Portland Metro Levee System
Feasibility Study

Integrated Feasibility Report and
Environmental Assessment

Appendix K - Finding of No Significant Impact (FONSI)
DRAFT

US Army Corps of Engineers
Portland District

Columbia Corridor Drainage Districts

January 2020
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DRAFT FINDING OF NO SIGNIFICANT IMPACT

Portland Metro Levee System Feasibility Study Integrated Feasibility Report and Environmental Assessment, Portland Oregon

The U.S. Army Corps of Engineers, Portland District (Corps) has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The draft Integrated Feasibility Report and Environmental Assessment (IFR/EA) dated January 6, 2019 for the Portland Metro Levee System (PMLS) Feasibility Study and Environmental Assessment (Study) addresses flood risk reduction opportunities and feasibility in Multnomah County, including areas within the Cities of Portland, Fairview, Gresham, and Troutdale. The final recommendation is contained in the report of the Chief of Engineers, (date to be added upon completion).

The Draft IFR/EA, incorporated herein by reference, evaluated various alternatives that would improve levee performance, incorporate resilience and reduce flood risk in the study area. The tentatively selected plan is the National Economic Development (NED) Plan.

This alternative seeks to address inconsistencies within the levee system to provide a more uniform flood risk throughout the study area and focuses on both internal and external sources of flooding. It includes a levee raise and other improvements to all exterior levees in PEN 1 and PEN 2 and increases levee heights at locations with low spots in MCDD and SDIC. A new floodwall would be added under the I-5 bridge. This alternative includes both structural and non-structural components, including:

- Modifications in PEN 1 Columbia Slough areas include seepage controls. In MCDD West, seepage controls at the Peninsula Slough cross levee are included. In SDIC, widening of the cross levee to Sundial Avenue is included.
- Revise and Update flood hazard and evacuation plans for Portland, Port of Portland, and Multnomah County NHMP to include flood risk information resulting from this feasibility study. Develop expanded communication and evacuation plans.
- Increase levee heights, including PEN 1 and PEN 2 along Columbia mainstem and Columbia Slough. In MCDD West, includes increase in height at Peninsula Slough cross levee and Station 511+00. Also includes raising low spots near outlet mall and the Columbia River segment of SDIC.
- Add capacity at pump stations where the need has been identified. (PEN 2 13th Avenue Intake, MCDD Pump Station 2 pumps and discharge lines).
- Includes elevation and replacement of SDIC Sandy Pump Station, and installation of redundant power sources within the system of pump stations.
- Trash Rakes replaced at MCDD-AirTrans, MCDD Pump Station 4, and MCDD Broadmoor.
• Raise Airport Way and Marine Drive so that closure structures not required. Construct a new levee parallel the PEN 1 railroad embankment. Install floodwalls along Marine Drive in PEN 1 and PEN 2.
• Develop flood risk education materials for the population at risk and visitors within the study area. Materials will be based up on flood risk information developed related to the levees and coordinated with USGS to incorporate seismic aspects, as well as emergency responders and educators to meet a broad audience.
• Install flood hazard and evacuation route signage throughout the study area including designated evacuation routes.
• Develop designated safe zones at high points within the PMLS for those that cannot evacuate from the flood-plain. Would be implemented in conjunction with Measure 6.
• Implementation of any required environmental or cultural resources compensatory mitigation and associated monitoring and mitigation area adaptive management plan, when applicable and appropriate.

In addition to a “no action” plan, a total of four action alternatives were considered, and three were evaluated in detail. Each alternative included both structural and non-structural flood risk reduction measures. The alternatives included Alternatives 3, 4, and 5, each including components of levee widening, seepage controls, increasing the I-5 floodwall, and addressing pump station deficiencies, along with non-structural measures such as creating safe zones, improving evacuation routes, and increasing education of flood risks. Alternatives were evaluated in Sections 4 and 5 of the draft IFR/EA.

