UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
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OFFICE OF
WATER AND WATERSHEDS

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

To all interested government agencies, public groups, and individuals:

In accordance with the Environmental Protection Agency procedures for complying with the National Environmental Policy Act (NEPA) at 40 CFR Part 6, EPA has completed an environmental review of the following proposed action:

City of Longview Mint Farm Regional Water Treatment Plant

Longview, Cowlitz County, Washington

EPA ROLE AND RESPONSIBILITY

As a recipient of EPA Special Appropriation Act grant funds, the proposed Longview Mint Farm Regional Water Treatment Plant is subject to NEPA compliance as required under EPA's regulations for implementing the procedural provisions of NEPA at 40 CFR Part 6.

BACKGROUND

Approximately 47,500 people within and around the City of Longview, Cowlitz County, Washington, receive their drinking water from the Regional Water Treatment Plant (RWTP) located on the shore of the Cowlitz River in Longview. The RWTP is jointly owned by the City of Longview (City) and the Cowlitz County Public Utility District (PUD). The RWTP was originally constructed in 1945, and has undergone capacity expansions in 1960 and 1980 and a regulatory upgrade in 1998. The plant experiences regular mechanical and structural failures due to ageing facilities and poor intake water quality from the Cowlitz River, the source water for the RWTP. Following the eruption of Mount St. Helens in 1980, the sediment load in the North Fork Toutle and Cowlitz Rivers increased dramatically due to the massive quantities of earth, mud, and debris released from the eruption and deposited within nearby river valleys and drainages. In an effort to capture the bulk of sediment before it reached the downstream Cowlitz River, the U.S. Army Corps of Engineers constructed a sediment retention structure on the North Fork Toutle River in 1989. However, despite the sediment retention structure, a significant amount of sediment still reaches the lower Cowlitz River. Heavier sediments settle out in front of the current RWTP intake structure in the Cowlitz River, threatening to leave the intake structure dry during low flow periods. Lighter sediments remain suspended and are carried into the treatment plant by the intake pumps. The intake screens fail regularly due to the weight of accumulated sediment, and all four intake pumps failed in just seven years due to sediment wear and plugging of the system.

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The high sediment conditions in the Cowlitz River combined with the deteriorating state of the RWTP limit the treatment capacity of the RWTP throughout the year. In the summer, maximum daily demand regularly exceeds reliable plant capacity, and by 2011, the RWTP is expected to be deficient in both its reliable capacity and maximum production capacity. During a 2006 winter storm event, 10,000 pounds per day of suspended sediment was carried into the RWTP, dropping the production rate to 5 million gallons per day (MGD) in order to meet applicable drinking water quality standards. The average daily demand for the RWTP is 6.1 MGD.

In 2005, the City and Cowlitz County PUD began investigating alternatives to improve the reliability of its drinking water supply and meet the needs of a growing community. After extensive testing and evaluation, the City has determined that the best solution is to replace the existing surface-water RWTP with a new RWTP which uses groundwater resources as the facility's source water. Using groundwater as the source water for the new RWTP will alleviate many of the problems currently facing the existing RWTP. It is estimated the project will cost between $31,000,000 and $49,000,000, and will take approximately 20 months to construct. EPA will be providing approximately $956,000 to the project with funds from two Special Appropriations Act grants.

PURPOSE AND NEED OF ACTION

The purpose of the proposed action is to replace the surface-water RWTP located on the shore of the Cowlitz River with a facility that is capable of providing reliable and safe drinking water to the community. The need for the proposed project is necessitated by the ageing and failing state of the current RWTP, and the need to replace the Cowlitz River as the drinking water source for the community.

ENVIRONMENTAL ASSESSMENT

In accordance with NEPA regulations at 40 CFR Part 1508.13, the findings of the proposed project's Environmental Information Document (EID) are incorporated herein by reference (*City of Longview Mint Farm Regional Water Treatment Plant Part 3 Preliminary Design Report, Environmental Permitting, May 2010*) and the EID been accepted by EPA as the project's Environmental Assessment (EA). The EID contains a detailed description of the preferred alternative (proposed action), no action alternative, and alternatives considered but rejected, as well as the affected environment, environmental consequences, and mitigation measures for the proposed project.

