

TECHNICAL MEMORADUM

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TO: Mike Rosen, City of Portland, Bureau of Environmental Services

FROM: Julie Wilson, EnviroIssues

SUBJECT: West Hayden Island Mitigation Requirements

Introduction

Development of West Hayden Island for marine cargo shipping and receiving, or other industrial or commercial uses, will likely result in discharges of material into jurisdictional waters of the United States and will subsequently trigger a Federal Action under Section 10 of the Rivers and Harbors Act (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344). Both of these authorize regulatory oversight by the U.S. Army Corps of Engineers (Corps). The Clean Water Act is jointly administered by the Corps and the U.S. Environmental Protection Agency (EPA). Major Federal actions having significant environmental impacts are required to be evaluated by the Federal action agency in an Environmental Impact Statement (EIS). Requirements for conducting the EIS are stipulated in the National Environmental Policy Act (40 CFR Sections 1500-1508).

In addition to these overarching federal laws and regulations that will be triggered by this project, there are numerous state and local requirements that will need to be addressed. The purpose of this paper is to summarize the various federal, state, and local regulations and policies that will need to be addressed to obtain the needed permits for this project, and the mitigation requirements that will need to be addressed for project execution.

What is mitigation?

Environmental mitigation, compensatory mitigation, and mitigation banking are terms used to describe projects or programs intended to offset potential impacts to an existing natural resource such as a stream, wetland, or endangered species. To "mitigate" means to make less harsh or hostile. Environmental mitigation is typically a part of an environmental crediting system established by governing bodies which involves allocating debits and credits. Debits occur in situations where a natural resource may be impaired or destroyed and credits are given in situations where a natural resource has been deemed to be improved or preserved. Therefore, when an entity such as a business or individual is likely to incur a "debit" as a result of a project

that they want to do, they are required to develop or purchase a "credit". In some cases, the entity is required to develop their "credit" on or very near the development site. In other cases, credits may be purchased from "mitigation banks" which are large mitigation projects established to provide credit to multiple parties in advance of development when such compensation cannot be achieved at the development site or is not seen as sufficiently beneficial to the environment.

Regulatory Requirements for Mitigation

Federal Requirements

Endangered Species Act

NOAA National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) use the Federal Endangered Species Act (ESA) to conserve and protect species. NMFS is responsible for protecting salmon and other ocean-migrating fish, as well as marine animals. USFWS is responsible for protecting wildlife, bird species and inland (primarily freshwater) fish such as bull trout and coastal cutthroat trout. Under Section 7 of the ESA, federal agencies must use their authorities to conserve listed species and habitats that are critical to their survival. Section 7 also requires federal agencies to ensure that their actions, including any actions they authorize, fund or carry out, do not jeopardize listed species or destroy their critical habitat. With respect to West Hayden Island, Section 7 requires the Corps to ensure their actions are not likely to jeopardize a threatened or endangered species or adversely modify its habitat. In this case, the federal action is the issuance of a permit.

Section 9 of the ESA states that no one may "take" an animal that is listed as endangered. "Take" includes the harassment, harm, pursuit, hunting, shooting, wounding, killing, trapping, capture, or collection of any threatened or endangered species. "Harm" may include habitat modification that results in the death or injury of a listed species. This is referred to as a "take prohibition". For species listed as threatened, Section 4(d) of the ESA (referred to as the "4(d) rules") requires NMFS to issue rules that citizens, organizations and governments must follow in order to protect the species. The rules may include any or all of the general take prohibitions that apply to endangered species. By regulation, USFWS applies take prohibitions to all threatened species (except plants) at the time of listing. The ESA provides some exceptions to general take prohibitions and 4(d) rules, and landowners can obtain permits for work that incidentally affects listed species (Incidental Take Permit). These permits can only be issued for:

- Scientific work;
- Projects designed to enhance the survival of the species; or
- Activities that may only incrementally take or harm species during the course of the work.

Incidental Take Permits require development of a Habitat Conservation Plan (HCP) that specifies how impacts to a listed species and its habitat will be minimized. In issuing Incidental Take Permits, USFWS and NMFS must comply with the National Environmental Policy Act (NEPA) as well as state and local environmental laws. For these reasons, HCPs also require an Environmental Assessment or Environmental Impact Statement for the proposed activity.

