

Welcome to the I-5 Marvin Rd. to Mounts Rd. PEL Technical Advisory Group Mtg.

We'll start soon. This meeting will be recorded.

While you're waiting...

- Make sure your audio is working. If your computer doesn't have a mic, you can call in on your phone.
- Find the chat box! If you want to write instead of talk, that's the way to do it.
- Find Raise Hand under reactions
- Change your Participant Name
 - Option #1: Hover over your video and click on ellipses and "Rename"
 - Option #2: Hover over your name under Participant List and click on ellipses and "Rename"

I-5 Marvin Rd. to Mounts Rd. Planning & Environmental Linkages Study

Technical Advisory Group Meeting #2

February 15, 2023

Ashley Carle
George Mazur
John Perlic
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WSDOT Olympic Region Multimodal Development Manager
WSDOT Olympic Region Multimodal Planning Manager
Consultant Team Project Manager—Parametrix
Consultant Team—Parametrix

Agenda

- 1:00 Welcome and Introductions
- 1:15 Meeting Goals and Outcomes
- 1:25 Finalize Purpose and Need
- 1:45 Range of Alternatives
- 2:15 Review Level 1 Alternatives Evaluation Criteria
- 2:55 Next Steps
- 3:00 Adjourn

Welcome and Thank You

WSDOT is engaging project area jurisdictions, including tribes, counties, cities, and national and local resource agencies

Introductions

- We will call your organization name — please respond with your name
- To change your Participant Name in Zoom
 - Hover over your video and click on ellipses and "Rename"
 - Hover over your name under Participant List and click on ellipses "Rename"

TAG Participants

Invited to participate

- Alliance for a Healthy South Sound Executive Committee
- Billy Frank Jr Nisqually National Wildlife Refuge
- Black Hills Audubon Society
- BNSF
- City of DuPont
- City of Lacey
- City of Lakewood
- City of Olympia
- City of Tumwater
- City of Yelm
- Cowlitz Indian Tribe
- Ducks Unlimited
- Federal Highway Administration
- Foothills Rails to Trails Coalition
- Forevergreen Trails
- Friends of Nisqually NWRC
- Intercity Transit
- Joint Base Lewis-McChord
- Muckleshoot Indian Tribe
- Nisqually Indian Tribe
- Nisqually Land Trust
- Nisqually River Council
- Pierce County
- Pierce Transit

TAG Participants

Invited to participate

- Port of Olympia
- Port of Tacoma
- Puget Sound Regional Council
- Sound Transit
- South Sound Military & Communities Partnership
- Squaxin Island Tribe of Indians
- Tahoma Audubon Society
- Thurston County
- Thurston Regional Planning Council
- Town of Steilacoom
- Transportation Choices Coalition
- Washington Farm Labor Association
- Washington State Patrol
- Yakama Indian Nation

Meeting Participation

Virtual Participation

- Mute yourself when you're not speaking
- “Raise your hand” or use chat box for questions or comments
- Say your name before speaking
- If calling in from your phone:
 - Dial *6 to mute/unmute
 - Dial *9 to raise your hand

Input Opportunities

- Chat box and polls throughout the meeting
- Discussion opportunities at the end of each topic

Meeting Goals and Outcomes

Meeting Goals

- Input and active participation
- Understanding of the process

Outcomes

- Confirm Purpose and Need
- Input on *updated* range of alternatives
- Input on alternatives evaluation criteria

Advisory Group Responsibilities

- Represent agency and resources in the study area
- Provide data and input on direction of study
- Advise on range of alternatives and alternatives evaluation criteria
- Help build consensus and support for alternative(s) selection

Schedule

WSDOT I-5 Marvin Road to Mounts Road Planning & Environmental Linkage (PEL) Study Project Schedule



- FHWA Concurrence Point #1 - Reason and Desired Outcomes
- FHWA Concurrence Point #2 - Purpose & Need
- FHWA Concurrence Point #3 - Alternatives Evaluation
- FHWA Concurrence Point #4 - Final Report

- *Meeting 1 - Stakeholder Advisory Meeting Series 1
- *Meeting 2 - Stakeholder Advisory Meeting Series 2
- *Meeting 3 - Stakeholder Advisory Meeting Series 3
- *Meeting 4 - Stakeholder Advisory Meeting Series 4

- ★ Stakeholder Interviews
- ◆ Public Review

2023 PEL Advisory Group Meetings

Meeting 1

January:

- Project Background & desired outcomes
- Study Area & Logical Termini
- Stakeholder Review of Conceptual Purpose & Need
- Stakeholder Review of Conceptual Alternatives
- Introduce Alternatives Evaluation Process
- Request for data

Meeting 2

February:

- Review Meeting #1
- Review new information from Meeting #1 questions
- Consensus discussion on Final Purpose and Need
- Stakeholder Review of Level 1 Alternatives Evaluation Criteria

Meeting 3

March:

- Review Meeting #2
- Review new information from Meeting #2 questions
- Stakeholder Review of Level 1 Alternatives Evaluation Results
- Stakeholder Review of Level 2 Alternatives Evaluation Criteria

Meeting 4

April:

- Review Meeting #3
- Review new information from Meeting #3 questions
- Stakeholder Review of Level 2 Alternatives Evaluation Results
- Consensus discussion on Evaluation Results and Alternatives to Advance into NEPA

*Agendas may change slightly as the project progresses.