PREFERRED ALTERNATIVE (PROPOSED ACTION)

The preferred alternative involves the construction of a new RWTP which uses deep groundwater resources as source water for the facility, and installation of a new transmission main to connect the new RWTP to the existing water distribution system and community reservoir. The new RWTP and transmission main will be constructed concurrently so that operations will be able to transition to the new RWTP once construction is complete.

Mint Farm Regional Water Treatment Plant

The new RWTP will be located on an approximate 10-acre site located in the south-central portion of the Longview Mint Farm Industrial Park (Mint Farm). The Mint Farm is located in the western portion of Longview approximately ¾ of a mile northeast of the Columbia River. Until the 1970's the Mint Farm area was used for agricultural purposes, but has since been developed as a public-private partnership consisting of 335 acres of developed property and approximately 100 acres of public open space and rights-of-way. The new RWTP will consist of the following major components:

- two backwash storage tanks, with the potential to add a third tank in the future
- an office and treatment building
- a filter pipe gallery and future gallery expansion area
- nine pressure filter tanks
- standby generator and fuel tank
- three dewatering Geotubes ®
- four groundwater wells, each capable of pumping approximately 4,000 gallons per minute, with the potential to add two additional wells in the future
- four groundwater well houses located adjacent to each well

Most of the construction activities will take place at the existing site grade. Paved access roads and parking areas will be constructed around the perimeter of the RWTP. Gravel access roads will be constructed to each of the proposed groundwater wells and the area around the filter tanks and dewatering Geotubes ® will also be covered with gravel. Yard piping will lead from the groundwater wells to the water treatment building. Approximately 1.8 acres of new impervious surface will be created on the 10-acre site.

The groundwater treatment process includes nine greensand filters and various chemical treatment systems, including hypochlorite, sodium hydroxide, and fluorosilicic acid. Test wells indicate that groundwater quality in the area is sufficient for treatment to potable standards and that the volume of water available from the aquifer is sufficient to meet maximum daily water demands within the Longview and Beacon Hill service areas through 2059.

Water Transmission Main

A new water transmission main is proposed to connect the Mint Farm RWTP to the existing distribution system and community reservoir. Approximately 6,000 lineal feet of 30-inch ductile iron pipe is proposed for the transmission main. In addition, a 12-inch spur from the water main will connect with an existing water main running along Weber Avenue. It is estimated that the invert elevation of the 30-inch-diameter transmission main will be approximately 6 ft below the existing site grade and that 3 ft of cover will be provided. The transmission main alignment generally heads east from the RWTP to the Weyerhaeuser Railroad right-of-way, then north between the right-of-way and the mitigated wetland (located in the central eastern and western portions of the Mint Farm) to a connection with an existing 20-inch-diameter main, which is located near the intersection of Olive Way and Ocean Beach Highway. The transmission main traverses mainly undeveloped areas, and there are few utility crossings

and interferences anticipated for the project. When following the railroad tracks, the transmission main will be installed just outside the toe of the railroad tracks, within the Weyerhaeuser right-of-way, between a gas main and the mitigated wetland. Utility crossings are anticipated at Weber Avenue.

NO ACTION ALTERNATIVE (NO BUILD ALTERNATIVE)

Under the No Action Alternative, the City and County would not construct a new groundwater RWTP on the Mint Farm site. The City and County would instead continue to rely upon the Cowlitz River as the source water for the existing RWTP and would continue to experience ongoing mechanical and process failures associated with the high sediment load in the river. Due to the high sediment load of the Cowlitz River, the existing RWTP would continue to experience ongoing mechanical and process failures, requiring continual upgrades and repairs.

