



Westway and Imperium Projects EISs
c/o ICF International
Attn: D. Butorac, B. Shay
710 Second Avenue, Suite 550
Seattle, Washington 98104

November 18, 2015

Dear Ms. Butorac and Mr. Shay,

Thank you for the opportunity to comment on the draft Environmental Impact Statements (EISs) for two terminal expansion projects at Terminal 1 at the Port of Grays Harbor in Grays Harbor County, Washington. The Westway Terminal Company LLC (Westway) and Imperium Terminal Services (Imperium) projects involve the expansion of existing industrial facilities to store and handle crude oil. In addition to the impacts anticipated during construction, ongoing impacts due to additional storage tanks, rail expansions, and increased frequency of oil transport by rail and vessel are expected.

Audubon has a long history with the protection of critical habitat in Grays Harbor. Our chapters in Thurston County (Black Hills Audubon Society) and Pierce County (Tahoma Audubon Society) were directly involved in the creation of the Grays Harbor Wildlife Refuge back in the 1980s. Other chapters from around the state, including Seattle Audubon Society, supported the establishment of a wildlife refuge in Grays Harbor. In fact, our Grays Harbor chapter was started, with help from renowned environmental activist Hazel Wolf, to protect the hundreds of thousands of shorebirds that stop each year on their way to and from nesting and breeding grounds in Alaska.

Audubon Washington is an organization dedicated to the protection of birds and their habitats. We have 25 active chapters here in Washington, representing over 21,000 members. We also have three science and nature centers located in Seattle, Sequim and Tacoma that serve over 35,000 people each year.

Grays Harbor is widely recognized as an estuary of vital ecological significance in Washington State and in the Pacific Flyway at large. As the fourth largest estuary on the West Coast, Grays Harbor supports a diverse array of birds and marine wildlife, including extraordinary numbers of migratory shorebirds and other marine birds; a vibrant fishing, crab, and shellfish industry; and a tourism and recreation industry reliant on a clean harbor and a bountiful ecosystem. As such, Grays Harbor and other nearby coastal areas play a fundamental role in supporting both ecological and human well-being in the region. A recent assessment of natural capital in Grays Harbor County placed the value of the County's nearshore ecosystems somewhere between \$313 million and \$3.1 billion dollars per year.ⁱ

The EISs evaluated the risk of small, medium, and large spill scenarios at the terminals, along the rail line and from vessels in terms of the likelihood of occurrence, likelihood of reaching water, and potential environmental impacts. Under this assessment, a number of spill scenarios were identified in which the likelihood of a spill occurrence is moderately likely to likely, and the potential environmental impact is moderate to severe. We have concluded that the likelihood of a spill is high, and that the environmental risks posed by the project may result in unavoidable and significant impacts to environmental resources in Grays Harbor and the Chehalis River floodplain, including ESA listed species. For this, and other reasons described below, **we are in opposition to both the Imperium and Westway expansion projects.**

As an organization dedicated to birds, our comments are focused on concerns about impacts to birds or resources important to birds within Grays Harbor, including habitat and food resources. Given the significance of Grays Harbor as stopover habitat for migratory shorebirds and waterfowl within the Pacific Flyway, we are dismayed that the EISs have failed to adequately assess the potential impacts of the proposed projects on resident and migratory bird populations. As a result, **insufficient information is available to analyze the potential environmental impacts, appropriate mitigation measures have not been explored, and alternatives have not been assessed.**

EIS content and accuracy

Section 3.5.3.1 Information Sources

It appears as though the SEPA co-leads on the EISs have put forth a minimum level of effort when it comes to identifying animals and important habitat areas in the study area. Information queries were limited to establishing the occurrence of state and federal species of conservation concern and the location of state and federal protected areas. Inquiries included the Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species Database; the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation online planning tool; and the National Oceanic and Atmospheric Administration (NOAA) Fisheries website. The Washington Natural Heritage Program (WNHP) was consulted regarding the location of rare plant species, high-quality native plant communities, and Washington Natural Area Preserves.

The EISs failed to consider information sources from the scientific literature, online data repositories such as eBird, traditional ecological knowledge, and no baselines studies were conducted. The EISs also failed to note that in addition to its status as a site of hemispheric importance for shorebirds (www.WHSRN.org), **Grays Harbor Estuary also supports six state-level Important Bird Areas (IBAs)** (see attached figure). Important Bird Areas are sites that provide essential habitat for one or more species of birds; sites are ranked as Global, Continental, or State

level IBAs, depending on their significance. Grays Harbor also is considered one of the top destinations nationwide to view birds.

