



Alternatives Analysis

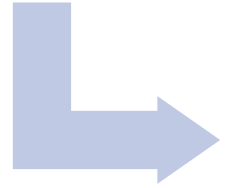
a snapshot of regulatory framework
with brief review of LWV comments on
DSL Permit Application

Alternatives Analysis is Rooted in National Environmental Policy Act (NEPA)

- NEPA requires federal agencies to undertake an assessment of the environmental effects of proposed actions prior to making decisions.
- The permit applicant is required to prepare and submit information regarding project alternatives.
- Analyses may include on-site designs or off-site locations.
- The No Action is an alternative step

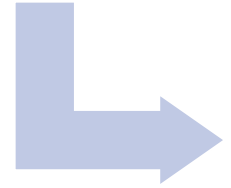
Need and Purpose

- Define project need, purpose and geographic area



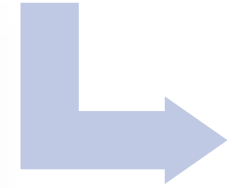
Project Criteria

- Develop criteria to evaluate alternatives based on availability, cost, logistics and technology



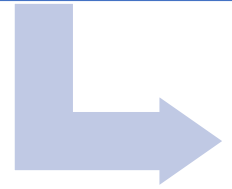
Alternatives

- Evaluate alternatives based on project criteria to achieve project purpose.



Environmental Analysis

- Compare impacts and adverse effects



Identify LEDPA

- Identify least environmentally damaging practicable alternative including NO ACTION alternative

NEPA
Recommended
Stepwise
Approach to
Evaluate
Alternatives



Alex Derr Photo

DSL Guidance for Analysis of Alternatives

- Applications include “an analysis of alternatives to derive the practicable alternative that has the least reasonably expected adverse impacts on waters of this state.”
- *Practicable* means it can be accomplished after taking into consideration cost, existing technology, and logistics with respect to the overall project purpose.
- The alternatives analysis is a tool to help identify the practicable alternative with the least impact, and as such, *should be introduced early in project design. It should not be used as a means to justify what has already been decided upon.*

1. Public need, the social, economic or other public benefits likely to result. 2. The economic cost to the public if the proposed fill or removal is not accomplished.

JPEP States:“*The Navigation Reliability Improvements (NRIs) enhancements will allow for transit of LNG vessels of similar overall dimensions to those listedin the USCG Letter of Recommendation, but under a broader range of weather conditions, specifically higher wind speeds.*”

1. Public need, the social, economic or other public benefits likely to result. 2. The economic cost to the public if the proposed fill or removal is not accomplished.

“The Navigation Reliability Improvements (NRIs) enhancements will allow for transit of LNG vessels of similar overall dimensions to those listedin the USCG Letter of Recommendation, but under a broader range of weather conditions, specifically higher wind speeds.”

LWV comments: “Dredging and relocation of 590,000 CY from 4 areas along the Federal Navigation Channel in the bay is not a need. The benefits are for achievement of a financially-driven goal of exporting 7.8 MMT of LNG per year, a less than 1% increase over what exports without the additional disruption of the NRIs.”