OTHER ALTERNATIVES CONSIDERED BUT REJECTED

The City and County evaluated several alternatives to improve the reliability and long-term capacity of its water supply. The first alternative considered was to repair and replace existing equipment to improve sediment removal and extend the life of the existing plant. However, even with minor upgrades, the maximum production capacity would be limited to 15 MGD and would not be able to provide capacity for growth to meet the community's future needs. The second alternative considered involved major rehabilitation and expansion of the existing RWTP and Cowlitz River intake structure. Construction costs and schedule are substantial due to the need to maintain operation of the plant and meet water demand throughout construction. However, without a feasible, reliable, and long-term solution to control the large sediment load of the Cowlitz River, these alternatives are not considered a sustainable solution and are operationally and economically impractical. Additionally, the Cowlitz River contains several threatened species under the Endangered Species Act (ESA), including four salmonids species (Chinook, chum, coho, and steelhead) and the Columbia River smelt. The Cowlitz River is also designated critical habitat for Chinook, chum, and steelhead, and meets the general definition of essential fish habitat for all Pacific Coast salmon species under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). It is likely that the in-water work required for rehabilitation of the existing facility would result in an adverse effect to these species, designated critical habitat and essential fish habitat.

ENVIRONMENTAL CROSS-CUTTERS AND COORDINATION WITH OTHER AGENCIES

As a recipient of federal funding, the proposed project is also subject to compliance with all applicable environmental cross-cutters and Executive Orders. In order to ensure compliance with applicable cross-cutters and Executive Orders, EPA and the project proponents have been in coordination with several state and federal agencies. In addition, the grantee has acquired, or is in the process of acquiring, all necessary federal, state, and local permits, approvals, and authorizations for the proposed project. The following cross-cutters and Executive Orders are applicable to the proposed project:

Endangered Species Act and Magnuson-Stevens Act

Cowlitz County contains several species listed as threatened or endangered under ESA, including the marbled murrelet, northern spotted owl, bull trout, and several anadromous salmonids species. The Cowlitz and nearby Columbia River are also designated critical habitat for several salmonid species and both meet the general definition of essential fish habitat for Pacific Coast salmon species under MSA.

However, the RWTP site is entirely located in a manufacturing zone designated as Heavy Industrial under the City's comprehensive plan. Any potential impacts from project construction would be short-term and negligible, and operation of the RWTP is not expected to result in any impacts to ESA-listed species or habitat. A field survey conducted on 2009 did not identify any ESA-listed species present at the project site. Therefore, after review of the proposed project and consideration of ESA-listed species, designated critical habitat, and essential fish habitat in the area, EPA has determined that the proposed project, as described, will have *no effect* on ESA-listed species or designated critical habitat, and will *not adversely affect* Pacific Coast salmon essential fish habitat. Consultation with the National Marine Fisheries Service and U.S. Fish and Wildlife Service will not be required at this time. There will be no new or increased discharge of pollutants, no in-water work, and standard best management practices (BMPs) for erosion and sediment control shall be binding grant conditions on the grantee.

Executive Order 11988—Floodplains Management

Executive Order 11988 requires federal agencies to evaluate the effects of their actions (funded or authorized) on floodplains. If it is determined that a federal agency action will have an impact on floodplain areas, the agency is required to consider alternatives to locating the project within the floodplain, develop mitigation for unavoidable floodplains impacts, and provide an opportunity for public review of the action.

The proposed site for the RWTP is protected from flooding by existing levees and dikes and, due to the levees, is designated as Zone X on the Federal Emergency Management Agency's Flood Insurance Rate Map—Community Panel No. 5300340005D. Zone X areas are designated as those areas protected by levees from a 100-yr flood, and do not require review under EO 11988. The small ditch area on the eastern edge of the RWTP site designated as Zone A was filled by the City during site development and is no longer considered a 100-yr flood hazard area by the City of Longview Critical Area Map.

As there will be no construction impacts within an area designated as high flood hazard, no review under EO 11988 will be required at this time.