TAG meetings will precede EAG meetings so that TAG members can brief their EAG members before the EAG meeting.

Meeting 1 Recap

- Project Background & desired outcomes
- Study Area & Logical Termini
- Stakeholder Review of Conceptual Purpose & Need
- Stakeholder Review of Conceptual Alternatives
- Introduce Alternatives Evaluation Process
- Request for data

1

Purpose and Need

Updated Project Purpose

- **Enhance mobility and connectivity** on I-5 for passenger vehicles, freight, transit, and active modes and provide support for increased person **and freight** throughput.
- Improve local and mainline I-5 **system resiliency**
- Enable **environmental restoration and ecosystem resiliency** at the I-5 crossing of the Nisqually River Delta area
- Support **economic vitality** through reliable **and efficient** freight movement and access to major employers

Enhance Mobility Needs

- Daily traffic growth on I-5
 - 111,000 (2012) to 125,000 (2019)
 - 1.5% annual growth
 - 106,000 (2020) Covid related
 - 119,000 (2021) rebound post-Covid
- Future 2045 Volumes—20-30% higher than today, or 150,000-160,000 vehicles
- ***Truck volumes expected to increase 55% by 2050***
- I-5 JBLM Corridor South project completion in 2024—lane transition from 4 to 3 lanes
- Future southbound I-5 congestion at Mounts Road extends 7+ miles

Enhance Mobility Needs

- Intercity Transit bus service between Olympia, Lakewood, and Tacoma
- ***With current growth projections for the area, there is not enough ridership potential to support High Capacity Transit (HCT) services such as light rail or bus rapid transit. Phase 2 of TRPC's HCT work will further evaluate when in the future developing light rail and/or commuter rail might be prudent from a cost/ridership perspective.***
- Amtrak Cascades passenger rail service
- Regional active transportation connection between Thurston and Pierce County

System Resiliency Needs

- Risk of I-5 infrastructure failures from:
 - Climate change and sea level rise impacts
 - Nisqually River channel migration
 - Flooding vulnerability
 - Northbound bridge age (85 years) and Sufficiency Rating (48 out of 100)
 - Substandard vertical and lateral clearance from truss design
 - ***Seismic events***
- Effects of I-5 infrastructure failures:
 - Long detours from I-5 lane reductions or closures
 - Congestion increases on arterial streets

Environmental Restoration and Ecosystem Resiliency Needs

- Environmental restoration of natural processes and functions for:
 - Enhancing habitat for salmon and other species
 - Restoring natural tidal flow and river flow
- Ecosystem resiliency from climate change
 - Sea level rise effects on fresh/saltwater mixing zone
 - Extreme river flow event frequency
- ***The current configuration of I-5 through the Nisqually River Delta has impinged on natural ecosystems and therefore affected tribal treaty resources. There is a need for the project to restore natural functions to improve the availability of and access to treaty resources for tribes.***

Economic Vitality Needs

- River navigability—commercial fishing for Nisqually Indian Tribe and *all waterway recreational users, including Nisqually Indian Tribe*
- Truck Freight Economic Corridor
- Access to and from regional Port Districts
- Operational viability of JBLM and Washington State National Guard—part of Strategic Highway Network
- Access to destinations at Marvin Road interchange
 - Hawk’s Prairie Business District
 - *Quiemuth Village*

