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

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 (EIS), approved by FHWA and WSDOT on May 26, 2011.
2) SR 520, I-5 to Medina: Bridge Replacement and HOV Project Record of Decision (ROD), approved by FHWA and WSDOT on August 4, 2011.
3) SR 520, I-5 to Medina: Bridge Replacement and HOV Project SEPA Addendum (Public Place Designation), approved by WSDOT on October 3, 2011.
4) SR 520, I-5 to Medina: Bridge Replacement and HOV Project SEPA Addendum (Floating Bridge and Landings), approved by WSDOT on November 18, 2011.
5) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (Kenmore Yard), approved by FHWA and WSDOT on December 8, 2011.
6) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA Environmental Reevaluation (Floating Bridge and Landings), approved by FHWA and WSDOT on January 25, 2012.
7) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (Kenmore Yard Update), approved by FHWA and WSDOT on July 16, 2012.
8) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (Floating Bridge and Landings Proposed Final Design Features), approved by FHWA and WSDOT on October 22, 2012.
9) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (Temporary Westside Over-water Staging Area), approved by FHWA and WSDOT on February 1, 2013.
10) SR 520, I-5 to Medina: Bridge Replacement and HOV Project NEPA/SEPA Environmental Reevaluation (West Connection Bridge), approved by FHWA and WSDOT on February 1, 2013.

REASON FOR CONSULTATION:

In this reevaluation, FHWA and WSDOT are evaluating how proposed refinements to the demolition plan for the existing SR 520 floating bridge would affect the natural and built environment and whether those effects differ from the effects described in the FEIS, ROD, and subsequent environmental reevaluations.

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

Refinements to the demolition plan include:

1) Removal of approach span concrete column piles two feet below the lake bed.
2) Demolition of transition piers and footings utilizing a hoe ram for in-water demolition.
3) Potential use of the Kenmore Yard to unload barges carrying demolition materials and for demolition activities.
4) Use of the Westside Staging Area as a staging area during demolition.

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 and Endangered Species: WSDOT reinitiated Endangered Species Act consultation with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) regarding the proposed changes to in-water work and the use of the Westside Staging Area during demolition. The proposed changes were documented under formal reinitiation submitted to NMFS and USFWS in November 2015 and approved by USFWS on February 11, 2016 and by NMFS on February 19, 2016.

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

The public has expressed concern regarding an increased level or frequency of activities and changed conditions at the Kenmore Yard and within the Kenmore Navigation Channel.

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	( )	(x)	11) VEGETATION and WILDLIFE	( )	(x)
(business or residence)			12) RECREATION	( )	(x)
6) ECONOMIC GROWTH and DEVELOPMENT	( )	(x)	13) SOCIAL IMPACTS	( )	(x)

COMMENTS:

This reevaluation does not change the overall impacts that were discussed in the previously prepared project documents listed at the top of this form.

CONCLUSIONS and/ or RECOMMENDATIONS:

Changes as noted above 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 May 2011 and the ROD was approved in August 2011.

I concur with the conclusions and recommendations above

Region / Mode Official

Jon MACGREGOR KUCHARSKI

Date

4/20/16

FHWA Official

Anthony Farham

Date

4/20/16

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;
SEPA Addendum: Floating Bridge and Landings, approved November 18, 2011;
NEPA/SEPA Environmental Reevaluation: Kenmore Yard, approved December 8, 2011;
NEPA Environmental Reevaluation: Floating Bridge and Landings, approved January 25, 2012;
NEPA/SEPA Environmental Reevaluation: Temporary Westside Over-water Staging Area, approved February 1, 2013; and,
NEPA/SEPA Environmental Reevaluation: West Connection Bridge, approved February 1, 2013.