For all alternatives, the potential effects were evaluated, as appropriate. A summary assessment of the potential effects of the tentatively selected plan are listed in Table 1:
**Table 1: Summary of Potential Effects of the Tentatively Selected Plan**

<table>
<thead>
<tr>
<th>Category</th>
<th>Insignificant effects</th>
<th>Insignificant effects as a result of mitigation*</th>
<th>Resource unaffected by action</th>
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</thead>
<tbody>
<tr>
<td>Aesthetics</td>
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<tr>
<td>Air quality</td>
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<tr>
<td>Aquatic resources/wetlands</td>
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<tr>
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<td>Fish and wildlife habitat</td>
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<tr>
<td>Threatened/Endangered species/critical habitat</td>
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<tr>
<td>Historic properties</td>
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<tr>
<td>Other cultural resources</td>
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<tr>
<td>Floodplains and water resources</td>
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<td>Hazardous, toxic and radioactive waste</td>
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<tr>
<td>Hydrology</td>
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<td>Land use</td>
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<tr>
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<td>Public infrastructure and utilities</td>
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<td>Public services, health and safety</td>
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<td>Recreation</td>
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<td>Socio-economics</td>
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<td>Soils</td>
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<tr>
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<tr>
<td>Climate change</td>
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All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the tentatively selected plan and all other action alternatives. Avoidance and minimizations measures as detailed in the draft IFR/EA will be implemented, if appropriate, to minimize impacts. These are described in the table above.
<table>
<thead>
<tr>
<th>Resource Category</th>
<th>Avoidance and Minimization Measures</th>
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</thead>
</table>
| Physical Resources| • Prepare and implement an erosion control plan, consistent with National Pollutant Discharge Elimination System (NPDES) requirements and Section 401 consultation.  
• Create a Sediment Control Plan, as needed, include daily monitoring during in-water construction, regular inspection, and recording control measures.  
• Use sediment barriers, such as silt fences, straw matting, and straw wattles.  
• Minimize the area of disturbance, use minimum areas for staging, clearing, and grubbing.  
• Use water trucks to apply water to control dust, as needed.  
• Apply mulch or straw, or reseed exposed soil areas to reduce erosion and dust after completing work within a given area.  
• Sequence construction to minimize soil exposure and erosion potential.  
• Decompact decommissioned access roads through disking and replanting. |
| Water Resources    | • Sediments for re-contouring and restoration activities would be obtained on-site to the degree possible.  
• Staging areas, storage sites (fuel, chemical, equipment, and materials), and potentially polluting activities would occur in existing parking lots or open areas. These sites would be identified and secured and would be located 150 ft. or more from any natural water body or wetland, or on an adjacent, established road area in a location and manner that would preclude erosion into or contamination of the stream or floodplain.  
• A Spill Prevention Control and Countermeasures (SPCC) Plan would be developed.  
• Only use hydraulic fluids approved for work in aquatic environments.  
• Heavy equipment would be washed before delivery to project site to remove oils, fluids, grease, weed seeds, etc.  
• Heavy equipment would be regularly inspected and cleaned.  
• All non-emergency maintenance of equipment would be performed off-site.  
• All waste (solid waste, hazardous materials, etc.) would be disposed off-site as regulated by the state.  
• All equipment, materials, supplies, and waste would be removed from project site when complete.  
• Activities would be scheduled during low flows or periods of no flow, as feasible.  
• Prepare and implement an erosion control plan, consistent with NPDES requirements and Section 401 consultation.  
• CWA permit-specific protection measures would be applied.  
• Erosion control measures would be applied to construction, staging, and access areas (e.g., silt fence or straw wattle and turbidity curtains installed where needed). If in-water work is required at pump stations, areas of impact would be isolated from aquatic areas to protect water quality and biological resources.  
• Machinery for in-water work would be operated from atop levees or within adjacent out of water areas as much as possible. |
| Air Quality/Climate Change | • Apply water from water trucks to excavation areas, access and haul roads, and staging areas as needed to control fugitive dust.  