Updated Project Purpose

- **Enhance mobility and connectivity** on I-5 for passenger vehicles, freight, transit, and active modes and provide support for increased person **and freight** throughput.
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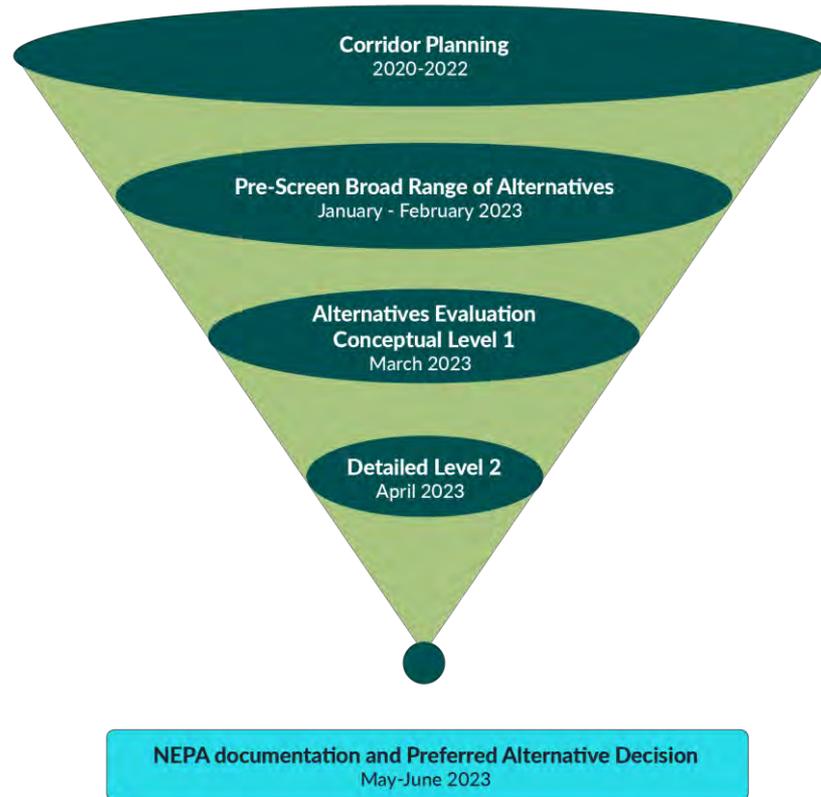
Poll #1: Do you support this Purpose and Need for the study and adoption into NEPA?

- a) Yes!
- b) No, I'd like to discuss further with the Study Team.

2

Range of Alternatives

Alternatives Evaluation



Range of Alternatives

- Alternative 1 - Operations Improvements (Design Options A-C)
- Alternative 2 - Widen I-5 for HOV lanes (Design Options A-D)
- Alternative 3 - Widen I-5 for GP lanes (Design Options A-D)
- Alternative 4 - Convert I-5 lanes from GP to HOV Lanes (Design Options A-C)
- ***Changes from Meeting Series #1***
 - ***Added Design Options A, B & C to Alternatives 1 and 4***
 - ***Alternative 5 Local Improvements in Yelm are funded—this was removed from the Alternatives list and moved to planned improvements***
 - ***Added Design Option D to Alternatives 2 and 3—Long span, high level bridge crossing***
 - ***Shared use path included in all alternatives***

Alternative 1

Operations Improvements

- Operations - Lane management for HOV's
- Land Use - Consistency with local plans
- Transportation Demand Management (TDM) - support for alternative travel modes including ***Shared-use path from Marvin Road Interchange (Exit 111) to Mounts Road Interchange (Exit 116)***
- Transit - ***Express Bus Service***
- ***Includes Design Options A-C***



TDM strategies

Alternative 2

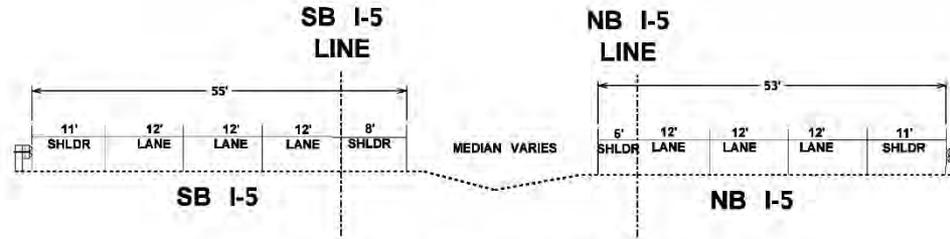
Widen for HOV Lanes

- Widen I-5 for HOV lanes
- Shared-use path from Marvin Road Interchange (Exit 111) to Mounts Road Interchange (Exit 116)