Section 106 of the National Historic Preservation Act—Archaeological and Cultural Resources

Section 106 of the National Historic Preservation Act requires federal agencies to consider the impacts of their actions (funded, permitted or authorized) on properties listed or eligible for listing on the National Register of Historic Places. Through administration of federal grant money under the Drinking Water State Revolving Fund, the Washington State Department

of Health conducted the Section 106 review and consultation for the proposed project. As part of the review process, the DOH required the project proponents to complete an archaeological survey of the area in an effort to identify any archaeological, historic, or cultural materials that may be present on the site (*Archaeological Assessment Report for the City of Longview Regional Water Treatment Plant Project, May 3, 2010*). The survey did not identify any archaeological, historic, or cultural materials on the site, but did recommend that monitors be present during ground-disturbing construction activities due to the project's proximity to other historically significant sites. The DOH agreed with the conclusions of the survey and forwarded the results to the State Historic Preservation Office and the Cowlitz Indian Tribe for concurrence and comment. On May 27, 2010, the DOH received concurrence from the SHPO on its determination of *no historic properties affected.* Due to this determination, no additional Section 106 consultation or review will be required at this time. However, as stipulated in the Section 106 documentation, the City of Longview will be required to have a professional archaeological monitor on-site during ground-disturbing act ivies and the project proponents must adhere to the Cultural Resource Monitoring and Inadvertent Discovery Plan prepared for the project and included as an attachment to the archaeological survey.

Coastal Zone Management Act

The requirements of the Coastal Zone Management Act do not apply to this project as Cowlitz County is not considered a coastal community under Washington State's Coastal Zone Management Program.

Executive Order 11990—Wetlands

Executive Order 11990 requires federal agencies to consider the impacts of their actions on wetlands and avoid undertakings or providing assistance for new construction located in wetlands unless there is no practicable alternative or the proposed action includes all practical measures to minimize harm to wetlands. Section 404 of the Clean Water Act is the regulatory program for permitting and regulating the discharge of dredged or fill material into wetlands of the US, and the U.S. Army Corps of Engineers is the 404 permitting authority in the US. As part of the public-private Mint Farm development project, the City obtained a Section 404 permit from the US Army Corps of Engineers for filling and grading of approximately 25 acres of isolated wetlands and drainage swales located in the Mint Farm area. As part of the permitting process, two advanced compensatory mitigation sites were developed to mitigate wetland impacts associated with the Mint Farm development project. The compensatory wetland mitigation sites are in the central eastern and western portions of the Mint Farm site. Over two years, the compensatory work has created a total of 29 acres of new onsite wetlands and enhanced 22 acres of onsite wetlands. The sites are monitored every six months to ensure all the provisions of the 404 permit and compensatory mitigation plan are being met. It is not anticipated that the RWTP project will require any additional 404 permitting.

Wild and Scenic Rivers Act

There are no wild and scenic rivers located within Cowlitz County. Therefore, no wild and scenic rivers review will be required at this time.

Clean Air Act—Conformity Analysis

The project is not located in an area designated as a non-attainment or maintenance area for any pollutant listed on the National Ambient Air Quality Standards. Therefore, no general air quality conformity analysis is required at this time.

MITIGATION AND MONITORING MEASURES

The proposed project is not expected to result in any significant adverse direct, indirect, or cumulative impacts to the human environment. However, in order to ensure that any potential impacts are minimized, several mitigation measures have been proposed by the project proponent or required by permitting authorities. Implementation of the mitigation, conservation, and monitoring measures identified by the project applicant or required by permitting authorities will become binding grant conditions on the grantee. If the grantee fails to comply with the grant conditions (i.e., implement mitigation and monitoring measures committed to in the environmental review process and documentation), the responsible official within EPA may consider applying any of the sanctions specified in 40 CFR 31.43 and 40 CFR 6.206(g). In addition to the mitigation measures identified in the project's draft EA, implementation of the following mitigation measures will be binding grant conditions upon the grantee:

