and site is an unremarkable example of late 20th century industrial/office design.

Description of Physical Appearance:

This building is an approximately 27,000 square foot office and warehouse. It is largely single story, but a portion of the office is two story. The primary building is used as an office, and is clad in smooth brick, with symmetrically placed tall, thin single-light windows surrounded by projecting brick surrounds on the first story and wood surrounds on the second story windows. There are two office entrances, both set flush against the brick wall: one on the north end of the east facade and one on the west end of the north facade. The second story of the primary façade is clad in horizontal wood boards. Between the first and second stories is a hipped roof parapet clad with wood planks. The roofline also sees a projecting flat roof parapet clad in the same wood planks as the second story exterior siding. The L shaped building has a wing that is single story, but with a repeating window/surround pattern to match the two story wing. The building sits on a concrete foundation and has a flat roof. Attached to the primary office building are two large warehouse bays. Both appear to have been attached subsequent to its original construction. One bay is clad in aggregate concrete siding, and one is clad in unadorned concrete. Both have multiple vehicle openings and are used for vehicle storage and light manufacturing purposes. The form of the building has been highly modified with the attachment of the two warehouse buildings, and the wood cladding on the primary office building does not appear original. The second story of the office building may have been added after its original construction.

Major Bibliographic References:

Photos

Primary office building, looking NW.
2011

Primary office building and attached warehouse, looking east.
2011

Primary office building and attached warehouse, looking southeast.
2011

Warehouses attached to office building, looking west.
2011

Primary office building, looking SE.
2011