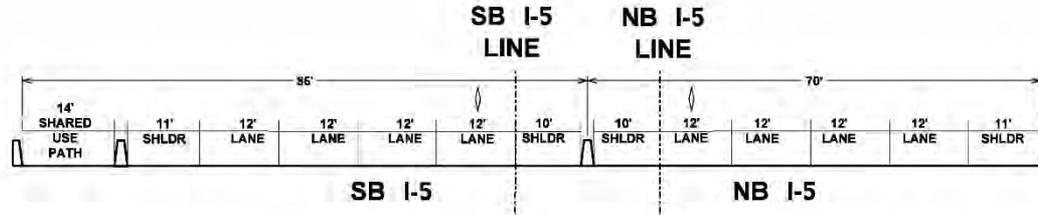


Alternative 2: Cross Sections

Widen for HOV Lanes



EXISTING I-5 TYPICAL SECTION



CONCEPTUAL I-5 TYPICAL SECTION WITH IMPROVEMENTS

Alternative 3

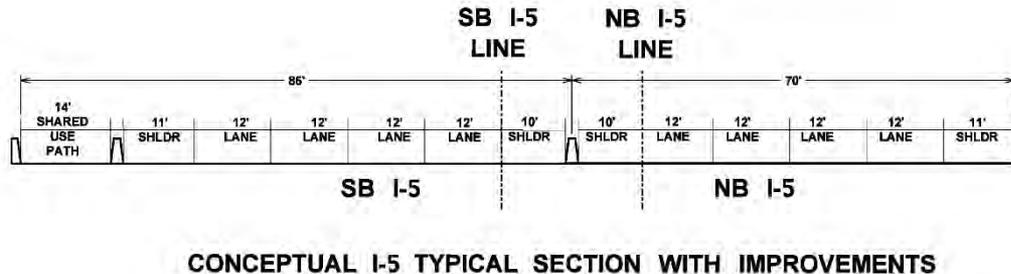
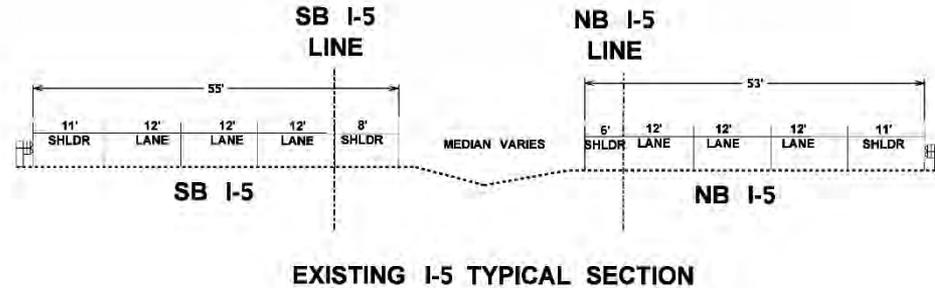
Widen for GP Lanes

- Widen I-5 for GP lanes
- Shared-use path from Marvin Road Interchange (Exit 111) to Mounts Road Interchange (Exit 116)



Alternative 3: Cross Sections

Widen for GP Lanes



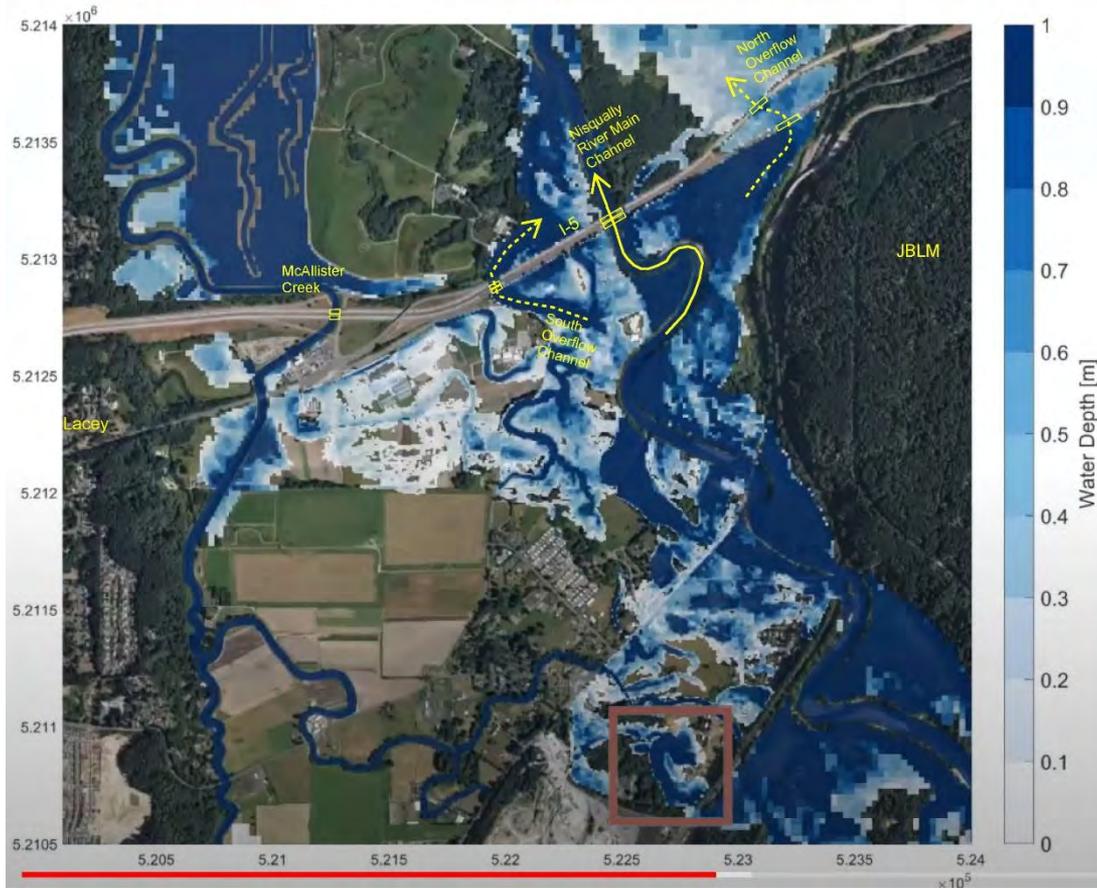
Alternative 4

Convert GP to HOV Lanes

- Convert I-5 lanes from GP to HOV Lanes
- Shared-use path from Marvin Road Interchange (Exit 111) to Mounts Road Interchange (Exit 116)
- *Includes Design Options A-C*



