

SR 520 Technical Work Session

Museum of History and Industry

July 15, 2008

Agenda

- Welcome and Meeting Overview
- What We Heard at June Open Houses
- Environmental Requirements
- Technical Studies Update

What We Heard At June Open Houses

- General west side design questions:
 - What are the alternatives being considered?
 - How are they different or similar?
 - How do they affect traffic?
 - How would I access SR 520 with this alternative?
 - What are the elevations of the various plans?
- General west side transportation questions:
 - How will transit access and service be improved in each alternative?
 - How will tolling change traffic on SR 520?
- A range of questions about construction impacts.
- Interest in the Health Impact Assessment.





Environmental Requirements

Environmental Regulations - Federal

- Federal Regulations
 - **National Environmental Policy Act (NEPA)**
 - Clean Water Act (wetlands/water quality)
 - Clean Air Act
 - **Section 4(f) (parks and wildlife refuges)**
 - Section 6(f) (some parks)
 - **Section 106 (historic and cultural resources)**
 - Rivers and Harbors Act (navigable waters)
 - **Endangered Species Act**

Environmental Regulations - State

- State Regulations
 - State Environmental Policy Act (SEPA)
 - Hydraulic Code (streams and aquatic habitat)
 - Water Pollution Control Act (stormwater and wetlands)
- Local Regulations
 - Shoreline Management Act regulations
 - Critical Areas ordinances

Coordination with Tribal Nations

- Muckleshoot Indian Tribe
- Suquamish Tribe
- Snoqualmie Tribe
- Tulalip Tribes
- Yakama Nation
- Duwamish Tribal Community
(not federally recognized)

Environmental Regulations we will cover today:

- NEPA/SEPA requirements and next steps
- Section 4(f)
- Wetland and shoreline regulations
- ESA
- Section 106

SR 520 NEPA / SEPA Requirements and Next Steps



What are NEPA and SEPA?

National and State Environmental Policy Acts:

Ensure evaluation of the probable environmental consequences/ impacts of a proposal before decisions are made by federal and state agencies.

- **NEPA – National Environmental Policy Act**
Applies to non-exempt (1) federal projects, (2) projects requiring a federal permit, and (3) projects receiving federal funding.
- **SEPA – State Environmental Policy Act**
Applies to non-exempt projects requiring state or local agency action.

Why are NEPA and SEPA important?

- Allow environmental effects to be weighed along with other project considerations (e.g. technology, economics).
- Provide a formal opportunity for public involvement and comment.
- Provide an “umbrella” process for coordinating compliance with the various environmental, cultural, historic preservation, and other laws.

Agencies Involved in NEPA and Permitting

- Co-Lead Agencies:
 - Federal Highway Administration (FHWA)
 - Sound Transit

Cooperating Agencies (involved in NEPA and permitting):

Federal

U.S. Army Corps*

U.S. Coast Guard

EPA*

NOAA Fisheries*

USFWS*

State

DAHP

WDFW*

DNR

PSCAA

Local

City of Bellevue

City of Clyde Hill

Town of Hunts Point

City of Kirkland

City of Medina

Town of Yarrow Point

City of Seattle

*Member of Signatory Agency Committee

Environmental Impact Statement (EIS):

- NEPA and SEPA require projects with potential for significant adverse environmental impacts to be reviewed in an EIS.
- An EIS:
 - Evaluates alternative ways to meet project purpose and need.
 - Describes effects of each alternative on built and natural environment.
 - Identifies measures to avoid, minimize, or mitigate project effects.

Disciplines studied in the SR 520 EIS:

- Transportation
- Geology and Soils
- Air Quality
- Hazardous Materials
- Public Services & Utilities
- Energy
- Visual Quality and Aesthetics
- Indirect & Cumulative Effects
- Noise
- Social
- Parks and Recreation
- Land Use, Economics and Relocation
- Environmental Justice
- Cultural and Historic Resources
- Ecosystems
- Water Resources
- Navigation

NEPA/SEPA EIS Process:

- Notice of Intent (NOI) – (NEPA only)
- Scoping
- Draft EIS
- Comment Period on the Draft EIS
- Final EIS (or Supplemental Draft EIS followed by Final EIS)
- Record of Decision – (NEPA only)