Section 7 requires all federal agencies, including the Corps, to assess whether federally listed threatened or endangered species and/or critical habitat may be affected by a project under their jurisdiction. The Corps will complete a Biological Assessment to evaluate if such an effect is possible, and if it is, are required to consult with USFWS and/or NMFS before approving a permit that might affect species in these ways. This process is called “consultation”. If no impacts on federally listed threatened or endangered species and/or critical habitat are found to be associated with the proposed project, the ESA does not require formal compensatory mitigation. However, demonstration of adverse effects will result in dictated reasonable and prudent measures in the permit issued by the Corps. Additionally, USFWS will consult the USFWS Habitat Mitigation Policy and the Fish and Wildlife Coordination Act, which use the same mitigation language as NEPA, to craft mitigation criteria for inclusion in the permit. NEPA defines mitigation as:

- Avoiding the impacts altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the impacts by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or
- Compensating for the impact by replacing or providing substitute resources or environments.

If the project design and implementation plan are deemed adequate, Oregon Department of State Lands (DSL) and the Corps issue separate permits to the applicant. Permits may include conditions to avoid, minimize, and provide mitigation for expected impacts of the project. Conditions are designed to protect water quality, fish and wildlife and their habitats, and adjacent properties.

Clean Water Act 401 Certification

Water quality standards (including designated uses, criteria, and an antidegradation policy) are an effective tool and strong legal basis that Oregon uses through its water quality management programs to protect the overall health of wetland resources and the valuable functions they

provide, including shoreline stabilization, nonpoint source runoff filtration, wildlife habitat, and erosion control, which directly benefit adjacent and downstream waters.

The Clean Water Act (CWA) Section 401 water quality certification provides Oregon and authorized tribes with the opportunity to address potential aquatic resource impacts of federally issued permits. A federal permit is required to conduct any activity, including, but not limited to, the construction or operation of facilities which may result in any discharge into navigable waters. Federal permits that are most frequently subject to Section 401 water quality certification requirements include CWA Section 402 (NPDES) permits issued by EPA, Section 404 (dredge and fill) permits issued by the Corps, and Rivers and Harbors Act (RHA) Section 9 and 10 permits issued by the Corps. Only the state or authorized tribe where the discharge originates has the authority to condition a permit. States and tribes downstream from where a discharge originates do not have Section 401 authority.

Under CWA Section 401, a federal agency can't issue a permit for an activity that may result in a discharge to U.S. waters until the state has granted or waived Section 401 certification. Granting certification, with or without conditions, allows the federal permit to be issued consistent with any conditions of the certification. Denying certification prohibits the federal permit or license from being issued. Waiver allows the permit to be issued without state or tribal comment. States and tribes make their decisions to deny, certify, or condition permits based in part on the proposed project's compliance with EPA-approved water quality standards. In addition, states and tribes consider whether the activity leading to the discharge will comply with any applicable effluent limitation guidelines, new source performance standards, toxic pollutant restrictions, and other appropriate requirements of state or tribal law.

There is no formal compensatory mitigation required under CWA Section 401. However, conditions accompanying Section 401 certifications may include monitoring requirements and compensatory mitigation if a state or tribe believes them necessary to comply with the CWA or appropriate requirements of state or tribal laws. Monitoring and reporting requirements help the state determine whether water quality is being degraded and may halt operations if conditions are not met during permitted activities, and allows for assessment of the effect of operational practices and conditions on water quality to help shape future certification decisions and conditions. Although mitigation requirements are allowed as a condition under Section 401 certification, it is most often associated with CWA Section 404, under which EPA and the Corps follow the mitigation framework set out in the Section 404(b)(1) guidelines to evaluate applications for Section 404 dredge and fill permits. If mitigation requirements are assigned by the state or tribes as a condition for Section 401 certification, sufficient assurances are incorporated to ensure the long-term success of the project.