3. The availability of alternative locations to the project for which the fill or removal is proposed

4. The availability of alternative site designs for the proposed fill or removal.

Oregon Sites

- Coos Bay
- Astoria - Warrenton
- Wauna
- Port Westward

Washington Sites

- Grays Harbor

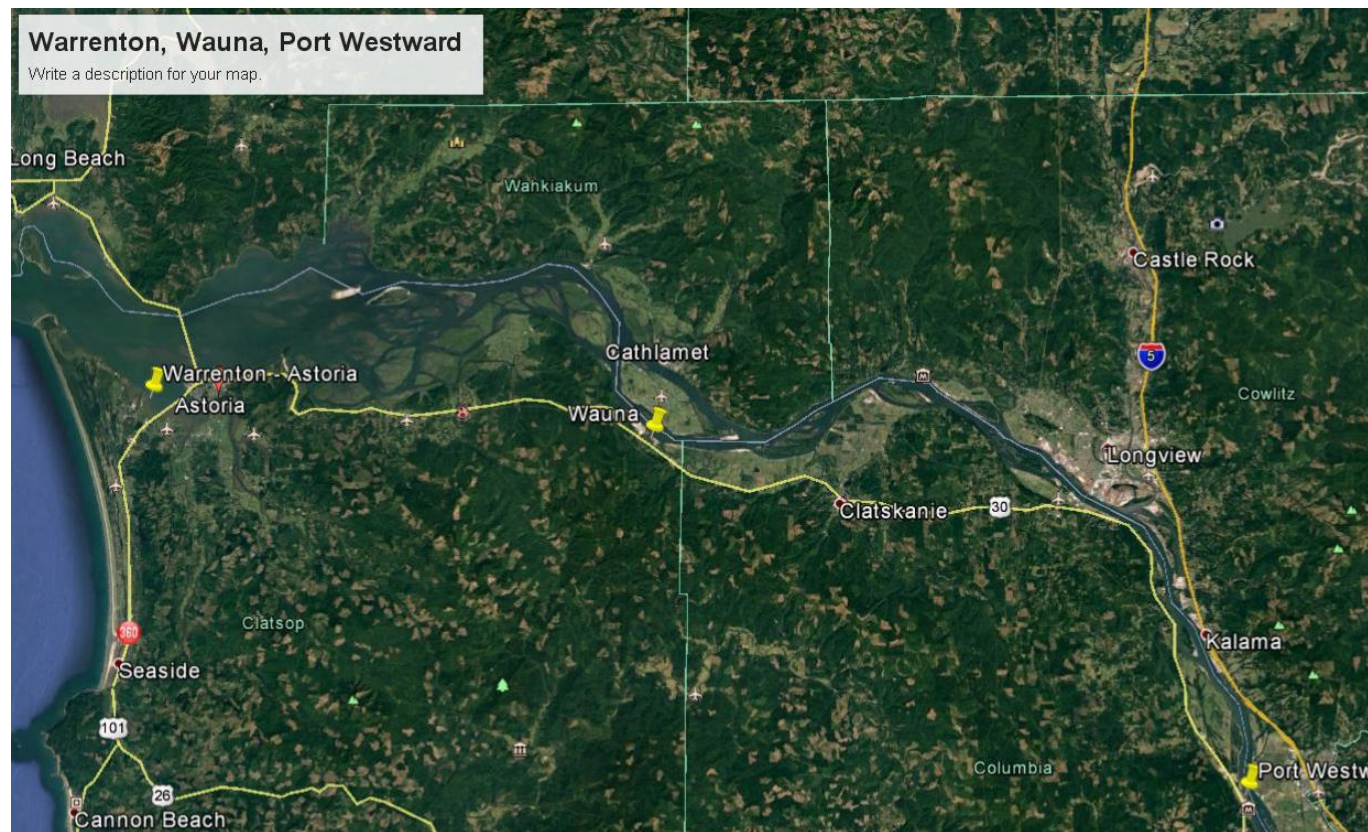
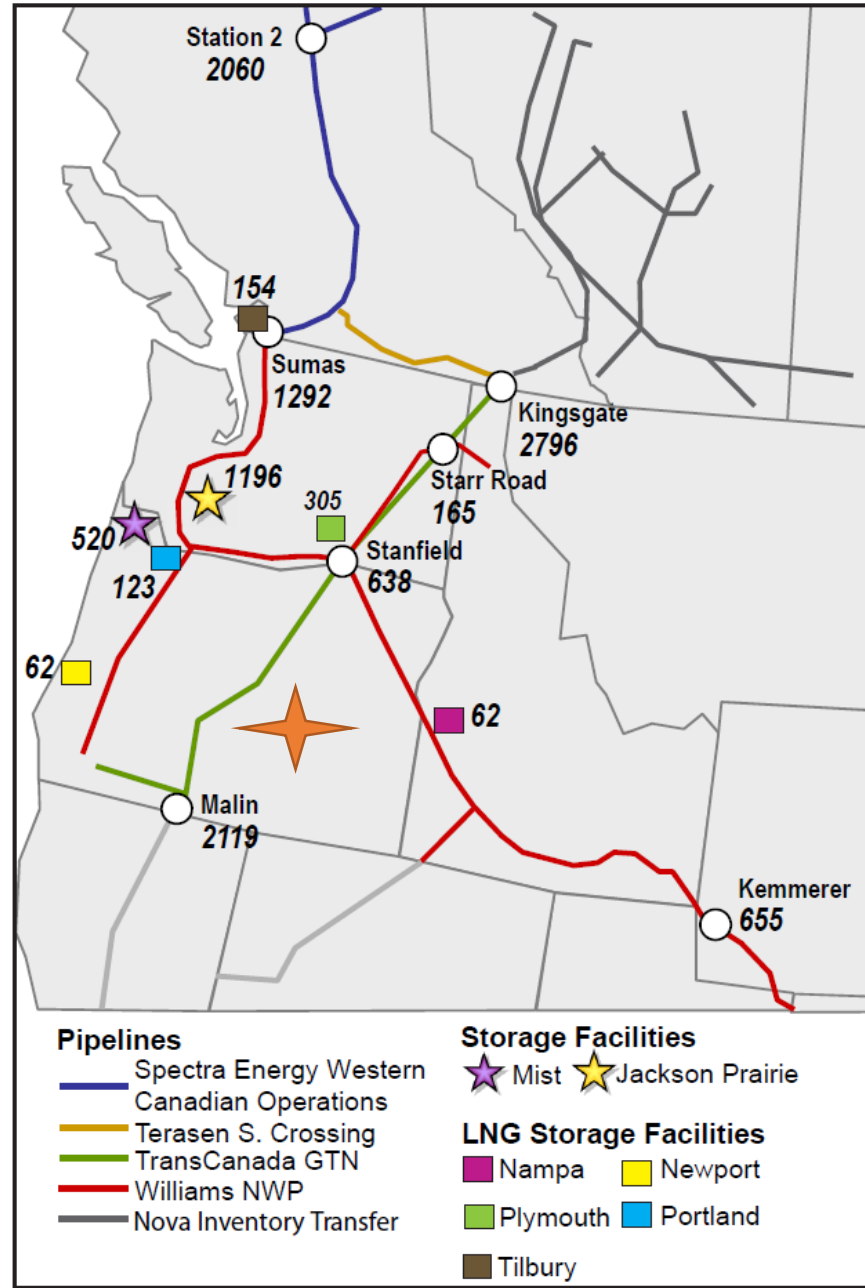