Description of Changed Conditions

As outlined in the June 2011 FEIS, the demolition of the existing SR-520 Floating Bridge would include the following steps:

- Transition span removal
- Elevated floating bridge superstructure removal
- Pontoon removal
- Anchor cable removal and decommissioning
- Approach structure removal

Since issuance of the FEIS, the demolition plan for the floating bridge has been refined to include the following key work elements that were not evaluated in the FEIS:

- *Removal of approach span concrete column piles two feet below the lake bed.* A total of 54 columns from the west approach and 12 columns from the east approach will be removed from the lake. As required by permit conditions, the columns would be removed at least two feet below the lake bed. Native material would be excavated around the base of each column, side-cast approximately 50 feet away, and then relocated to its original position once the columns are removed.
- *Demolition of transition piers and footings utilizing a hoe ram for in-water demolition.* There is a transition pier at the end of both the east and west approaches, which consist of two solid, 9 foot by 9 foot concrete columns on concrete footings. Demolition will require the use of a hoe ram to rubblize the concrete. Barges with crane mats would be positioned around the pier to contain construction debris or material so it does not enter the lake. The concrete rubblized in the water would be removed using a derrick crane and clamshell bucket. All of the demolition debris would be hauled offsite by barge for disposal. The transition piers are located at pier bent 40 in the west approach and pier bent 41 in the east approach. This work is proposed to occur from July 2016 through September 2016. See more detail related to construction timing below.

- *Potential use of the Kenmore Yard to unload barges carrying demolition materials and for demolition activities.* Materials collected during demolition, including span column piles, concrete from transition piers, girders, crossbeams, and other debris collected during demolition, could be transported via barge to the Kenmore Yard. At the Kenmore Yard, the materials would be stockpiled, further demolished and rubblized, or loaded onto trucks for upland disposal. It is anticipated that an average of approximately 1 to 2 barge trips could occur per week, with a peak of 5 to 6 barge trips per week. They would travel from the demolition site to the Kenmore Yard through Lake Washington and the Kenmore Navigation Channel.
- *Use of the Westside Staging Area as a staging area for demolition.* The Westside Staging Area would be used for storing pontoons, barges, and derricks during bridge demolition activities. It would be used throughout the duration of demolition, which is anticipated to continue through February 2017.

This reevaluation describes how the proposed refinements to the demolition plan would affect the natural and built environment and whether those effects differ from the effects described in the FEIS, ROD, and subsequent environmental reevaluations.

Discipline Specific Analysis of Effects

In-Water Work Refinements

The environmental impacts associated with the demolition of the existing SR-520 floating bridge were previously evaluated in the FEIS. The proposed demolition activities are not expected to result in new or significant adverse environmental effects not previously described.

Water Resources

Removal of the approach span column piles two feet below the lake bed and demolition of transition piers and footings would not result in new or significant adverse environmental effects on water quality outside of those described in the FEIS. The primary concern during demolition activities would be the generation of turbidity; however, as described in the FEIS, implementation of BMPs would minimize potential effects of any turbidity resulting from construction activities. Construction would not adversely affect overall water quality within Lake Washington and no new or significant adverse environmental effects are anticipated.

Biological Resources

The proposed in-water work has the potential to cause effects to listed species not previously considered during consultation with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS); therefore, reinitiation of formal consultation was required. The proposed changes do not represent any new mechanisms of effect not previously considered; however, the changes would result in a change to the timing and duration of authorized take. The proposed column and transition pier demolition would result in potential turbidity effects occurring two weeks earlier (i.e., the original authorization was for September 1, 2016 and will now occur on August 15, 2016) than the previously authorized work times. The proposed use of a hoe ram for transition pier demolition may also result in effects from elevated underwater sound levels not previously considered. The proposed changes would represent a minor change to the overall amount and extent of take

authorized for Puget Sound Chinook, Puget Sound steelhead, and Coastal-Puget Sound bull trout. The proposed changes were documented under formal reinitiation submitted to NMFS and USFWS in November 2015 and approved by USFWS on February 11, 2016 and by NMFS on February 19, 2016. No other changes to the impacts on biological resources are anticipated outside of those described in the FEIS. A WSDOT biologist has reviewed and concurred with this analysis.