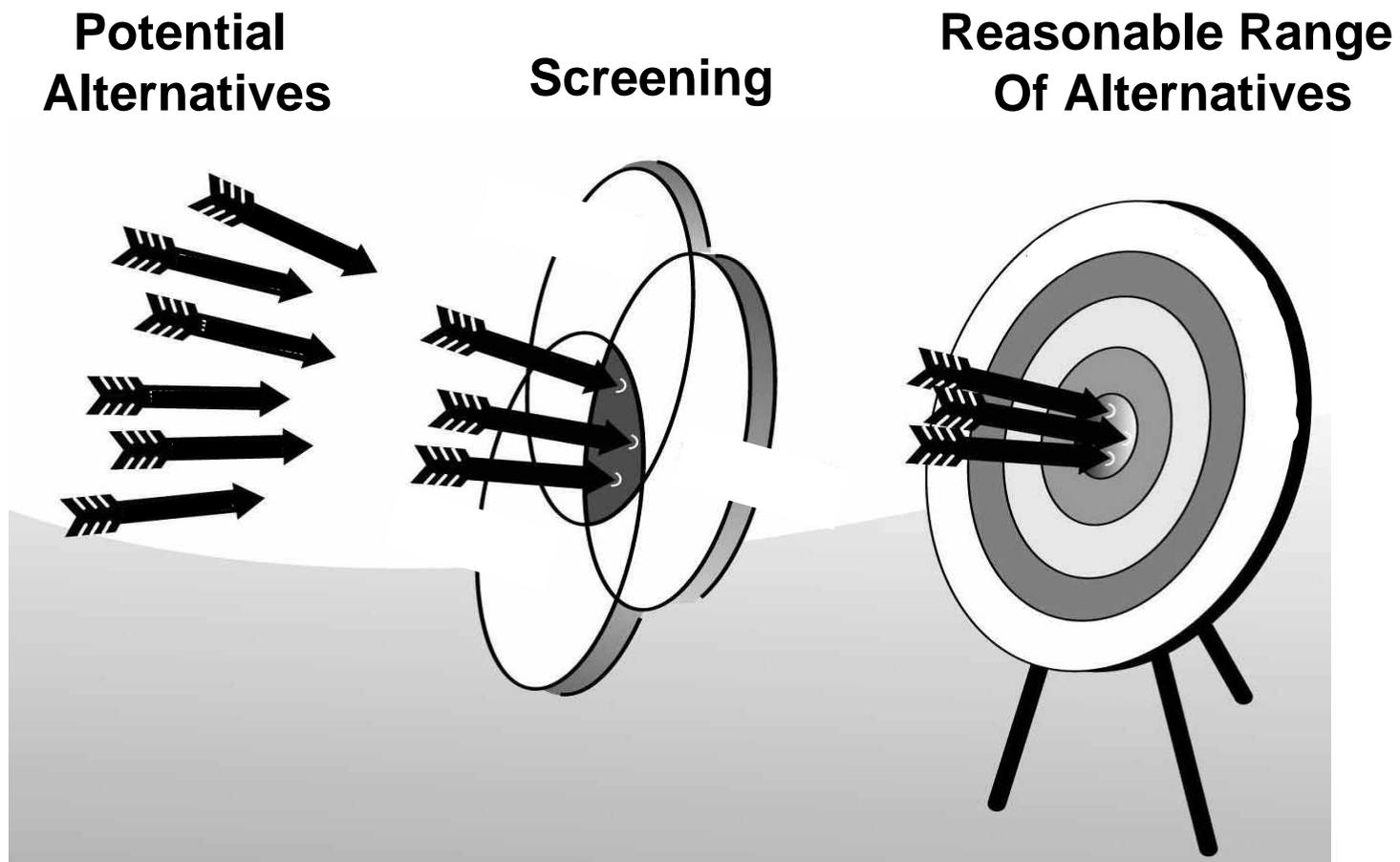
A Successful EIS will:

- Focus on the most significant and vital information concerning the:
 - Proposal
 - Alternatives
 - Impacts
- Provide sufficient information about each alternative so that impacts can be compared between alternatives.
- Present the lead agency's analysis and conclusions about the likely environmental impact of the proposal.

EIS Alternatives:

- Alternatives are one of the basic building blocks of an EIS.
 - Presents options in a meaningful way for decision-makers.
- Reasonable range of alternatives must be analyzed and compared.
 - Must cover full spectrum but need not include every possible permutation.
 - “Reasonable Alternative” is a feasible alternate course of action that meets the proposal’s objective at a lower environmental cost.

Determining the Range of Alternatives:



SR 520 Project NEPA/SEPA Process to Date:

- Notice of Intent published in July 2000.
- Screening criteria developed in 2001.
- Range of alternatives developed 2001-02.
- Alternatives evaluated 2004-06.
- Draft EIS Issued in August 2006.