In their May 27, 2014, Scoping Comments, WDFW recommended “A series of status determinations for key fish and wildlife populations in the Grays Harbor and nearshore Pacific Ocean waters to establish a baseline prior to the expansion of these facilities.”ⁱⁱ The key populations would include forage fish, such as anchovy, herring, and smelt; nearshore and juvenile rockfish; nearshore flatfish; seabirds and shorebirds.” By choosing not to complete these status determinations, **you have provided no means for evaluating the potential impacts to these populations** should the project be approved.

Analysis of Impacts

Section 3.5.5.1 No-Action Alternative

According to the Westway and Imperium EISs, the applicant(s) would continue to operate their existing facilities as described under *Existing Operations* under the no-action alternative. However, the EISs suggest that no evaluation of the no-action alternative is necessary because other types of future development could result in impacts similar to those described for the proposed actions.

“Although the proposed action would not occur, it is assumed that increased growth in the region would continue under the no-action alternative, which could lead to development of another industrial use at the project site within the 20-year analysis period (2017-2037). Such development could result in impacts similar to those described for the proposed action.”

The EISs have failed to describe the baseline conditions expected under the no-action alternative and in doing so have failed to provide the information necessary to evaluate the impacts of the proposed actions. The EISs offer no evidence of comparable pending industrial projects and the City of Hoquiam recently passed an ordinance preventing any future development of crude oil storage facilities, indicating that the expectation for comparable development is without grounds.

Section 3.5.5 What are the potential impacts on animals?

The potential ways and pathways through which the proposed projects could affect birds and other wildlife are complex, including direct harm through contact with contaminants or vessel or train traffic; indirect effects through degradation of food and habitat; and the additive effects of long-term exposure to increased vessel traffic, chronic, low-level contaminant exposure, changes to mortality risk, and alteration of movement patterns. In spite of this complexity, the EISs have considered a relatively narrow range of potential mechanisms:

- Noise (construction, rail traffic, vessel transit);

- Spills (facility, train, vessel);
- Introduction of harmful aquatic species (ballast water); and
- Loss of habitat (vessel wake, vessel shade).

Furthermore, the assessment of these impacts does not include the full suite of animals potentially affected. Under the mechanisms listed above, the EISs have failed to consider:

- **Noise:** the potential impacts of construction noise on active bald eagle and great blue heron nests, located approximately one mile from the proposed site.ⁱⁱ The EISs fail to reference the known occurrence of these two species, stating instead:

“...noise from pile driving is anticipated to be greater than 100dBA sound exposure level within 0.85 mile of the project site...no special-status species has been recently documented in the study area and although there is suitable habitat for the bald eagle, blue heron, and peregrine falcon, it is unlikely that these species would be found near the project site. Regardless, if any terrestrial animals are present near the site during pile driving, they could be affected during construction.” (3.5-19)

- **Spills:** in addition to the large spills that are expected to have catastrophic impacts on local ecosystems, contaminants associated with routine operations at the terminals and small-scale spills from vessel traffic are likely to increase under the proposed projects. Short and long-term impacts from oil spills and surface water run-off containing petroleum-related compounds have not been assessed. According to the Department of Ecology’s Puget Sound Toxic Assessment, these compounds:ⁱⁱⁱ

“...cause problems in many animals and plants. They can poison fish, kill fish eggs, and hinder the feeding and shell-formation of shellfish and other invertebrates. They can damage the skin, lungs, liver, and kidneys of birds and mammals and make them vulnerable to deadly infections by suppressing the immune system. Petrochemicals can reduce the reproductive success of fish, invertebrates, birds, mammals, and even plants, leading to population declines.”

The Assessment goes on to explain that copper, which is released into the environment through brake pad wear:

“...interferes with salmon’s sense of smell, which reduces their ability to avoid predators, find their way back to their birthplace to spawn, and find mates.”

And that polycyclic aromatic hydrocarbons (PAHs):

“...are released by oil leaks, creosote-treated wood, wood smoke, and vehicle exhaust. PAHs that settle in marine sediments cause tumors in marine flatfish, and PAHs from oil spills cause heart defects in young herring and other fish species.”