- Erosion control measures must be in place prior to any clearing, grading, or construction. These control measures must be effective to prevent stormwater runoff from carrying soil and other pollutants into surface water or storm drains that lead to waters of the US or state. Sand, silt, clay particles, and soil will damage aquatic habitats and are considered pollutants.
- Proper disposal of construction debris must be on land in such a manner that debris cannot enter waters of the US or state, stormdrains draining to waters of the US or state, or cause water quality degradation of US and state waters.
- During construction, all releases of oils, hydraulic fluids, fuels, other petroleum products, paints, solvents, and other deleterious materials must be contained and removed in a manner that will prevent their discharge to waters of the US and state and soils of the state. The cleanup of spills shall take precedence over other work on the site.
- Soil in stockpiles should be stabilized or protected with sediment-trapping measures to prevent soil loss. Between October 1 and April 20 all exposed areas of final grade or areas that are not scheduled for work, whether at final grade or otherwise, shall not remain exposed and un-worked for more than two calendar days. Between May 1 and September 30, no soils shall remain exposed and un-worked for more than seven calendar days.
- Clearing limits and/or any easements or required buffers should be identified and marked in the field, prior to the start of any clearing, grading, or construction.
- A permanent vegetative cover should be established on denuded areas at final grade if they are not otherwise permanently stabilized.
- Properties adjacent to the site of a land disturbance should be protected from sediment deposition through the use of buffers or other perimeter controls, such as filter fence or sediment basins.

- All types of sediment control, such as sediment ponds or traps, should be constructed as a first step in grading and be made functional before any upslope disturbance takes place.
- All temporary erosion control systems should be designed to contain the runoff from the developed two year, 24-hour design storm without eroding
- Provision should be made to minimize the tracking of sediment by construction vehicles onto paved public roads. If sediment is deposited, it should be cleaned every day by shoveling or sweeping. Water cleaning should only be done after the area has been shoveled out or swept.
- Wash water from paint and wall finishing equipment should be disposed of in a way which will not adversely impact waters of the US or state. Untreated disposal of this wastewater is a violation of State Water Quality laws and statutes and, as such, would be subject to enforcement action
- Source control BMPs such as plastic covering, mulch, temporary seeding, and phased clearing (for example) should be used to control erosion during construction. More examples of effective source control BMPs can be found in Ecology's two stormwater management manuals, *Stormwater Management for Puget Sound (1992)* and *Stormwater Management Manual for Western Washington (2001)*
- This project may require a construction stormwater permit (also known as National Pollution Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Stormwater Discharges Associated with Construction). This permit is required for projects which meet both of the following conditions:
    - one or more acres of soil surface area will be disturbed by construction activities; and
    - the site already has offsite discharge to waters of the state or storm drains or will have offsite discharge during construction.

CHANGES TO PROJECT

The EPA Project Officer shall be immediately contacted if there are any significant changes to the proposed project. EPA will then re-evaluate the proposed action, environmental conditions, and public views to determine whether to conduct a supplemental environmental review of the action and complete an appropriate NEPA document, or reaffirm EPA's original NEPA determination.

SUMMARY

An EID has been prepared for the City of Longview Mint Farm Regional Water Treatment Plant project and has been accepted by EPA as the project's EA. The EID contains a detailed description of the preferred alternative (proposed action), no action alternative, and alternatives considered but rejected, as well as the affected environment, environmental consequences, and mitigation measures for the proposed project.

Based on the conclusions of the EA and consideration of the mitigation, conservation, and monitoring measures that will be binding grant conditions on the grantee, and in accordance with the guidelines for determining the significance of proposed federal actions (40 CFR 1508.27) and EPA's criteria for initiating an Environmental Impact Statement (40 CFR 6.207)

EPA has determined that the proposed project will not result in significant adverse effects on the human and natural environment. The proposed project will meet all the requirements of applicable federal, State, and local laws, regulations, statutes, and Executive Orders, and will be consistent with the Cowlitz County Comprehensive Plan and the Growth Management Act.

As a result of the above findings and conclusions, EPA has determined that the preparation of an Environmental Impact Statement is not warranted and will not be required.

Additional copies of the EA and FONSI may be obtained by calling or writing to Jamey L. Stoddard at (206)-553-6110 or stoddard.jamey@epa.gov.

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8-13-2010
Date