Nisqually Existing Flood Overflows



Design Options A-C

Typical structure examples – US 2 Trestle

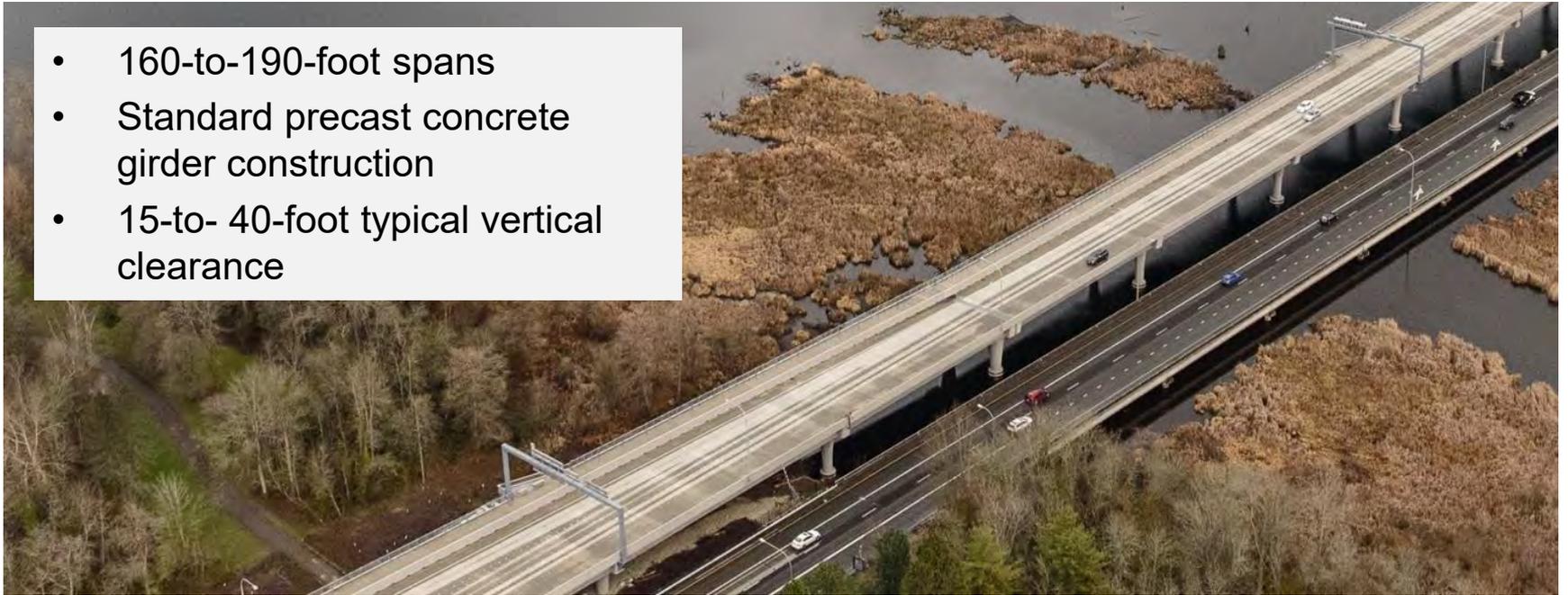


- Standard precast concrete girder construction
- Spans the Snohomish River floodplain

Design Options A-C

Typical structure examples – SR 520 – New westbound structure

- 160-to-190-foot spans
- Standard precast concrete girder construction
- 15-to- 40-foot typical vertical clearance