• Set a low speed limit on access roads to reduce dust mobilization. |
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| **Noise**         | • Construction near residences would be limited to daylight hours, as applicable  
|                   | • Additional methods of sound dampening or shielding such as noise barriers would be evaluated during construction planning and implemented to the extent practicable.  
|                   | • Construction phasing would be reviewed to minimize the duration of particularly noisy activities and the overall duration of construction near residences. |
| **Utilities**     | • During the project design phase, the designers will coordinate with utility providers to identify the locations of conveyance pipelines, communications cables, and other utility infrastructure at all locations where ground-disturbing actions will occur.  
|                   | • Design plans will show the locations of all utility infrastructure and specify measures to ensure that they are protected in place or relocated. |
| **Biological Resources** | • Staging and refueling areas would be established at least 150 ft. away from wetlands and other waterbodies to the extent possible.  
|                   | • To control spread of non-native species, construction equipment would be washed before it was mobilized, and clean fill material would be used.  
|                   | • Replanting with native seed mix would occur as rapidly as possible following the completion of construction. Plantings would be mulched upon completion if needed.  
|                   | • Trees removed during construction would be evaluated for replacement as feasible.  
|                   | • Pre-construction biological surveys may be conducted if determined to be necessary for ESA and MBTA species (e.g., during nesting season). Avoidance training would be provided to construction teams.  
|                   | • If present, active bald eagle nests would be avoided during the nesting season, per USFWS guidelines.  
|                   | • Operate machinery used for in-water work from top of bank to the extent possible.  
|                   | • Avoid riparian vegetation to the extent practicable during construction. |
| **Cultural Resources** | • Avoid known cultural resource sites during construction.  
|                   | • Protect any unanticipated cultural resources discovered during construction as follows:  
|                   | - Stop all work; cover and protect the cultural resource in place.  
|                   | - Notify Project Manager and Corps cultural resources specialist immediately.  
<p>|                   | - Implement protection or other measures as instructed by Corps cultural resource specialist. |</p>
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| **Hazardous Materials** | • A description of hazardous materials to be used, and handling procedures would be available on-site.  
• Written procedures for notifying environmental response agencies would be posted at the work site.  
• Spill containment kits with written instructions for cleanup and disposal adequate for the types and quantities of materials used at the site would be available at the work site.  
• Workers would be trained in spill containment procedures and would be informed of the location of spill containment kits.  
• Workers would wear protective clothing when working with potentially hazardous materials.  
• Any waste liquids generated at the staging areas would be temporarily stored under an impervious cover until they could be properly transported to and disposed of at a facility that is approved for receipt of hazardous materials. |
| **Land Use, Planning and Zoning** | • Consider reconfiguring golf courses affected by levee expansion to allow full use of remaining area |
| **Socioeconomics/Environmental Justice** | • To the extent practicable, design selected alternative to avoid disproportionate effect on low-income communities found in Census Tract 73.  
• Design traffic control plan to protect residents’ access to uninterrupted transportation services.  
• Apply water to dirt surfaces as needed to control fugitive dust. |
| **Aesthetics/Visual Resources** | • Reseed and plant disturbed areas with appropriate native species and control weeds immediately following construction.  
• Use water trucks to apply water, as needed, to the construction area for dust control.  
• Protect and retain native riparian/wetland vegetation, to the extent practicable, by avoiding construction activities in these areas.  
• Minimize machinery present and the size of the disturbance area, to the extent practicable.  
• Clean-up site and remove equipment, as practical, during non-construction periods. |
| **Recreation** | • Maintain access to as many recreation features as possible during construction.  
• Incorporate recreation access information and any needed closures in the traffic control plan.  
• Install signs to inform the public of the lengths of closures and alternate routes for bicycles, or locations of birdwatching, hiking, or river access.  
• Ensure that levee widening construction is closely coordinated with adjacent businesses such as golf course management to avoid or minimize closures |
| **Public Health and Safety** | • The traffic control plan will identify measures to ensure uninterrupted access of emergency response entities to the study area. |
Avoidance and Minimization Measures