Noise

Although demolition of transition piers and footings utilizing a hoe ram may result in elevated underwater noise levels with the potential to impact listed species, noise levels experienced by people living and working near the demolition site are not anticipated to exceed those described in the FEIS. Use of the hoe ram will produce elevated noise levels for approximately 4 hours each construction day during an approximately 20 day period and the noise levels produced would be similar or less than those described in the FEIS. The contractor will comply with all local noise ordinances during demolition activities. No night work is currently planned for these activities.

Environmental Justice

All of Lake Washington is included in the Muckleshoot Indian Tribe's (MIT) usual and accustomed fishing areas. In-water work associated with proposed demolition could interfere with tribal fishing activities by temporarily interrupting access and vessels for MIT fishers. FHWA and WSDOT will continue to coordinate with the MIT regarding in-water work. FHWA and WSDOT will provide the MIT with a general schedule and plan prior to the start of demolition and provide notification of any barge movements outside of the limits of construction. This coordination will allow tribal concerns to be properly considered and addressed. This commitment regarding continued coordination is documented in the Final EIS and has been maintained throughout the consultation process. FHWA and WSDOT do not expect any additional impacts on tribal fishing to result from the proposed changes. There are no other changes that would affect low-income, minority, or limited-English proficient populations. The environmental justice determination as described in the Final EIS would not change.

Navigation

Navigation would be restricted in the immediate area around the existing floating bridge during demolition activities. WSDOT would continue to coordinate with the U.S. Coast Guard to alert local commercial and recreational boating communities about demolition activities. No restrictions to access to navigation channels under the newly constructed floating bridge are anticipated. Potential impacts to navigation from barge traffic associated with demolition activities are discussed in Section 3.2, Kenmore Yard, below.

Transportation

No transportation resources would be impacted by the proposed in-water work. The impacts described in the FEIS would not change.

Section 4(f) Resources

No Section 4(f) resources would be impacted by the proposed in-water work; therefore, no impacts are anticipated.

Cultural Resources

No impacts to cultural resources are anticipated as the refinements to the demolition plan are within the project's previously evaluated limits of construction and do not result in new or different effects to known cultural resources. A WSDOT Cultural Resources Specialist has reviewed the proposed demolition plan refinements and determined that no additional Section 106 consultation is required.

Kenmore Yard

The environmental impacts of using the Kenmore Yard to unload barges were previously evaluated in December 2011 and July 2012 NEPA/SEPA re-evaluations. The proposed use of the Kenmore Yard to unload barges carrying demolished bridge materials is not expected to result in new or significant adverse environmental effects that have not been previously described.

Water Resources

Stormwater at the Kenmore Yard is contained through the use of onsite stormwater ponds and berms that contain water within the site, preventing unauthorized discharge of water. Propeller wash from tugboats that move the barges has the potential to disrupt sediments on the bottom of the Kenmore Navigation Channel. As outlined in the Kenmore Yard Reevaluations, best management practices (BMPs) would be implemented to minimize the generation of turbidity. The additional barges would be consistent with the industrial and commercial use of the channel. Therefore, no new or significant adverse environmental effects on water quality are anticipated outside of those described in the FEIS or the Kenmore Yard Reevaluations.

Biological Resources

Vessel activity in the Kenmore Navigation Channel is not anticipated to affect listed fish species or other biological resources. As outlined under Water Resources, WSDOT would implement best management practices to minimize the generation of turbidity during barge operations; therefore, no new or significant adverse environmental effects on biological resources are anticipated outside of those described in the FEIS or the Kenmore Yard Reevaluations. A WSDOT biologist has reviewed and concurred with this analysis.

Noise

Potential use of the Kenmore Yard would not require new construction or modification to the existing site; therefore, there would be no construction related noise effects. There would be noise generated by demolition of materials at the Kenmore Yard; however, the effects would be limited as levels of noise and human activity in the area are currently high; there would be no night work; and the contractor would comply with all local noise ordinances. Barge activity would not generate high noise levels; therefore, the use of the Kenmore Yard for delivery of demolition materials via barge would not generate new or significant adverse environmental effects.