Design Option A

Fill removal and additional bridge structure for an approximate 3,000' length



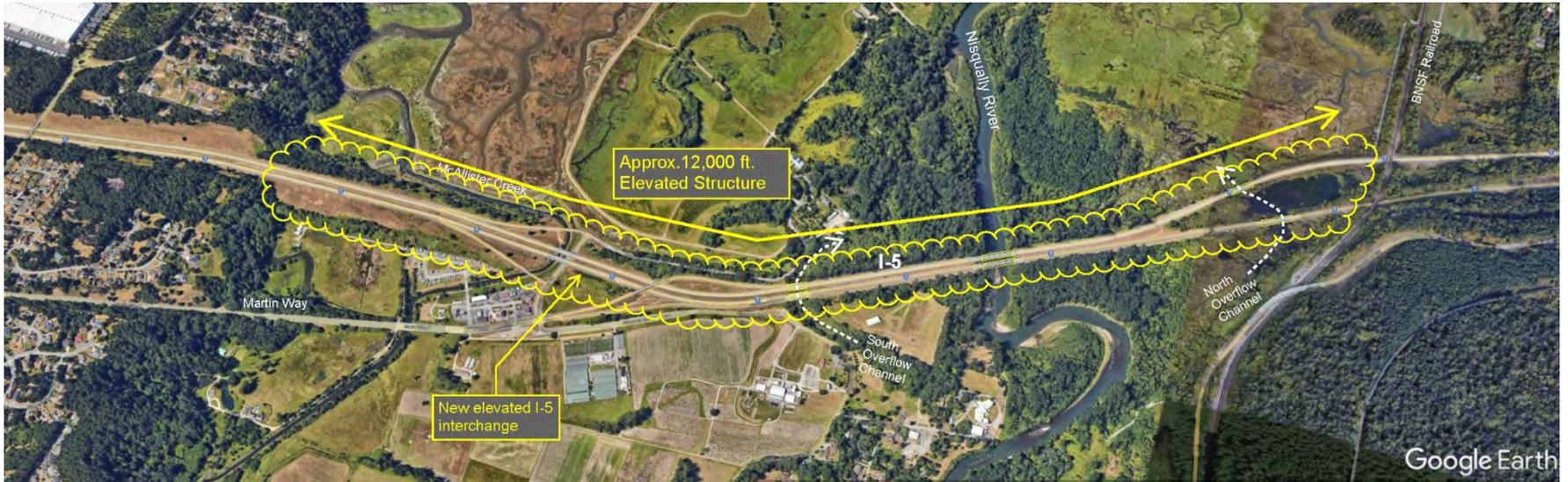
Design Option B

- Fill removal and additional bridge structure for an approximate 6,000' length
- Bridge and fill removal for McAllister Creek realignment (can also be paired with Option A)



Design Option C

- Fill removal and additional bridge structure for an approximate 12,000' length
- New elevated I-5 Nisqually interchange



Design Option D

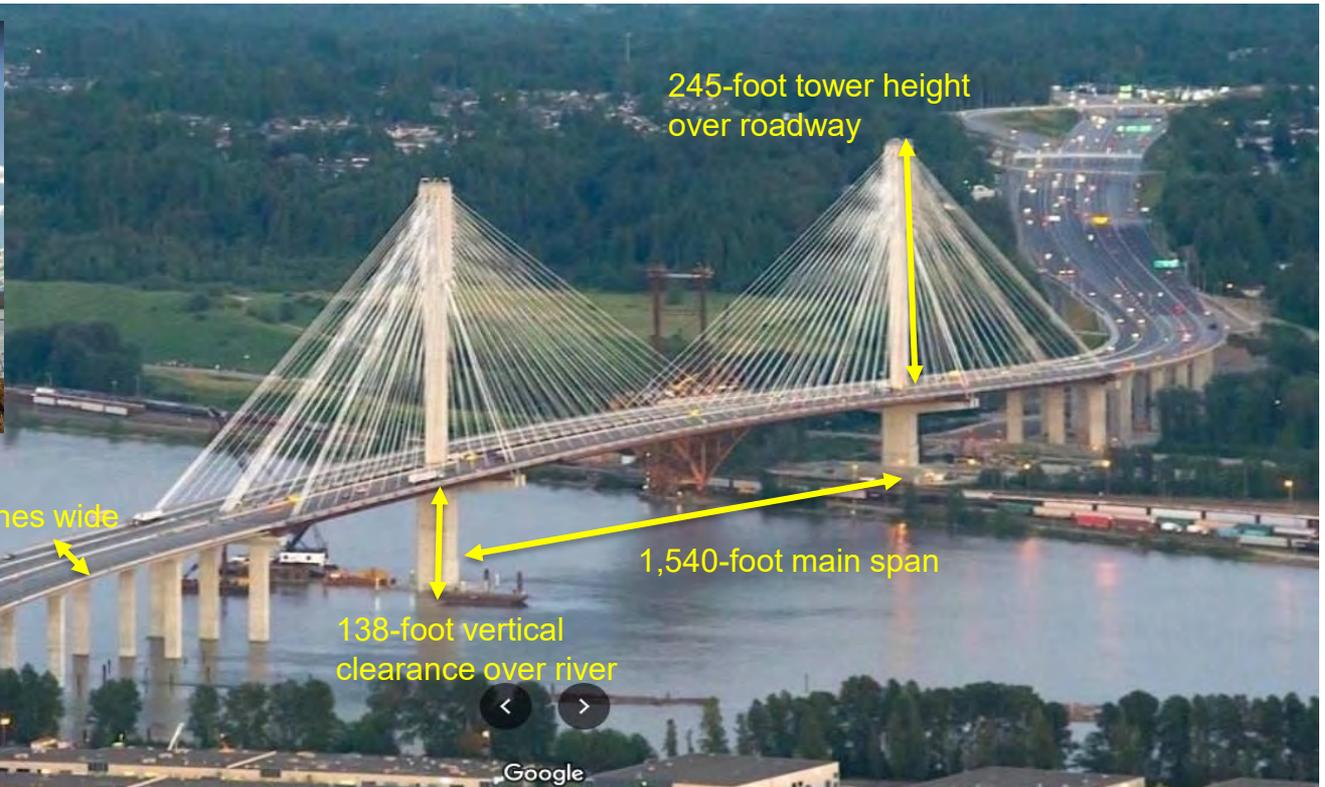
High Level Long Span Bridge

- Fill removal and high-level long span bridge for an approximate 14,000' length
- 1,200 - 1,500 foot span lengths
- Curvature limitations for long span bridges requires re-alignment of I-5
- Removes local road connection to and from I-5 at the existing Nisqually Interchange