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| Transportation and Infrastructure | • Coordinate with local transportation agencies as appropriate to develop a traffic control plan.  
• Include information regarding closures, detours, and traffic control measures in traffic control plan.  
• Use traffic controls such as flagging, reduced speed limits, signage, and barriers to route traffic through affected areas and at truck entry/exit points.  
• Coordination with utility providers to locate pipelines, communications cables, and other utility infrastructure in the study area. |

MITIGATION REQUIREMENTS

The tentatively selected plan may result in unavoidable adverse impacts to an estimated 0.75 acres of aquatic resources mostly associated with water features within golf courses. At this stage in the project a jurisdictional wetland delineation has not been completed. A delineation will be performed prior to finalizing the feasibility study and will be used to evaluate the need for mitigation. The U.S. Army Corps of Engineers would mitigate for permanent unavoidable losses of jurisdictional wetlands as required and appropriate.

ENDANGERED SPECIES ACT

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers is evaluating the following federally listed species and their designated critical habitat. The USFWS and NMFS consultation is on-going. This section will be updated at the conclusion of the consultation.

- Streaked Horned Lark (*Eremophila alpestris strigata*)
- Bull Trout Columbia River DPS (*Salvelinus confluentus*)
- Eulachon Southern Distinct Population Segment (DPS) (*Thaleichthys pacificus*)
- North American Southern DPS Green Sturgeon (*Acipenser medirostris*)
- Columbia River Chum Salmon ESU (*O. keta*)
- Lower Columbia River Chinook Salmon Evolutionarily Significant Unit (ESU) (*Oncorhynchus tshawytscha*)
- Upper Columbia River Spring-Run Chinook Salmon ESU
- Upper Willamette River Chinook Salmon ESU
- Snake River Spring-Run/ Summer-Run Chinook Salmon ESU
- Snake River Fall-Run Chinook Salmon ESU
- Lower Columbia River Coho Salmon ESU (*O. kisutch*)
- Lower Columbia River Steelhead DPS (*O. mykiss*)
- Middle Columbia River Steelhead DPS
- Upper Columbia River Steelhead DPS
• Upper Willamette River Steelhead DPS
• Snake River Basin Steelhead DPS
• Snake River Sockeye Salmon ESU (*O. nerka*)

**NATIONAL HISTORIC PRESERVATION ACT**

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers will make a determination on the effect of the tentatively selected plan to historic properties. Consultation with the State Historic Preservation Officer (SHPO) and tribes is ongoing. Once a determination is made, the outcomes of consultation will be included in the FONSI at the final report stage.

**CLEAN WATER ACT SECTION 404(B)(1) COMPLIANCE**

Pursuant to the Clean Water Act of 1972, as amended, the discharge of dredged or fill material associated with the tentatively selected plan has been found to be compliant with section 404(b)(1) Guidelines (40 CFR 230). The Clean Water Act Section 404(b)(1) Guidelines evaluation is found in Appendix J of the draft IFR/EA.

**CLEAN WATER ACT SECTION 401 COMPLIANCE**

**401 WQC PENDING**: A water quality certification pursuant to section 401 of the Clean Water Act will be obtained from the Oregon Department of Environmental Quality prior to construction. All conditions of the water quality certification will be implemented in order to minimize adverse impacts to water quality.

**OTHER SIGNIFICANT ENVIRONMENTAL COMPLIANCE**

**FISH AND WILDLIFE COORDINATION ACT**

**FWCA COORDINATION ACT REPORT PENDING**: The Corps is coordinating with USFWS and NMFS for compliance with the FWCA. Coordination and all findings with these agencies will be summarized in a Fish and Wildlife Coordination Act Report.
FINDING

Technical, environmental, economic, and cost effectiveness criteria used in the formulation of alternative plans were those specified in the Water Resources Council’s 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on this report, the reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the recommended plan would not cause significant adverse effects on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

__________________________________ ___________________________________
Date Aaron L. Dorf
Colonel, Corps of Engineers
District Commander