The effects of petrochemicals and other industrial chemicals on birds are known to range from indirect impacts through loss of food and habitat to mortality due to direct exposure,^{iv} immunosuppression^v and adverse reproductive effects.^{vi} Although there is evidence documenting the pathways through which these chemicals harm or kill birds, assessing the effects of oil pollution on bird populations remains a significant challenge.^{vii} This is due in part to the wide-ranging migratory patterns of birds and the difficulty of documenting how mechanisms such as sub-lethal exposure to petrochemicals result in population decline. Nevertheless, significant mortality events have been reported as a result of large spills such as the *Exxon Valdez* oil spill in Prince William Sound, Alaska, where an estimated 250,000 to 375,000 birds were killed,^{viii} the 1996 *Sea Empress* spill off the coastal of England,^{ix} and the 1991 Arabian Gulf oil spill,^x **and these numbers do not begin to address sub-lethal effects and loss of food and habitat.**

Because the EISs have failed to evaluate the potential impacts to birds (and their prey base) of both acute and long-term exposure to petrochemicals and other industrial chemicals, we have no means by which to assess the risk of significant and unavoidable impacts to marine bird species associated with the terminal expansion projects.

- **Introduction of harmful aquatic species:** The EISs recognize the potential risk that introduced aquatic species pose to the relatively pristine waters of Grays Harbor. Compared to places like San Francisco Bay and Puget Sound that have high volumes of shipping traffic, the Harbor has had a lower degree of exposure to non-native species. Nevertheless, invasive non-native species have had an effect in coastal Washington, causing considerable economic and ecological impacts. The recent *Spartina alterniflora* invasion of Willapa Bay and other coastal areas is a good example of an invasive species that degraded foraging habitat for birds and caused considerable economic impacts for the shellfish industry.^{xi} The subsequent use of herbicides to control this and other invasions have likely also had indirect effects on ecosystem health in the Bay and nearshore ecosystems. The additional ballast water monitoring requirements that have been recommended by the EISs do not address the potential ecological and economic costs of new harmful aquatic species invasions. This cost should be assessed under the final EISs.
- **Loss of habitat:** The degree to which changes in the volume and frequency of vessel wakes may impact bird nesting and roosting habitat in the Harbor have not been evaluated. If vessel wakes erode or inundate intertidal beaches or islands such as Goose and Sand Islands in North Bay, Whitcomb, Grass, and Laidlaw Islands in South Bay, or Rennie Island near the mouth of the Chehalis River, important nesting and roosting habitat may be lost. The vulnerability of known avian roosting and nesting locations within the Harbor and along the shore should be assessed, along with the potential for loss of habitat or direct mortality of eggs or young. ESA listed species such as the Snowy Plover and Streaked Horned Lark should be given particular consideration.

A number of potential impacts to animals were not assessed in the EISs, including:

- Changes to movement patterns due to artificial lighting;
- Impacts due to vessel traffic; and
- Additive/cumulative effects.

Changes in avian movement patterns: artificial lighting

According to Chapter 3, Affected Environment, Impacts, and Mitigation, “the proposed rail unloading and vessel-loading facilities would require some additional lighting for night time operations....Operating hours are not limited to daylight hours; increased light at the dock for night loading is anticipated to occur up to an estimated 200 nights per year.”

The effects of artificial light on seabirds are the subject of increasing conservation concern. BirdLife International, a global partnership of organizations dedicated to bird conservation, summarizes what is currently known about the sensitivity of nocturnal seabirds, including many of the Procellariiformes (shearwaters, petrels and albatross) to nighttime artificial light.^{xii} In addition to causing disorientation among foraging individuals, particularly during poor weather and the new moon, young burrow-nesting seabirds are vulnerable to disorientation during their first flight to sea. Both coastal and at-sea light pollution can attract seabirds and disorient them to the point of exhaustion and death. Recent reports of large numbers of Sooty Shearwaters foraging in Grays Harbor at night highlight the vulnerability of local nocturnal foragers to artificial light. The EISs have failed to evaluate the potential for nighttime lighting to impact seabirds, including listed species that migrate through the region and federal and state listed Marbled Murrelets, which regularly travel between marine and coastal forest habitats during the breeding season, April 1 through September 23.