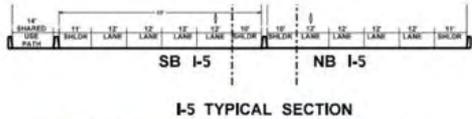
Design Option D

High Level Long Span Bridge – Port Mann Bridge Example



Design Option D

High Level Long Span Bridge – Nisqually crossing



Comments and Questions: Alternatives



Poll 2: After reviewing the updated Range of Alternatives, do they include everything you expected?

a) Yes!

b) No, I would like to discuss further with the Study Team.

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Level 1 Alternatives Evaluation Criteria

	<i>Alternatives</i>	Alternative 1 – Operations Improvements			Alternative 2 – Widen I-5 for HOV Lanes				Alternative 3 – Widen I-5 for GP Lanes				Alternative 4 – Convert I-5 Lanes from GP to HOV Lanes			
		<i>Design Options</i>	A	B	C	A	B	C	D	A	B	C	D	A	B	C
Enhance mobility and connectivity on I-5 for all modes and providing support for increased person and freight throughput	Accommodates active transportation and transit modes															
	Provides congestion relief for vehicles															
	Effects on adjacent roadways															
	Increases person throughput															
	Complementary to local planning															
Improve local and mainline I-5 system resiliency	Reduces the risk of infrastructure failures															
	Reduces the risk of infrastructure failures due to seismic activity															
	Reduces the risk of large vehicle collisions with the Nisqually Bridge															
Enable environmental restoration and ecosystem resiliency at the I-5 crossing of the Nisqually River Delta area	Incorporates environmental restoration															
	Promotes ecosystem resiliency															
Support economic vitality through reliable freight movement, access to major employers, and sustainable tribal commercial fishing activity	Freight reliability															
	Multimodal access to jobs															
	River navigability															
Support equitable outcomes	Minimizes property acquisitions requiring business or residential relocations															
	Minimizes the flood risk potential for EJ populations															
Relative cost of alternatives	Planning-level cost comparison															

Rating Scale

Lower Performing

Higher Performing

Design Options

Design Option A – 3,000'

Design Option B – 6,000'

Design Option C – 12,000'

Design Option D – 14,000' – 15,000'

Level 1 Evaluation Criteria

Project Purpose Statement	Evaluation Criteria	Methodology (Qualitative Analysis)
<p>Enhance mobility on I-5 for all modes and providing support for increased person and freight throughput</p>	<p>Accommodates Active Transportation and Transit Modes</p>	<p>Does the alternative accommodate transit and active transportation?</p>
	<p>Provides Congestion Relief for Vehicles</p>	<p>Does the alternative provide congestion relief for general purpose traffic, transit, and trucks?</p>
	<p>Effects on Adjacent Roadways</p>	<p>Does the alternative improve mobility on local streets?</p>
	<p>Increases person throughput</p>	<p>Does the alternative increase person throughput?</p>
	<p>Complementary to Local Planning</p>	<p>Is the alternative complementary to local and tribal planning efforts, including land use plans and transportation plans?</p>

Level 1 Evaluation Criteria

Project Purpose Statement	Evaluation Criteria	Methodology (Qualitative Analysis)
<p>Improve local and mainline I-5 system resiliency</p>	<p>Reduces the risk of Infrastructure Failures</p>	<p>Does the alternative reduce the risk of infrastructure failure by addressing erosion and channel migration of the Nisqually River?</p>
	<p>Reduces the Risk of Infrastructure Failures due to Seismic Activity</p>	<p>Does the alternative increase resiliency of the Nisqually Bridge by enhancing its ability to withstand seismic activity?</p>
	<p>Reduces the Risk of Large Vehicle Collisions with the Nisqually Bridge</p>	<p>Does the alternative increase overhead or lateral clearance for vehicles on the Nisqually River Bridges, reducing the risk of collisions with the bridge structure?</p>

Level 1 Evaluation Criteria

Project Purpose Statement	Evaluation Criteria	Methodology (Qualitative Analysis)
Enable environmental restoration and ecosystem resiliency at the I-5 crossing of the Nisqually River Delta area	Incorporates environmental restoration	Does the alternative restore environmental systems by improving fish passage, building and maintaining habitat, reducing impacts to river hydraulics and geomorphology, etc?
	Promotes Ecosystem Resiliency	Does the alternative increase resiliency against the impacts of climate change?