Federal Emergency Management Agency Flood Plain Management

The Federal Emergency Management Agency (FEMA) maintains and updates flood information for most major waterways in the nation, including the Willamette and Columbia rivers. For these rivers, FEMA maps the area that has a 1% chance of being flooded each year, and this establishes the 100-year floodplain. The 100-year floodplain is the standard used by most Federal and state agencies for floodplain management and to determine the need for flood insurance. Within Portland, FEMA updated the Flood Insurance Rate Maps (FIRM), which depicts the 100-year floodplain, in 2004.

In general, development must be built above the 100-year floodplain area. This could be achieved by placing fill within the 100-year floodplain to raise the elevation and allow development in that area. Within the City of Portland and as per Chapter 24.50 of City Code (Flood Hazard Areas) any development proposed within the 100-year floodplain triggers the requirement that this activity be balanced with an equivalent excavation within the same 100-year floodplain; this is referred to as “balanced cut and fill”.

State Requirements

Oregon Department of State Lands Removal-Fill Permit (CWA Section 404(b)(1))

CWA Section 404 establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. Responsibility for administering and enforcing Section 404 is shared by the Corps and EPA. The Corps administers the day-to-day program, including individual permit decisions and jurisdictional determinations, develops policy and guidance, and enforces Section 404 provisions. EPA develops and interprets environmental criteria used in evaluating permit applications, identifies activities that are exempt from permitting, reviews/comments on individual permit applications, enforces Section 404 provisions, and has the authority to veto Corp permit decisions. A federal permit is required regardless of the amount of area affected by the activity and amount of fill used.

In Oregon, a state permit (issued by the DSL) is also required if activities involve filling or removing more than 50 cubic yards of material and in an area determined to be Essential Salmonid Habitat or a State Scenic Waterway. Currently, DSL and the Corps use a joint permit application form, so that in many cases applicants need to prepare only one application to obtain both permits. All projects require separate authorizations (or permits) from DSL and the Corps, and each agency may request information in addition to the application. Applications require supporting documentation which includes an environmental assessment or EIS.

Common activities that require a federal (and potentially also a state) permit includes:

- Excavation or dredging in Oregon waters;
- Channel changes, realignments or relocations;

- Construction of a dock, pier, wharf, seawall, boat ramp, intake or outfall structure;
- Placement of fill, riprap or similar material;
- Placing fill to construct levees, roadways and bridges; and
- Bank or shore stabilization projects including jetties and revetments.

Copies of completed applications must be sent to DSL and the Corps. Each of these agencies evaluates the proposed activities to ensure adverse impacts to water resources and other public interests are avoided or minimized. Unavoidable impacts are subject to compensatory mitigation. Section 7 of the ESA requires that the Corps ensure their actions are not likely to jeopardize a threatened or endangered species or adversely modify its habitat (in this case, the federal action is the issuance of a permit). The Corps consults with NMFS and USFWS on permit applications to ensure species and habitat are protected.

Permit review and issuance follow a sequential process that encourages avoidance of impacts first, followed by minimizing impacts and, finally, requiring mitigation for unavoidable impacts to the aquatic environment. This sequence is described in Section 404(b)(1). Only after avoidance and minimization criteria are satisfied can the Corps consider mitigation. The Corps or EPA has the right to require the developer to mitigate any unavoidable impacts on a wetland as a condition of an individual 404 permit. The developer can be required to enhance, restore, or create wetlands on or near the development site. In establishing mitigation requirements, the Corps must strive to achieve a goal of no overall net loss of wetland values and functions, meaning a minimum of one-for-one functional replacement with an adequate margin of safety to reflect scientific uncertainty. Mitigation banking may be an acceptable form of compensatory mitigation, using a mitigation bank that has been approved by EPA and the Corps for this purpose.

DSL would issue a separate permit, and would require compensatory mitigation that is commensurate with removal-fill impacts. Requirements may include, but are not limited to, off-site or on-site enhancement, creation, restoration, or preservation of wetlands. DSL would most likely prefer mitigation within the watershed; payment in lieu of mitigation may be possible. ODFW habitat mitigation policy would require that no loss of either habitat quantity or quality occur. Impact avoidance and site restoration may allow for this threshold to be met.