Table 10.3-3 Environmental Analysis of Potential Sites

Location	Construction Area (ac)	Area existing industrial (ac)	Freshwater Wetlands (ac) ⁶	Estuarine / In-water (ac) ⁷	Major Water Bodies (#) ⁸	Natural and Scenic Hwy (#) ⁹	Endangered or threatened species habitat ¹⁰ (#)	Federal Land Crossed (ac) ¹¹	State Land crossed (ac) ¹²	Existing Residences w/in 1 mile (#) ¹³
Coos Bay, Or	412	90	83	35	1	0	9	0	0	116
Astoria - Warrenton, OR	519	251	143	130	2	1	10	0	365	975
Wauna, OR	321	47	49	35	1	0	15	0	0	5
Port Westward, OR	336	72	51	60	1	0	16	0	0	828
Grays Harbor, WA	272	209	61	42	1	1	9	0	0	1637

Key Pacific Northwest Infrastructure

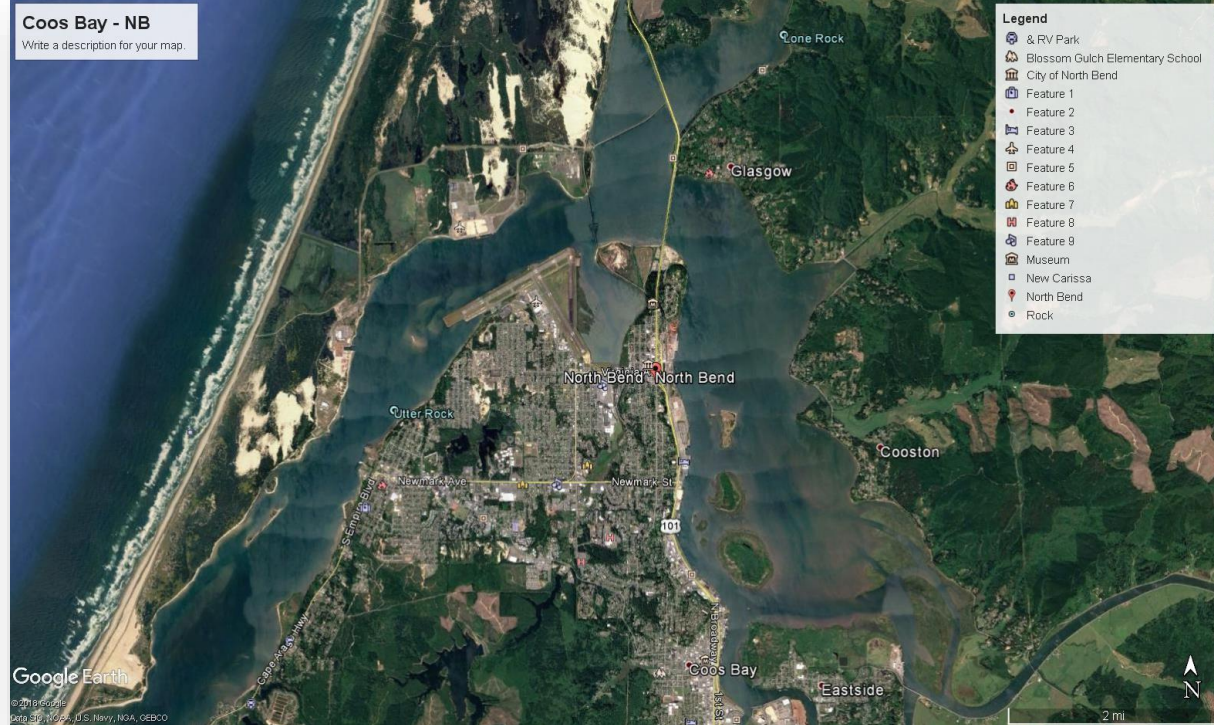


¹ This includes Washington, Oregon and Idaho in the U.S. and British Columbia (BC), Canada.

² Published and posted at www.nwga.org, November 2009.

Coos Bay - NB

Write a description for your map.



Wauna showing ships

Write a description for your map.



Google Earth

Opportunities for Canadian West Coast LNG export – changes in December 2018

- December 19, 2018, DOE issued a policy statement to allow gas sourced in the U.S. can now be processed and exported from any LNG terminal in Canada, including to non-FTE countries.

No Action Alternative

JPEP States: “Whether the LNG Terminal is built or not, the site will likely be used for industrial purposes resulting in environmental impacts that could be similar to, or greater than, those that would be associated with the Project. The No Action alternative would not eliminate the potential for environmental impacts as development of the proposed site for the LNG Terminal or an alternate development concept would likely occur—although possibly later in time, thereby delaying any environmental impacts.”

No Action Alternative

JPEP States: “Whether the LNG Terminal is built or not, the site will likely be used for industrial purposes resulting in environmental impacts that could be similar to, or greater than, those that would be associated with the Project. The No Action alternative would not eliminate the potential for environmental impacts as development of the proposed site for the LNG Terminal or an alternate development concept would likely occur—although possibly later in time, thereby delaying any environmental impacts.”

LWV comments: “The opportunity for other uses of this area are many, and projects and enterprises with smaller footprints that do not require the massive dredging and filling would be likely.”



Alex Derr Photo

Public Engagement Regarding our Public Natural Resources

- Get involved – Be informed - Join LWV
- Review FERC environmental assessment expected soon
- Celebrate the opportunities for fishing, boating, recreation and clean air with renewable resources
- Protect the environmental values and sustainability of the region
- Engage to revise and update the CB estuary management plan