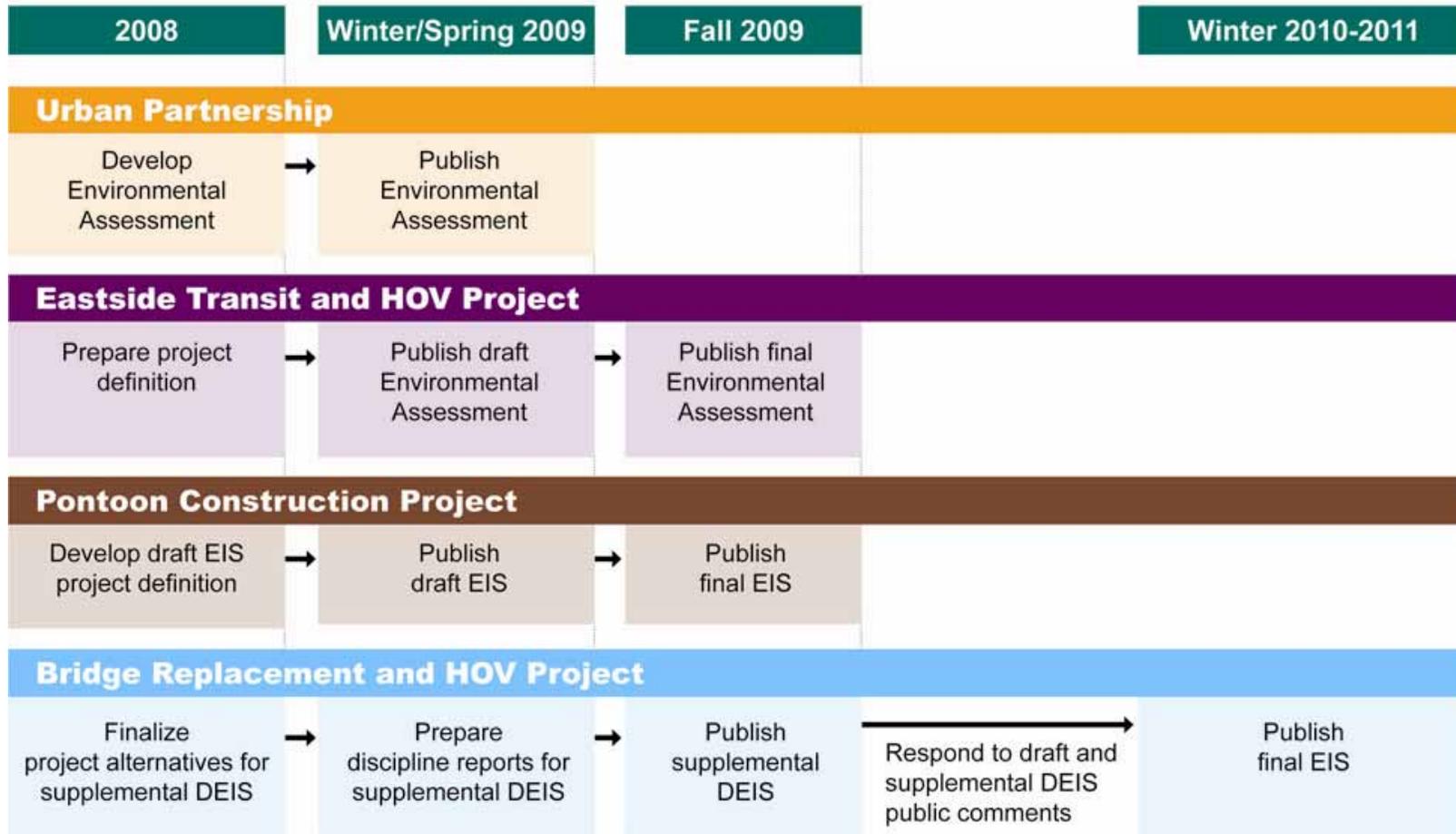
Since the Draft EIS:

- Mediation team formed to develop solutions for west side.
- Pontoon Construction Project moves forward to address catastrophic failure.
- Eastside Transit and HOV Improvements Project addresses needs east of Lake Washington.
- Urban Partnership Project begins to evaluate early tolling:
 - Tolling
 - Technology and Traffic Management
 - Transit
 - Telecommuting

Supplemental EIS:

- If any significant new issues have been raised, the lead agency may choose to issue a supplemental draft EIS with a second comment period prior to issuing the final EIS.
- New information may include:
 - New alternatives.
 - New areas of likely significant adverse impact.
 - Additional analysis to areas not adequately addressed in the original document.

Moving Forward:



EIS: Environmental Impact Statement



Questions

SR 520 Section 4(f) Compliance



Section 4(f) = Section 303 Title 49

The secretary may approve projects requiring the use of publicly owned land of a public park, recreation area, or wildlife/waterfowl refuge, or land of a historic site of national, state, or local significance (as determined by the officials with jurisdiction) only if -

- 1) **There is no feasible and prudent alternative to such use, and**
- 2) **The project includes all possible planning to minimize harm**

Section 4(f) Basics

- Actions of US DOT Agencies – **ONLY**.
- US DOT the resource / regulatory authority.
- Requirements include:
 - Alternatives analysis.
 - Avoidance, minimization, and compensation.
 - Coordination and consultation.
 - Documentation and process.
 - Findings.
- Procedural or substantive law?

Section 4(f) References

- Legislation
 - 49 USC 303 (transportation)
 - 23 USC 138 (highways)
- Regulation
 - 23 CFR 774 (FHWA and FTA)
- Guidance
 - FHWA Policy Paper
 - Re: NEPA Community of Practice (<http://nepa.fhwa.dot.gov>)
 - www.environment.fhwa.dot.gov

What is a Section 4(f) Property?

- Properties / resources ...
 - ... parks, recreation areas, wildlife and waterfowl refuges, and historic properties with qualities that satisfy specific criteria.
- Not all parks, recreation areas, wildlife and waterfowl refuges, or historic properties are section 4(f) resources.

4(f) Applicability Criteria

- Parks and recreation areas:
 - Publicly owned.
 - Public park.
 - Major purpose for park or recreation.
 - Significant resource.

4(f) Applicability Criteria

- Wildlife and waterfowl refuges:
 - Publicly owned.
 - Major purpose for refuge purposes.
 - Significant property.
- Historic property
 - On or eligible for National Register of Historic Places.

4(f) Historic Property

- Individual historic property
 - On or eligible for the National Register of Historic Places.
- Archeological sites
 - National Register eligible and important for preservation in place.
 - Not significant for data recovery (information) only.

Section 4(f) Applicability

- In historic districts, property that is
 - Individually historic, integral to, or contributing element of the district.
- Locally historic property
 - If determined by FHWA with appropriate and sufficient evidence.
- National Historic Landmarks
 - Treated the same way other historic properties are treated, but FHWA should consider their importance and significance.
- Traditional culture properties
 - On or eligible for the National Register.
- Consultation with SHPO/THPO

Section 4(f) Evaluation

- Project purpose and need.
- 4(f) resources and properties (applicability).
- Use and impacts.
- Alternatives considered, including **avoidance** and **minimization**.
- Measures to minimize harm and mitigation.
- Coordination - significance, impacts, mitigation, land conversions.
- Finding of no feasible and prudent alternative.

