

**Supplement Analysis (SA)**  
for the  
**Wallooskee-Youngs Confluence Restoration Environmental Assessment**  
(DOE/EA-1974/SA-01)

**Highway wall design modifications**

Bonneville Power Administration  
Department of Energy



**Introduction**

In July 2015, Bonneville Power Administration (BPA) completed an environmental assessment (EA) and a Finding of No Significant Impact for the Wallooskee-Youngs Confluence Restoration Project (DOE/EA-1974). The project involves restoring a tidal marsh in the Columbia River Estuary in Clatsop County, Oregon, including modifying a levee to inundate historic wetlands, creating a network of tidal channels within the project site, and restoring native vegetation. BPA is funding the project; the Cowlitz Indian Tribe is sponsoring the project; and Astoria Wetlands, LLC owns the property and is conducting the restoration.

Restoration construction activities started in August 2015 and are currently underway. Through further coordination with Oregon Department of Transportation (ODOT), the design of the wall to protect Oregon State (OR) Highway 202 from potential flooding has been modified. Originally, the wall was proposed to be made of steel, as analyzed in the EA; with the revised design, the highway protection wall would be built of concrete. This SA was prepared to determine if the proposed modification to the highway protection wall is within the scope of the analysis considered in the Wallooskee-Youngs EA. It also evaluates whether the design revisions presents significant new circumstances or information relevant to environmental concerns.

**Analysis**

The proposed modifications to the highway protection wall would involve changes to the material and drainage for the highway protection wall. The highway protection wall would be built of concrete to the same specifications as the steel sheet pile wall. The height of the wall and all associated wind-wave protections such as the riprap would be maintained. Slight changes are proposed for stormwater conveyance and treatment due to drainage requirements for the concrete wall footing. Modifications to the drainage features include the addition of a road curb along OR 202 and subsurface and surface water drains through one-way valves in the wall. ODOT approved the final OR 202 protection design on July 18, 2016.

The following more specifically assesses the significance of the highway protection wall and drainage modifications relative to environmental concerns.

**Water Resources** - Impacts to water resources associated with the highway protection wall would result from both construction and long-term restoration. Construction impacts could impact water flow and sediment contribution to nearby Croasel Creek, but would be minimized by applying best management

practices to minimize sediment and control erosion, and by completing the construction during periods of low precipitation; such impacts are expected to be moderate. Long-term impacts would be to drainage and stormwater inputs, including the need to plug a cattle pass under OR 202 to prevent tidal waters from extending beyond the highway; such impacts are expected to be low and beneficial to water quality because of increased floodplain connectivity and increased site stability due to transitions to native vegetation communities. The highway protection wall would be constructed to match, if not improve, the existing protection level provided to the highway by the levee to be removed. Modification of the proposed highway protection wall to concrete rather than steel would not affect flood potential or water resources within the project site, except for one-way valves that would be installed to protect the footings of the concrete wall. These valves would not allow water to flow under the highway. As a result, the impacts resulting from the modified highway protection wall would be within the range of impacts described in the Wallooskee-Youngs EA.

**Aesthetics and Visual Resources** - The highway protection wall would result in moderate impacts to OR 202, as the wall would limit the views into the site for motorists in addition to an existing stone and tile business across the highway. Other potential viewers include tourists to the Astoria Column, local residents, and recreational and commercial boaters and kayakers. At its highest, the wall would extend 4 to 5 feet above the pavement. Changing the wall from steel to concrete would not change the height or length of the wall, which were the existing visual impacts analyzed in the EA. As a result, the aesthetic and visual impacts of the concrete wall would be similar to those of the steel wall as described in the Wallooskee-Youngs EA.

**Noise, Hazardous Waste, and Public Health and Safety** - The highway protection wall would result in moderate noise impacts for the length of construction. Consistent with mitigation identified in the EA, construction of the wall would be limited to daytime working hours. Duration, materials, and noise associated with the construction of the concrete wall are expected to be similar to the steel wall. No hazardous waste would be associated with the concrete wall, nor would the wall have any impacts on public health or safety differing from the minor beneficial impacts addressed in the EA associated with providing a barrier to wave action during large storm events and facilitating drainage of the highway. As a result, noise impacts would be similar to those described in the Wallooskee-Youngs EA.

**Transportation** - Construction of the highway protection wall would result in low impacts to OR 202 associated with increases in construction-related traffic and measures such as short-term closures of single lanes of OR 202. The Wallooskee-Youngs EA included various mitigation measures to minimize transportation impacts, including installing traffic control signs, using flaggers when needed, and locating staged equipment as far as possible from travel lanes. ODOT approved the change in materials from steel to concrete when approving the final designs in July 2016. Therefore, transportation impacts would be similar to those described in the Wallooskee-Youngs EA.

**Findings**

This SA finds that the potential impacts from the proposed design modifications to the Wallooskee-Youngs highway protection wall have been examined, reviewed, and consulted upon and are similar to those analyzed in the Wallooskee-Youngs Confluence Restoration EA (DOE/EA-1974) and Finding of No Significant Impact. There are no substantial changes in the proposed action and no significant new circumstances or information relevant to environmental concerns bearing on the proposed action or its impacts within the meaning of 10 CFR § 1021.314(c)(1) and 40 CFR §1502.9(c). Therefore, no further NEPA analysis or documentation is required.

/s/ Dave Goodman

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Concur:

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