State Land Use Goals (Goal 5)

Cities and counties in Oregon have been required to comply with the nineteen Statewide Land Use Planning Goals since 1975 by adopting, implementing and maintaining local comprehensive plans. Portland adopted its first comprehensive plan in 1981, and is currently updating this plan. Goal 5 governs Natural Resources, Scenic and Historic Areas, and Open Spaces. The Goal 5 process follows three steps. The first step is to inventory significant natural resources, and

identify the location, extent, quantity and quality of significant natural resources in the area. If a resource or site is deemed significant, the local government has three policy choices: to preserve the resource, allow proposed uses that conflict with it, or establish a balance between protecting and allowing uses that conflict with the resource. The inventory developed as required by Goal 5 is to be specific to each jurisdiction.

The second step of the Goal 5 process is to complete an economic, social, environmental and energy (ESEE) analysis. The ESEE analysis involves evaluating the tradeoffs associated with different levels of natural resource protection. This evaluation involves identifying the consequences of allowing, limiting or prohibiting conflicting uses in areas containing significant natural resources. Common impacts of conflicting uses include activities such as clearing vegetation; grading, excavation, filling and soil compaction; adding impervious surfaces; modifying streams, rivers, and floodplains; generating pollution; landscaping with non-native and/or invasive vegetation; building fences and other wildlife barriers; and other impacts such as activities that create noise and light, or introduce litter or domestic pets.

The third step of the Goal 5 process is to develop an ESEE decision, which will set the direction for how and under what circumstances the local program will protect significant natural resources. The rule requires that this analysis be completed before actions are taken to protect or not protect natural resources. Portland's existing Goal 5 program relies primarily on the environmental overlay zone (See "City of Portland Environmental Zoning Program" below).

Local Requirements

Metro Titles 3 and 13

Metro's *Urban Growth Management Functional Plan* was adopted in the 1990's to provide a regional approach to growth management by tailoring several key state planning goals to meet regional population growth expectations. The Plan includes nine titles that are derived from or relate to state planning goals (the rest are procedural). Of the nine titles, Titles 3 and 13 pertain most directly to natural resources management and watershed health.

Title 3 (Water Quality, Flood Management, and Fish and Wildlife Conservation) was established to protect the region's health and public safety by reducing flood and landslide hazards, controlling soil erosion, and reducing pollution of the region's waterways (note: fish and wildlife conservation was ultimately addressed in Title 13 as described below). Title 3 contains performance standards related to streams, rivers and wetlands to protect and enhance water quality. It establishes and maps Water Quality Resource Areas (WQRA) along rivers, streams and wetlands, with a designated width of generally 25 feet, unless slopes exceed 25% in which case the width increases to 200 feet. The performance standards are intended to prevent encroachment into vegetated corridors along these water bodies, require erosion and sediment

control, planting of native vegetation along stream banks when development occurs, and prohibit storage of new uses of uncontained hazardous materials in any WQRA. Title 3 also established and mapped Flood Hazard Management Areas, and a regional requirement for balanced cut and fill in areas identified on Title 3 maps.

Title 13 (Nature in the Neighborhoods) was established to conserve, protect and restore a continuous ecologically viable streamside corridor system that is integrated with upland wildlife habitat and the surrounding urban landscape, and to control and prevent water pollution. Metro completed the required process to comply with State Land Use Planning Goal 5 in developing the Nature in the Neighborhoods Program. They first developed an inventory of regionally significant riparian corridors called Class I and Class II corridors and wildlife habitat based on a scientific assessment of functional values. Then, Metro completed an ESEE analysis to assess the tradeoffs of protecting or not protecting the resources identified in the inventory. Based on this ESEE analysis, Metro determined to allow and to limit some conflicting uses, but not to prohibit any conflicting uses; thereby establishing different levels of protection for significant fish and wildlife habitat based on habitat quality and urban development potential. The resulting High, Moderate and Low Habitat Conservation Areas (HCA) are protected through a tiered approach outlined in Title 13. Within the Urban Growth Boundary, Habitat Conservation Areas were only developed for areas designated in the inventory as Class I or Class II riparian corridors.