Feasible / Prudent Avoidance

- Feasible – technically possible, constructible.
- Prudent – reasonable, “does it makes sense?”
- Make the case:
 - Alternative does not meet project purpose and need.
 - Excessive cost of construction.
 - Serious operational or safety problems.
 - Unacceptable social, economic and/or environmental impacts.
 - Excessive community disruption.
 - Combinations of the above.



Questions

SR 520 Compliance with Wetland and Shoreline Regulations

Washington State Department of Ecology





Questions

Technical Studies Update

- Fish Tracking Study
- Natural Resources
- Cultural Resources



Fish Tracking Study



Natural Resources

SR 520 Corridor Program



Wetland Class

- L1AB - Littoral Aquatic Bed
- L2AB - Littoral Aquatic Bed
- L1AB/L2AB
- PFO - Forested
- PSS - Scrub-Shrub
- PEM - Emergent
- PEM/PSS

Source: City of Seattle (2003) GIS Data (Wetlands); City of Bellevue (2003) GIS Data (Wetlands). Horizontal datum for all layers is NAD83(91), vertical datum is NADV88. Field updates by Parametrix, 2002-2004.

Note: Wetlands are labeled with wetland and acreage.

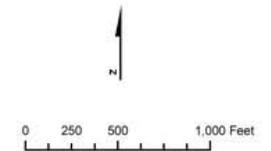
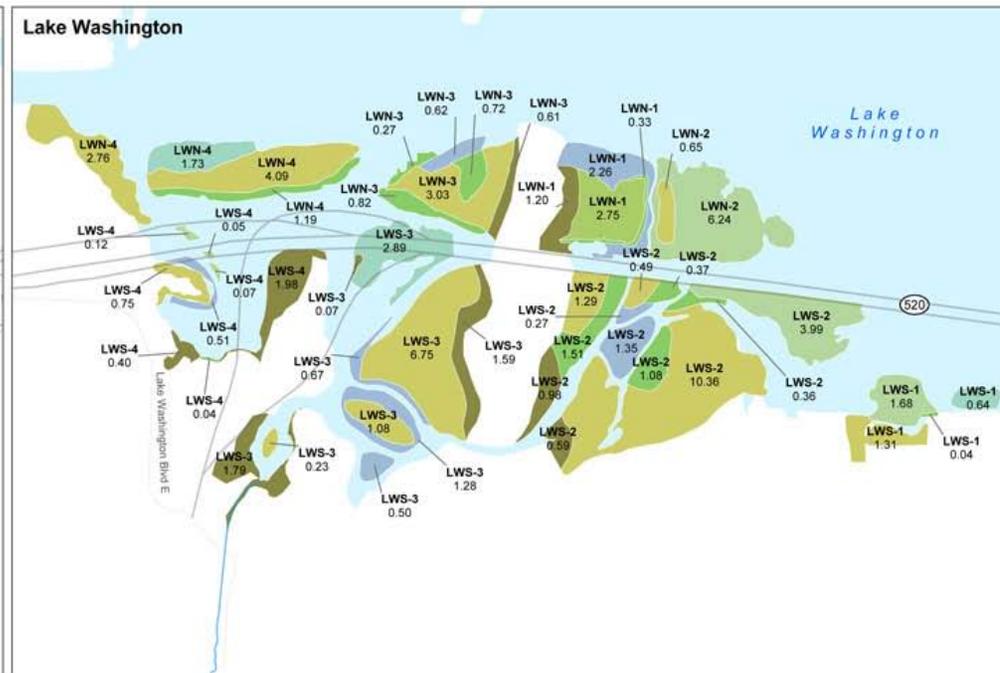


Exhibit 15. Locations of Wetlands in the Seattle Project Area
SR 520 Bridge Replacement and HOV Project

Existing west side corridor conditions



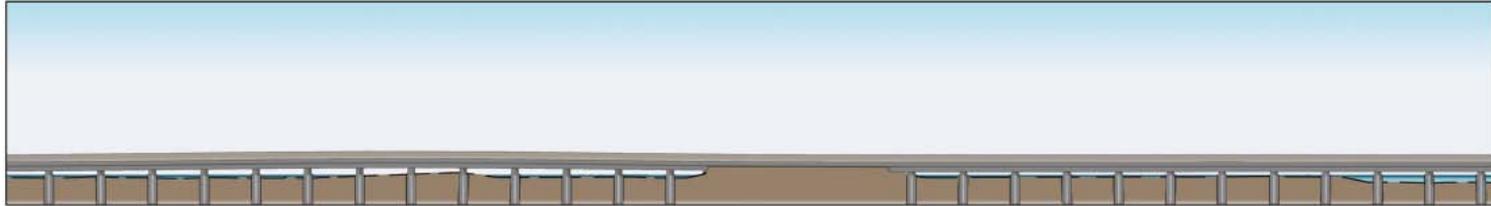
-  Park
-  Wetland
-  NRHP Eligible or Listed
-  Potential Historic District