Environmental Justice

All of Lake Washington is included in the Muckleshoot Indian Tribe's (MIT) usual and accustomed fishing areas. Barge movements associated with the proposed demolition could interfere with tribal fishing activities by temporarily interrupting access and vessels for MIT

fishers. FHWA and WSDOT will continue to coordinate with the MIT regarding barge activity. FHWA and WSDOT will provide the MIT with a general schedule and plan prior to the start of demolition and provide notification of barge movements outside of the limits of construction. This coordination will allow tribal concerns to be properly considered and addressed. This commitment regarding continued coordination is documented in the Final EIS and Kenmore Yard Reevaluations and has been maintained throughout consultation. Due to the minor increase in barge traffic and continued coordination with MIT, FHWA and WSDOT do not expect any additional impacts to tribal fishing. There are no other changes that would affect low-income, minority, or limited-English proficient populations. The environmental justice determination as described in the Final EIS and the Kenmore Yard Reevaluations would not change.

Navigation

The average number of barge trips (approximately 1 to 2 per week, with a peak of 5 to 6 per week) through the Kenmore Navigation Channel for activities related to demolition would be consistent with existing vessel traffic and would not adversely affect vessel traffic in Lake Washington. The previous Kenmore Yard NEPA/SEPA re-evaluations identified commitments related to navigation. As needed, WSDOT would communicate with CalPortland and Kenmore Air (the two primary users of the navigation channel) regarding any increases in barge traffic to prevent interruption of other vessel activity. Recreational boating traffic is not anticipated to be impacted by the slight increase of barge traffic in the channel. Lake Washington and the navigation channel are characterized by mixed boating traffic and as such, recreational boaters are accustomed to navigating amid varied maritime traffic and would not be expected to experience interruptions or delays due to the additional barge traffic. Overall, no significant effects on navigation are expected to result from the increased barge traffic and impacts on navigability during demolition are not expected to surpass those projected in the Final EIS and the Kenmore Yard Reevaluations.

Transportation

No transportation resources would be impacted by the proposed demolition activities at the Kenmore Yard. The demolition activities would require an average of 8 truck trips per day removing demolished materials from the site. In the 2011 Kenmore Yard Reevaluation, the analysis considered an average of 10 truck trips per day from the site. Therefore, the impacts described in the reevaluation would not change.

Land Use

In 2014, the Kenmore Municipal Code was amended to restrict heavy manufacturing, construction, and other industrial uses in the Regional Business zone where the Kenmore Yard is located. However, existing industrial uses (and other nonconforming uses) of the site are permitted to continue operating under existing footprints and operational plans. Demolition activities at the Kenmore Yard are a continuation of similar activities that have been ongoing at the site, including demolition activities during construction of the SR 520 floating bridge; therefore, no land use impacts are anticipated. Nonconforming uses would be subject to the local permitting requirements of the city of Kenmore.

Section 4(f) Resources

No Section 4(f) resources would be impacted by the proposed use of the Kenmore Yard for barging of demolition materials and demolition activities; therefore, no impacts are anticipated.

Hazardous Materials

Materials would be transported to the Kenmore Yard for demolition, including span column piles, concrete from transition piers, girders, crossbeams, and other debris. WSDOT has surveyed the existing floating bridge for hazardous materials and has discovered some areas of concrete with very low levels (less than 0.2 ppm) of arsenic present. Although the arsenic levels in some of the concrete are below those that would be expected to pose an issue for human health, WSDOT would transport all concrete containing arsenic to an approved demolition and disposal site and would not demolish any concrete suspected of containing arsenic at the Kenmore Yard. In accordance with the 2001 consent decree and associated Cleanup Action Plan with the Washington Department of Ecology, erosion control BMPs and groundwater monitoring would continue at the Kenmore Yard site during demolition activities. This would minimize the potential for a release of hazardous materials into the water. Further, WSDOT would continue to screen materials brought to the Kenmore Yard for hazardous materials, and if any are encountered, they would be disposed of in accordance with all applicable Federal, local, and state regulations.