Changes in avian movement patterns: vessel traffic

According to the Department of Ecology’s Grays Harbor Geographic Response Plan, “Grays Harbor has experienced significant economic growth in recent years, accompanied by increased tanker and cargo transport. Vessel arrival data shows more than a 200% increase in the arrival of tankers and cargo vessels since 2006.”^{xiii} Not only have the EISs failed to assess the potential impacts of increased vessel traffic on marine birds under the current proposal, the cumulative impacts of the proposed projects in conjunction with this recent increase have not been evaluated.

Little empirical research exists documenting the effects of shipping vessel traffic on marine birds,^{xiv} though somewhat more work has been done to evaluate the effects of recreational boat traffic.^{xv} We know of one study that assessed the response of scoter, loon and eider species (many of which occur in Grays Harbor) to shipping traffic in the German North Sea. Researchers in this study noted strong behavioral responses to vessel traffic and altered distribution patterns in relation to shipping lanes.^{xvi} Furthermore, species-specific flight reactions to ships varied, suggesting that a one-size-fits-all approach to quantifying the impacts of vessel traffic is not appropriate. Although vessel traffic is not expected to be a significant source of direct mortality to marine birds, the additive effects of lost foraging time and increased energetic output may ultimately contribute to a reduction in fitness for sensitive species, particularly if vessel traffic is concentrated in high quality foraging areas. Marbled Murrelets disturbed by boat traffic in Alaska were observed to

have reacted to the disturbance by swallowing the fish being held in their beaks for delivery to their young.^{xvii} Juveniles in this study showed a greater sensitivity to boat traffic than adults. For ESA listed species that forage in the Harbor such as the Marbled Murrelet, the potential ways that increased vessel traffic will impact marine bird behavior must be evaluated and the location of shipping lanes in relation to known marine bird foraging areas should be made clear.

Additive/cumulative effects

The Westway and Imperium EISs have not assessed how the combined effects of potential changes to marine bird habitat, food supplies, chronic and acute exposure to increased levels of petrochemicals and other industrial chemicals, changes in movement patterns due to boat traffic and increased artificial lighting will impact local and migrating marine bird populations. We suggest that the applicants address this shortcoming using a community modeling approach. Ecological community modeling was used in a recent environmental assessment for the proposed Pacific NorthWest LNG project in Port Edward, British Columbia, which supports similar coastal vegetation communities and wildlife species.^{xviii} Local baseline ecological conditions were characterized using vegetation assessments and terrestrial and marine wildlife field data, allowing researchers to quantify the potential effects of changes in habitat availability on wildlife species with shared habitat requirements and ecological traits. Habitat suitability for listed species, potential changes to wildlife habitat, changes in mortality risk and potential alteration of movement patterns were evaluated under this framework.

A similar modeling approach is appropriate for the Westway and Imperium EISs and should include wildlife species that are known or are reasonably expected to occur in the project study areas and vegetation communities of known ecological significance, including eelgrass beds and saltmarsh.

Proposed Mitigation Measures

Very few mitigation measures designed to reduce impacts to animals have been proposed for the proposed projects. The three measures that have been proposed (two week cessation of vessel loading during the Grays Harbor shorebird festival, invasive species monitoring plan, underwater sound monitoring during pile-driving) are not capable of meaningfully reducing impacts to animal species.

As stated previously, it is difficult to assess the suitability of proposed mitigation measures when the environmental impacts of the proposed projects have not been adequately assessed. Potential mitigation measures that should be considered under further evaluation of impacts include:

Loss of Habitat

- Wetland habitat compensation, including restoration and compensatory activities to recover the loss of wetland function to terrestrial wildlife and marine fish and wildlife;

- Fish habitat offsetting, including compensatory activities to recover the net loss of marine fish habitat used for foraging by marine birds and mammals.

Alternation of movement

- Eliminate unnecessary skyward and seaward light projection where feasible from ships and terminal;
- Remove unnecessary illumination and reduce light intensity on ships and terminal;
- Assess spatial distribution of marine bird and mammals in relation to shipping lanes;
- Deploy trained Marbled Murrelet observers during pile-driving activities. Pile driving activities should cease if Marbled Murrelets are observed foraging within a pre-determined distance of the activity.

Exposure to petrochemicals and other industrial chemicals

- Implement regular monitoring of contaminant exposure in marine indicator species;
- Provide oil spill bird rescue and response training and coordination;
- Establish a funding mechanism to provide for oil spill cleanup expenditures on land and water.