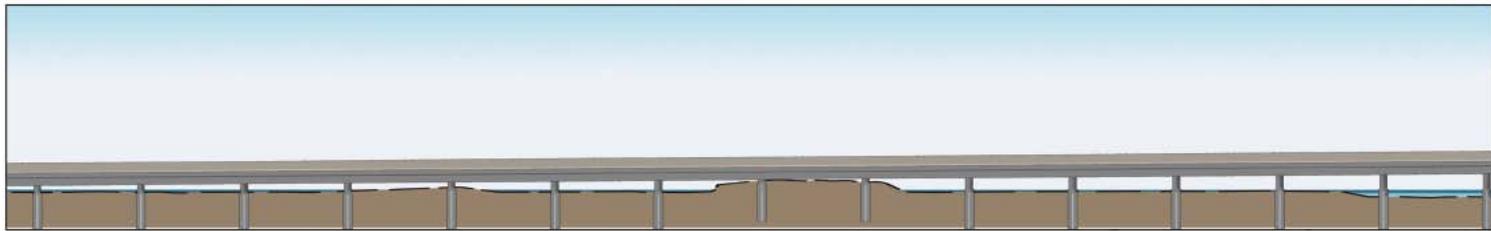
Washington State
Department of Transportation

SR 520 Corridor Program

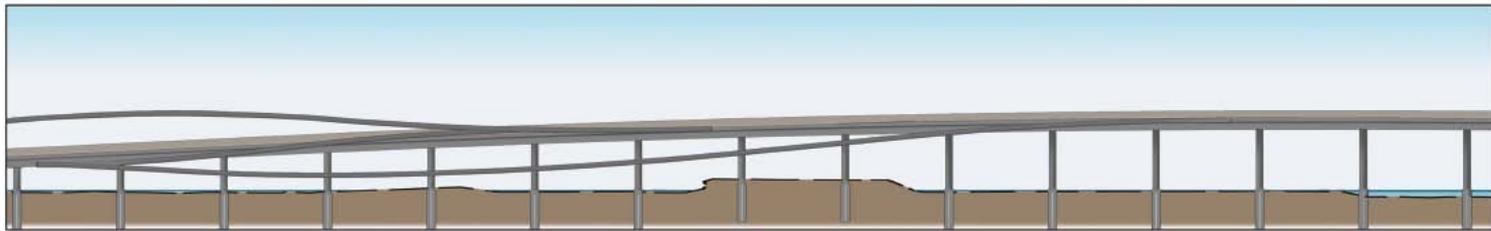




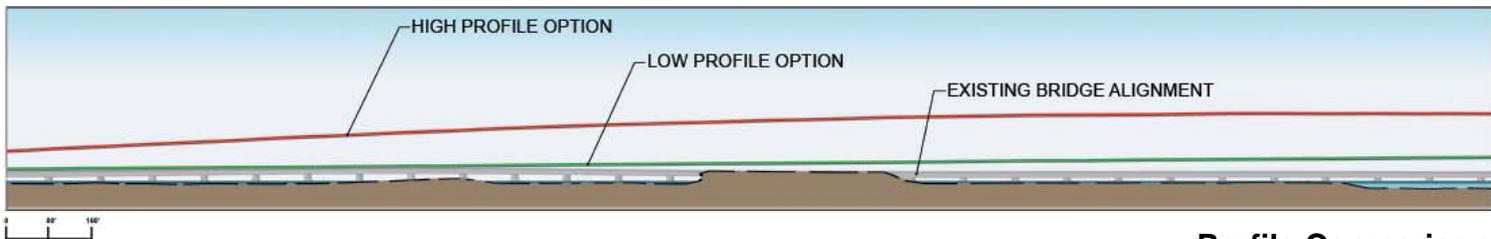
Existing Profile
Resembles Alternatives K and L



Low Bridge Option



High Bridge Options
Resembles Profile Analyzed in the Draft EIS

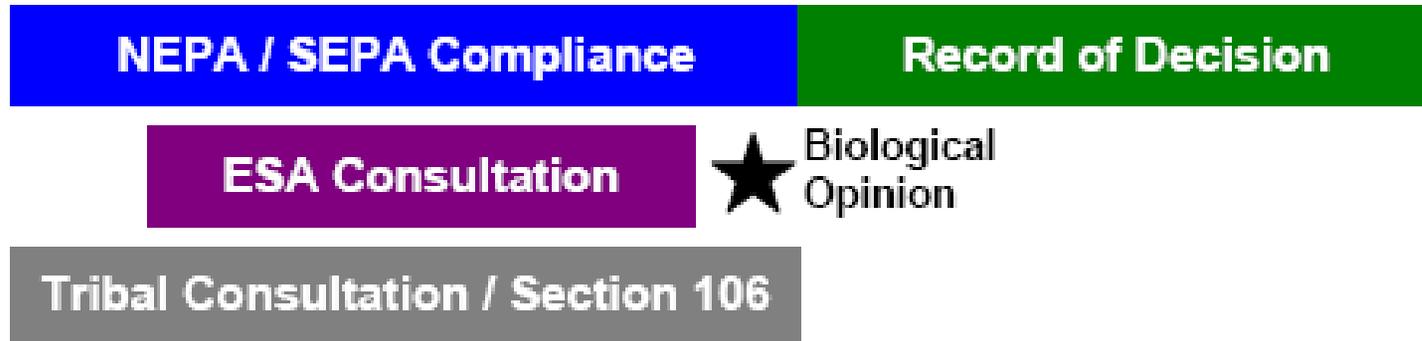


Profile Comparison

Regulatory and Endangered Species Act Compliance

- Local, state and federal permits
 - Shoreline, critical areas
 - Water quality (CWA 401), Wetlands (CWA 404) and hydraulic project approval
- ESA Consultation Process
 - Biological Assessment
 - Biological Opinion

NEPA/SEPA Consultations Schedule:





Questions



Cultural Resources of Portage Bay, Montlake Cut, and Union Bay

What are Cultural Resources?