The City of Portland will be required to demonstrate that its comprehensive plan and implementing ordinances are in substantial compliance with Titles 3 and 13. The City may establish regulatory and non-regulatory mechanisms to protect, conserve and restore significant riparian corridors and fish and wildlife habitat on West Hayden Island, and may establish regulatory protections for areas Metro has designated as HCA without conducting a local ESEE analysis. Metro designated West Hayden Island as a moderate HCA under Title 13.

City of Portland Environmental Zoning Program

Chapter 33.430 of the City of Portland Planning and Zoning code establishes environmental protection zones within the City. The City follows the Goal 5 steps: inventory existing natural resource, conduct an ESEE analysis and apply a program to conserve and protect significant resources.

Through the City's ESEE analysis, conflicting uses (aka development) are either allowed, limited, or strictly limited. (The City generally does not prohibit conflicting uses.) The *limit decision* is typically applied through a conservation overlay zone. Within conservation overlay zones, proposed development must avoid and minimize impacts to natural resources and mitigated for unavoidable impacts. The *strictly limit decision* is applied through a protection overlay zone. Within the protection overlay zone, development is not allowed unless it is needed

for access or if the public benefits outweigh the negative impacts to the natural resources; mitigation for unavoidable impacts is required.

Where development is proposed within the overlay zone the applicant must meet the zoning code chapter 33.430. The proposal will be reviewed by the City using either an Environmental Plan Check or an Environmental Review procedure. The Environmental Review procedure will require a greater level of environmental impact analysis than is required for the Plan Check, with detailed environmental studies needed to support the analysis. Proposed development location and design will need to be justified, and mitigation is required to replace lost environmental resources. Depending on the degree of significance of the potential impacts, mitigation may be required in either the resource area of an Environmental Conservation Zone or the resource area of an Environmental Protection Zone. A mitigation plan must be developed and is subject to land use review by the Bureau of Planning and Sustainable Development. The mitigation plan includes:

- Identification of the resources and functional values to be restored, created, or enhanced on the mitigation site;
- Documentation of coordination with appropriate local, regional, special district, state and federal regulatory agencies;
- Construction timetables;
- Operations and maintenance practices;
- Monitoring and evaluation procedures;
- Remedial actions for unsuccessful mitigation; and
- Information showing compliance with Section 33.248.090, Mitigation and Restoration Plantings.

The Bureau of Planning and Sustainable Development will make a final determination of mitigation success.

Since West Hayden Island is not currently annexed into the City of Portland, a local inventory and ESEE analysis has not yet been conducted. Part of the process for zoning West Hayden Island will be to determine the applicability of environmental overlay zones to inventory natural resources.

Development Agreements as an Alternative Mitigation Tool

Development agreements are a tool that the City has used to supplement or replace (in lieu of) the requirements of environmental overlay zones on a project site. The development agreement is a customized program for natural resource protection and mitigation for a specific site. The

agreement can be designed to achieve a similar level of resource protection and mitigation as would have been achieved using an environmental overlay zone. It could also involve different sorts of approaches than would typically be achieved through implementing the overlay zone e.g., off-site mitigation or “out-of-kind” mitigation. The development agreement typically provides more certainty in anticipated results than an environmental land use review, while also providing flexibility in the approach, timing and location of resource protection and mitigation.

The City has used two legal agreement mechanisms to establish development agreements:

- 1) Development agreements between the City and a private property owner; or
- 2) Intergovernmental Agreements, or IGAs, between public agencies.

For both types of agreements, natural resources are inventoried, future development impacts and land management activities are assessed, and appropriate compensatory mitigation for identified impacts to natural resources are established and agreed upon.

This tool can be appropriate for large parcels of land under a single ownership that contain diverse, extensive and/or unique natural resource areas. Under these circumstances an agreement can provide the opportunity to manage natural resources comprehensively based on long-term, anticipated development and desired future resource conditions. It provides certainty to the property owner because it can eliminate the need to review and identify mitigation requirements for each individual project. The agreement provides certainty to the City and the public as well. An agreement generally contains monitoring and maintenance requirements for the life the agreement, which provides certainty to the City and the community that resource protection and mitigation will be carried out and has the best chance of being successful.

It should be noted that these types of agreements are a very new tool within the City, and there is no established code to guide their development or use.