Ballast water/non-native species

- Establish funding mechanism to ensure early response to invasive species establishment.

Additive and cumulative effects

- Conduct ecological community modeling to assess the additive effects of project impacts and the cumulative impacts of these and other changes to Port operations.

In summary, Audubon Washington and our 25 independent chapters strongly oppose the proposed Westway and Imperium terminal expansion projects and believe that significant and adverse effects to birds and other wildlife are possible and have not yet been fully evaluated.

Sincerely,



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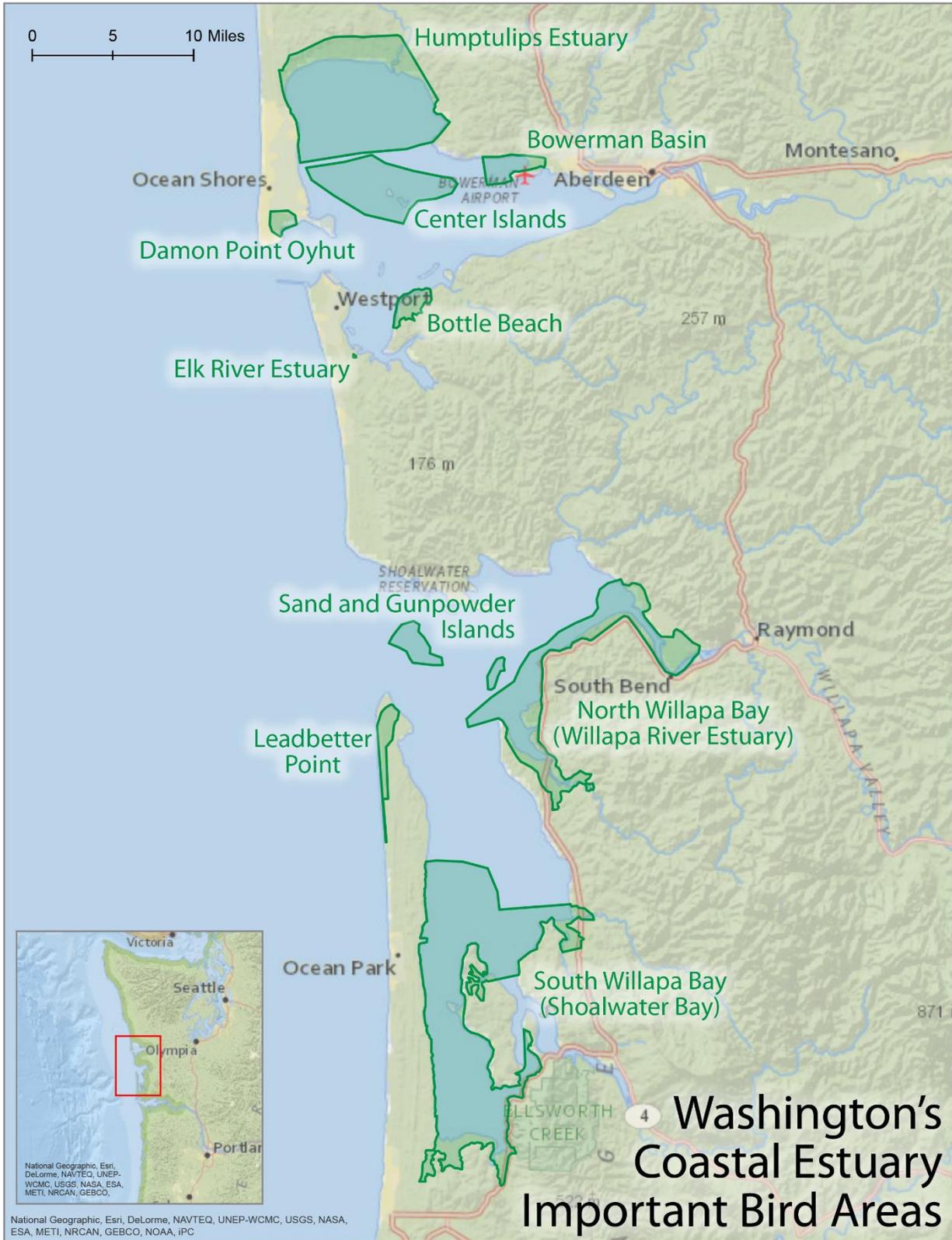
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