- Objects – monuments, sculptures, fountains.
- Buildings – houses, barns, private and public buildings.
- Structures – bridges, trestle, aircraft.
- Sites – locations of past events.
- Districts – concentrations of the other types.
- Cultural Landscapes – a district and associated geography.
- Traditional Cultural Places – locations of religious or cultural importance.

Why are Cultural Resources Important?

- **Academic**
 - Where did we come from, what explains our history?
 - Physical evidence important for understanding and explaining why things happened the way they did.

- **Historic Preservation**
 - Preserve past and existing cultural heritage resources for the common good.
 - Honor our own history.
 - Treasure the history of others.
 - Preserve representative examples.
 - Artistic forms or styles.
 - Architectural styles.
 - Record physical remains and collect artifacts from sites before disturbing or permanently displacing them.
 - Archaeology and architectural history are *complementary datasets* to written history and primary sources.

Which Resources are Important to Protect?

- **Laws and Regulations**
 - National Historic Preservation Act (NHPA)
 - National Environmental Policy Act (NEPA)
 - State Environmental Policy Act (SEPA)
 - King County Landmarks
 - City of Seattle Landmarks

- **Guidelines**
 - Significance criteria
 - Preservation qualities / integrity
 - Types of effects
 - Remedies (avoid, minimize, mitigate)

National Historic Preservation Act (NHPA), Section 106 and Implementing Regulations 36 CFR 800: Protection of Historic Properties

- NHPA requires the Federal Agency to take into account the effects of their undertaking will have on Historic Properties.
- Federal Agency must identify and consult with other Parties that have an Interest in the effects.
- FHWA, the lead Federal Agency, has delegated some Section 106 responsibilities to WSDOT.
- Process complete prior to expenditure of funds or issuance of a Record of Decision (ROD).

The Section 106 Process

- 1. Determine if project is a Federal undertaking**
Is there a federal nexus?
- 2. Initiate consultation with concerned parties.**
SHPO, Tribes, local governments, other public or private organizations with demonstrated interest.
- 3. Identify historic properties.**
Establish Area of Potential Effect (APE), identify all cultural resources, determine historically significant ones.
- 4. Assess adverse effects.**
Determine direct and indirect effects caused by project.
- 5. Resolve adverse effects.**
Work together with consulting parties to outline ways to avoid, minimize, or mitigate adverse effects.

Step 3: Identify Historic Properties

Evaluating Historical Significance

- Apply National Register of Historic Places (NRHP) significance criteria to each resource to determine if eligible for listing.
- 4 Significance Criteria
 - Criterion A – Event Important to History
 - Criterion B – Person Important in History
 - Criterion C – Important Architectural Style, Work of Artisan or Master Craftsman
 - Criterion D – Possesses Information Important to Understanding or Explaining History or Prehistory
- A resource must possess one or more of these four AND ...

Step 3: Identify Historic Properties (Continued)

Possess most aspects of integrity

- Location
- Association
- Setting
- Feeling
- Design
- Materials
- Workmanship

And physical integrity

Step 4: Assess Adverse Effects

- Apply criteria of adverse effects
 - Will undertaking alter, directly or indirectly, any characteristics of the property that make it eligible for the National Register?
 - Diminish Integrity (7 Aspects)
 - Location
 - Association
 - Setting
 - Feeling
 - Materials
 - Workmanship
 - Design
 - Diminish physical integrity
 - Destruction in whole or in part
- Make Determination
 - No adverse effect
 - Adverse effect

Step 5: Resolve Adverse Effects

- Consult with Parties to identify ways to avoid, minimize, or mitigate adverse effects on each affected historic property.
- New Parties may enter consultation process at any time, and should notify WSDOT and/or FHWA of their desire. FHWA will consider the request and notify the Party of their decision to accept or deny it.
 - It is common for new parties to enter after historic properties are determined.
- Create and execute a Memorandum of Agreement (MOA).
 - Outlines approaches to avoid, minimize, or mitigate the adverse effects to each historic property in APE.

The Section 106 Process During the Draft EIS

- Initiated consultation.
- Identified APE based on combined footprints of two alternatives and several options.
- Identified existing historic properties.
- Surveyed for other built and subsurface cultural resources.
- Identified historic properties (not all formally determined).
- Identified potential adverse effects to historic properties for each alternative.