City of Portland Stormwater Management Manual

The *Stormwater Management Manual* (SWMM) is a technical document originally adopted in 1999 that outlines the City’s stormwater management requirements; its most recent update was 2008. The requirements defined in the manual apply to all development and redevelopment projects within the City of Portland on both private and public property. The SWMM applies to the following:

- Properties that proposed new offsite discharges or new connections to the public system.
- Projects that develop or redevelop over 500 square feet of impervious area.

The City’s approach to stormwater management emphasizes the use of vegetated surface facilities to treat and infiltrate stormwater on the property where the stormwater is created. This approach provides a number of benefits in protecting stormwater infrastructure and improving

watershed health, including pollutant reduction, volume and peak flow reduction, and groundwater recharge.

If an entity cannot meet the requirement for managing stormwater onsite to the maximum extent feasible, the City may allow the entity to either construct an offsite facility or compensate the City for the future development of offsite facilities through payment of a fee. In this case, a filing of “special circumstances” must be done by the applicant, which will be reviewed and approved by the City before an alternative approach would be allowed.

The SWMM complements and supports the City’s *Portland Watershed Management Plan, System Plan, Revegetation Program, Sustainable Stormwater Program*, and other City standards and practices.

Other Guiding Policies

The following policies do not have specific mitigation requirements, but provide guidance or context that can inform selection of mitigation actions.

The Migratory Bird Treaty Act and the Urban Conservation Treaty for Migratory Birds Program

The Migratory Bird Treaty Act (MBTA), passed in 1918, established the United States’ commitment to implement four bilateral treaties, or conventions, for the protection of a shared migratory bird resource. The MBTA protects over 800 species of birds. Over 200 migratory bird species migrate through Portland every year, and Portland provides critical resting, feeding and nesting habitat for numerous types of migratory and resident birds.

The MBTA uses very broad language to prohibit at any time or in any manner the pursuit, hunting, taking, capturing or killing of any migratory bird. It does not have an incidental take permit or its equivalent. The unauthorized killing of any of approximately 800 identified migratory birds constitutes a violation of the MBTA. The MBTA has no specific mitigation requirements. It is enforced by USFWS, although its enforcement is viewed as somewhat selective because of MBTA’s expansive scope. The MTBA’s applicability to habitat modification and destruction is unclear; the definition of “take” in the MBTA does not include “harm” or “harass”, unlike the ESA. Due diligence with MTBA requirements is typically done by providing baseline studies and preconstruction surveys that document site characteristics and development of a protection plan for species known to be present.

Portland joined four other U.S. cities in 2003 in establishing a local commitment to help migratory birds and enhance their habitats within urban environments by participating in the Urban Conservation Treaty for Migratory Birds program. USFWS selected Portland as a pilot

project city due to its location along the Pacific Flyway. The program was designed by USFWS in 1999 to help municipal governments conserve migratory birds that nest or fly through their cities. The Treaty sponsors public education and outreach projects to help increase public understanding of the importance of migratory bird conservation. It also helps finance the creation and restoration of city parks and greenways.

Proposed Columbia River Estuary ESA Recovery Plan Module for Salmon and Steelhead

NOAA NMFS released the *Columbia River Estuary ESA Recovery Plan* Module in January 2008 to serve as the basis of estuary recovery actions for ESA-listed salmon and steelhead in the Columbia River Basin. It is part of a larger, regional planning effort to develop recovery plans for these species, and it will be incorporated into individual recovery plans for the Columbia Basin salmon evolutionary significant units (ESUs) and steelhead distinct population segments (DPSs) by reference.

The module focuses on habitat in the lower Columbia River below Bonneville Dam and how that habitat affects the survival of these species. Its goal is to identify management actions that, if implemented, would improve survival during migration and rearing in the estuary and plume. The module identifies and prioritizes limiting factors (physical, chemical or biological habitat features) and potential threats (human actions and natural events) in the estuary that affect population viability. It then identifies 23 broad management actions to reduce threats and increase survival.

The module expresses the potential benefits of the management actions as “survival improvement targets”, which are assigned to each action based on assumptions about implementation difficulty, the significance of the specific threats and limiting factors the action would address, and the effect of the action on these threats and limiting factors. The targets are useful in comparing the trade-offs involved in implementing different actions to different degrees, and in comparing the cost effectiveness of actions.