Air Quality

Demolition activities have the potential to generate dust, which would be controlled using water as needed, per the Concrete Containment and Disposal Plan as well as the Fugitive Dust Control Plan. The water/slurry resulting from dust control and cutting would be contained and disposed of offsite in accordance with all applicable Federal, local, and state regulations. No other air quality issues are anticipated.

Cultural Resources

No impacts to cultural resources are anticipated as there would be no ground disturbing activities associated with use of the Kenmore Yard. A WSDOT Cultural Resources Specialist has reviewed the proposed plan and determined that no additional Section 106 consultation is required.

Westside Staging Area

The environmental impacts of the Westside Staging Area were previously evaluated in a February 2013 NEPA/SEPA Reevaluation. The Reevaluation documented that the Westside Staging Area would not result in new or significant adverse environmental effects beyond those described in the FEIS. As such, the continued use of the Westside Staging Area for bridge demolition activities is not expected to result in new or significant adverse environmental effects not previously described.

Water Resources

All activities at the Westside Staging Area would continue to be conducted in compliance with permit conditions and best management practices protecting water quality including spill prevention and containment. Therefore, no new or significant adverse environmental effects are anticipated.

Biological Resources

The continued use of the staging area would not result in new or significant adverse environmental effects on biological resources or listed species outside of those described in the FEIS or Westside Staging Area Reevaluation. The proposed use of the Westside Staging Area for demolition activities was included in the November 2015 ESA Reinitiation; however, no additional effects on listed species are anticipated. The increased shading that resulted from the overwater placement of the staging area would continue; however, as previously documented, this was not anticipated to negatively affect fish, including listed species. No effects from underwater noise or turbidity are anticipated as no construction activities are required for the continued used of the site. A WSDOT biologist has reviewed and concurred with this analysis.

Noise

Continued use of the Westside Staging Area would not require new construction or modifications; therefore, there would be no construction related noise effects. Operational activities at the Westside Staging Area are limited and would not generate high noise levels; therefore, continued use of the Westside Staging Area would not result in new or significant adverse environmental effects. Further, the contractor will comply with all local noise ordinances.

Environmental Justice

The Westside Staging Area is located within the MIT's usual and accustomed fishing areas. FHWA and WSDOT will coordinate with the MIT regarding use of the Westside Staging Area. FHWA and WSDOT will provide the MIT with an update regarding the plan to use the Westside Staging Area prior to the start of demolition. This coordination will allow tribal concerns to be properly considered and addressed. This commitment regarding continued coordination is documented in the FEIS and Westside Staging Area Reevaluation and has been maintained throughout the consultation process. There are no other changes that would affect low-income, minority, or limited-English proficient populations. The environmental justice determination as described in the FEIS and the Westside Staging Area Reevaluation would not change.

Navigation

There would be no impacts from the continued use of the Westside Staging Area to navigation on Lake Washington.

Transportation

No transportation resources would be impacted by the use of the Westside Staging Area for demolition activities. The impacts described in the FEIS and the Westside Staging Area Reevaluation would not change.

Section 4(f) Resources

No Section 4(f) resources would be impacted by the use of the Westside Staging Area for demolition activities; therefore, no impacts are anticipated.

Cultural Resources

No impacts to cultural resources are anticipated as there are no new potential effects to historic properties from the use of the Westside Staging Area for demolition activities. A WSDOT Cultural Resources Specialist has reviewed the proposed plan and determined that no additional Section 106 consultation is required.

Conclusion

The design refinements to the demolition plan for the SR-520 floating bridge will not result in additional effects beyond those described in the FEIS, ROD, and subsequent Environmental Reevaluations. Therefore, the project remains compliant with current federal, state, local, and departmental regulations and directives with regard to NEPA/SEPA processes, Section 106 and 4(f), and ESA.