Historic Properties Likely to Remain in SDEIS APE of the Three Alternatives



Buildings

- **MOHAI (Montlake Historic District)**
- **Mason House (2545 Boyer Ave East)**
- **Seattle Yacht Club (Montlake Historic District)**
- **NOAA Northwest Fisheries Science Center (Main Building Only) (Montlake Historic District)**
- **Canoe House**

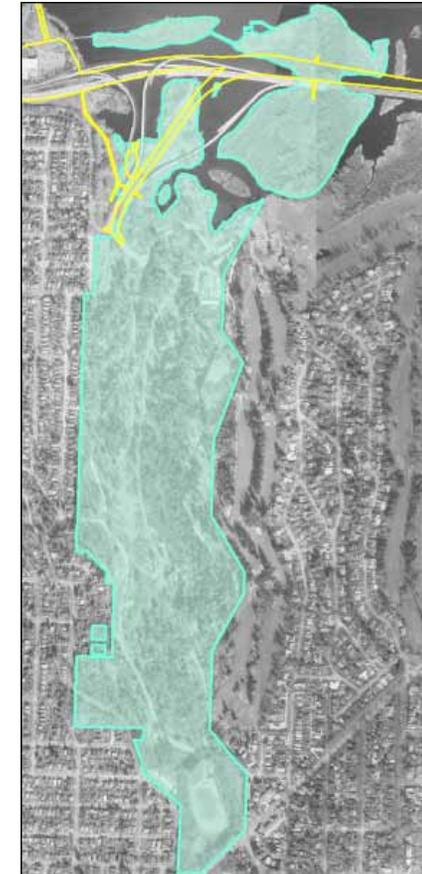
Historic Properties Likely to Remain in SDEIS APE of the Three Alternatives



Structures

- Montlake Bridge
- SR 520 Evergreen Point Bridge

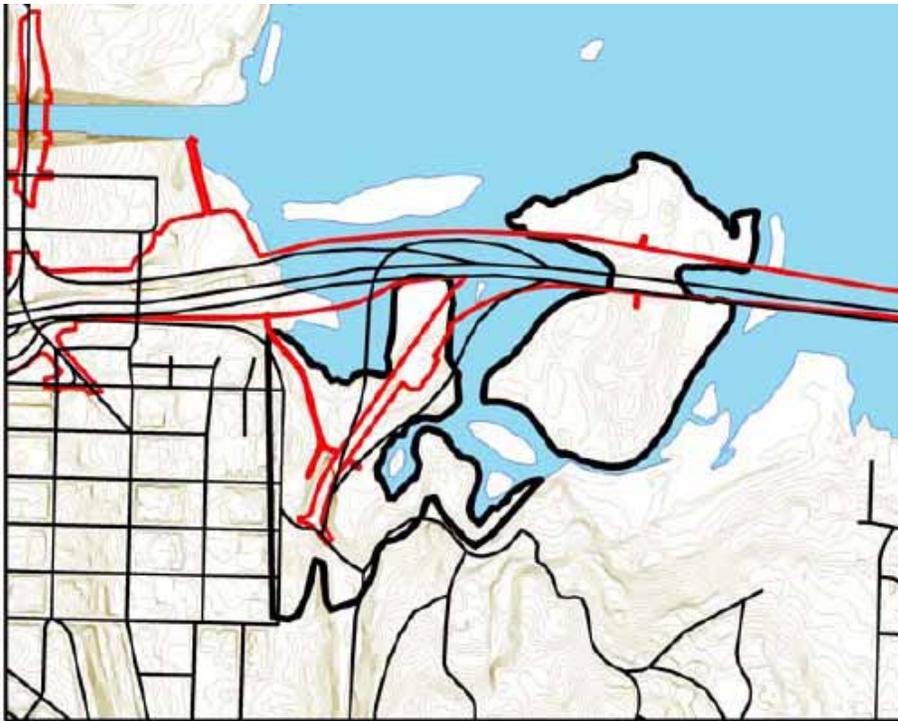
Historic Properties Likely to Remain in SDEIS APE of the Three Alternatives



Districts

- Roanoke Park Historic District
- Montlake Historic District
- Chittenden Locks and Montlake Cut National Historic District
- Washington Park Arboretum

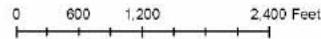
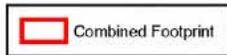
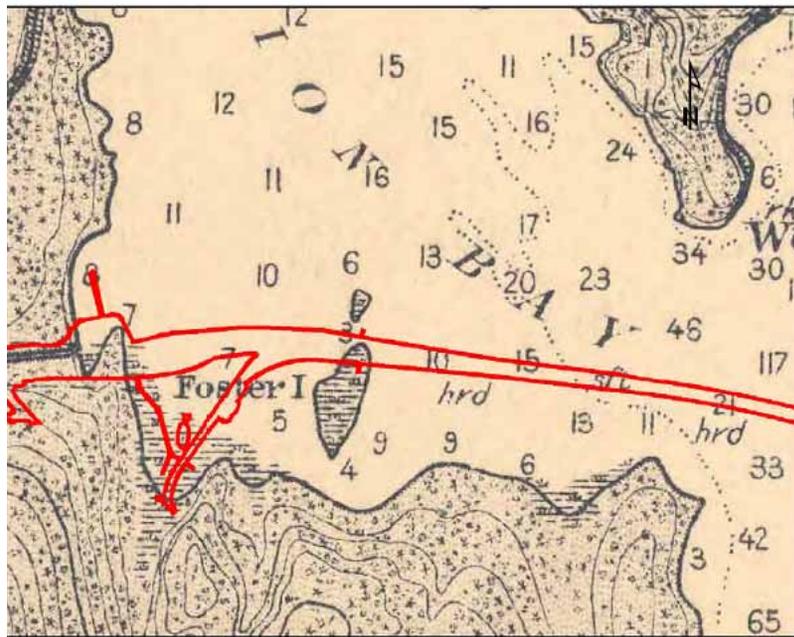
Historic Properties Likely to Remain in SDEIS APE