Level 1 Evaluation Criteria

Project Purpose Statement	Evaluation Criteria	Methodology (Qualitative Analysis)
Support economic vitality through reliable freight movement, access to major employers, and sustainable tribal commercial fishing activity	Freight Reliability	Does the alternative improve freight reliability and reduce economic impacts of freight delay?
	Multimodal Access to Jobs	Does the alternative improve access to jobs by driving, transit, biking, and walking?
	River Navigability	Does the alternative promote equitable access and navigability of the Nisqually River for the Nisqually Indian Tribe?

Level 1 Evaluation Criteria

Project Purpose Statement	Evaluation Criteria	Methodology (Qualitative Analysis)
Support Equitable Outcomes	Minimizes Property Acquisitions Requiring Business or Residential Relocations	Does the alternative minimize the number of potential business and residential relocations, especially for environmental justice populations?
	Minimizes the Flood Risk Potential for EJ Populations	Does the alternative address the risk of flooding, particularly for environmental justice populations?

Level 1 Evaluation Criteria

Project Purpose Statement	Evaluation Criteria	Methodology (Qualitative Analysis)
Relative cost of alternatives	Planning-level cost comparison	How do the alternatives compare for planning-level costs?

What We've Heard

- Consider adding stormwater and wetlands impacts to evaluation criteria
- Consider separate evaluation criteria for construction and maintenance

Poll #3: After reviewing Level 1 Alternatives Evaluation Criteria, does it include everything you expected?

- a) Yes, the alternatives evaluation criteria meets my expectations and my organization's preferences.
- b) The alternatives evaluation criteria includes some of what I expected, but not all.
- c) No, I would like to provide the project study team with additional alternatives evaluation criteria to consider.

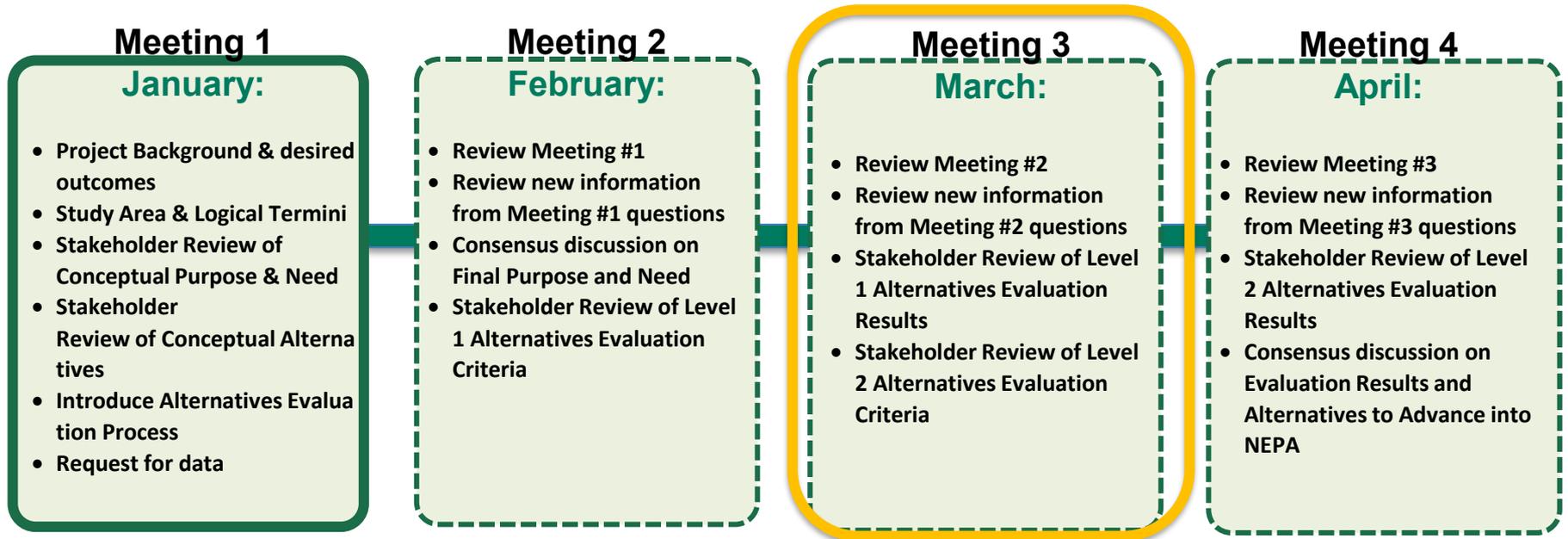
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Next Steps

Next Steps

- Post meeting materials for review
- Review and comment request on Level 1 alternatives evaluation criteria
- Let us know if you haven't received the March 14 calendar invite

Next Steps



*Agendas may change slightly as the project progresses.

TAG meetings will precede EAG meetings so that TAG members can brief their EAG members before the EAG meeting.

Final Comments and Questions



Contact

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