Archaeological sites

- Miller Street Landfill
- Foster Island (unidentified to date)

Historic Properties Likely to Remain in SDEIS APE of the Three Alternatives



Traditional Cultural Property

- Foster Island

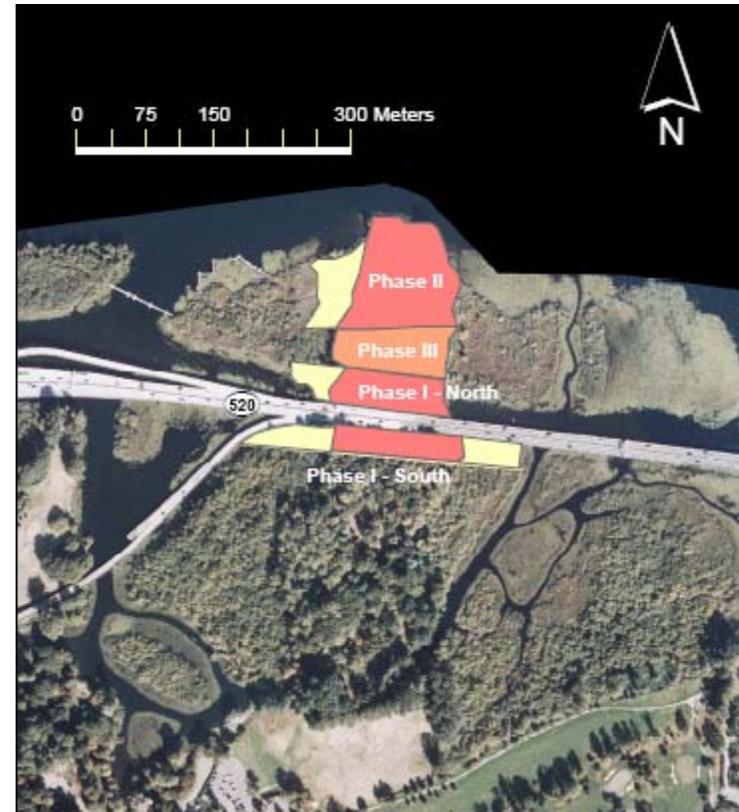
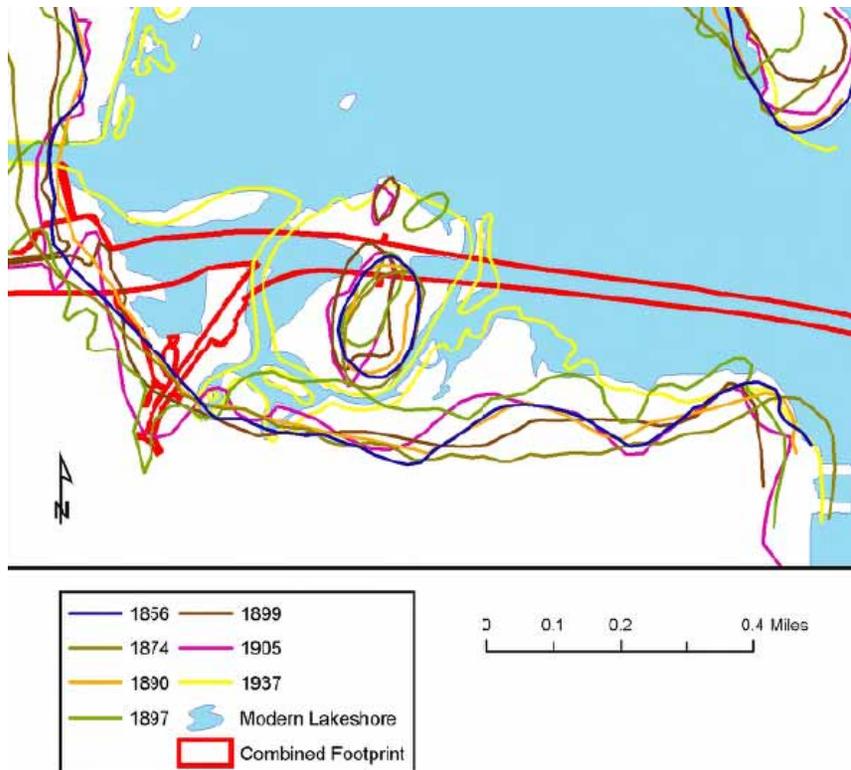
Next Steps for Supplemental Draft EIS

- Identify new APE once Alternatives Solidify
- Initiate and Resume Consultation with Identified Parties
 - State Historic Preservation Officer
 - Seattle Historic Preservation Officer
 - University of Washington
 - Arboretum Society
 - Olmsted Society
 - NOAA
 - Seattle Yacht Club
 - Roanoke Community
 - Montlake Community
 - Muckleshoot Indian Tribe
 - Suquamish Tribe
 - Snoqualmie Tribe
 - Tulalip Tribes
 - Yakama Nation
 - Duwamish Tribal Community
(not federally recognized)

Next Steps for Supplemental Draft EIS

- Complete identification of historic properties.
- Complete documentation of historic properties.
- Assess project effects on historic properties for each alternative.
- Compare relative scale of adverse effects across the alternatives.

On-Going Cultural Resources Technical Studies



Foster Island Ground-Penetrating Radar (GPR) Study

- Identify the two historic islands
- Identify subsurface features on the islands



Questions