The Lower Columbia River Recovery Plan for Oregon Populations of Salmon and Steelhead

The updated *DRAFT Lower Columbia River Recovery Plan*, which was issued in April 2010, outlines steps to rebuild natural salmon and steelhead populations in the lower Columbia River, with the goal to helping these populations grow to levels where they no longer need protection under ESA. The Plan has been under development since 2006 with input and guidance from numerous public and private stakeholders. It provides management and restoration guidance for four different species within the Oregon portion of the lower Columbia River sub-domain: the Lower Columbia River coho ESU, the Lower Columbia River Chinook ESU, the Lower Columbia River steelhead DPS, and the Columbia River chum ESU. It will serve as an Oregon Conservation Plan under the Native Fish Conservation Policy, and as a Federal ESA Recovery

Plan. It is currently out for public comment, and scheduled to be presented to the Fish and Wildlife Commission in August 2010 for adoption. It will become part of an overall NOAA Fisheries recovery plan that ties Oregon and Washington Plans together that will be available for public comment in fall of 2011.

This most recent DRAFT of the Plan is considered more comprehensive than previous iterations, based on sound science with consideration of species full life cycles, and provides much more specificity in how it will be implemented. It identifies only key and secondary limiting factors and threats, and only key and secondary proposed actions. It calls for new or continued research, monitoring and evaluation (RME) to resolve uncertainties, assess the effectiveness of actions, and gather data on the status and trends of populations, their habitat, and sources of threats. It also incorporates an adaptive management process that dictates the use of new information derived from RME in order to modify, add, or discontinue actions or strategies so the best and most effective means of achieving recovery are utilized as uncertainty about the needs of fish populations and benefits or certain actions are reduced. A framework is identified to oversee Plan implementation, and action tracking, RME results, adaptive management modifications will be documented in annual reports.

Urban Forestry Management Plan/Tree Project

The *Urban Forestry Management Plan* (UFMP, last updated in 2004) provides direction for the maintenance and improvement of Portland's urban forest and makes recommendations to enhance and improve the urban forest now and for the future. Its three main goals are:

- Protect, preserve, restore and expand Portland's urban forest;
- Develop and maintain support for the urban forest; and
- Manage the urban forest to maximize benefits for all residents.

Specifically, it responds to recent environmental mandates, clarifies resource management and authority, better coordinates the roles of different agencies and bureaus, and provides canopy targets. It divides Portland's urban forest into five basic categories called Urban Land Environments (ULEs). Each ULE has particular physical characteristics and issues, provides various benefits and serves different needs. Each ULE is managed by different bureaus, agencies or individuals to achieve different results. The UFMP provides a description of each ULE, management goals, information about property owners/managers, and an analysis of the strengths, weaknesses, opportunities, threats and issues for the ULE. This is followed by specific objectives, recommended actions, and performance measures for assessing progress.

An implementing document for the UFMP, the *Urban Forest Action Plan* was developed by an interbureau committee and accepted by City Council in 2007 to ensure attainment of the goals and recommendations of the UFMP. The Action Plan describes the full array of benefits and

services that trees provide across the urban landscape. The prioritized actions are those that can be done by City of Portland bureaus; achieving all of the UFMP's goals will require participation from private organizations, individuals, and other public agencies.

Portland Watershed Management Plan

The *Portland Watershed Management Plan*, adopted by City Council in 2005, describes the approach that will be used to evaluate conditions in the City's urban watersheds and implement projects to protect and improve watershed health. The approach is used by the Watershed Services Group, other City bureaus, agencies, and citizens' groups that all share a common goal to protect Portland's natural resources, restore critical ecosystems, and implement stormwater management solutions that integrate the urban area with the natural environment. Its overarching theme is to improve watershed health through watershed friendly (more sustainable?) development, installation of new stormwater infrastructure and the City maintenance and retrofitting of existing infrastructure in new ways that will improve watershed health. The success of the plan is contingent on the integration of a "watershed approach" into the routine work of all City bureaus.

The Watershed Management Plan presents an integrated City response to local, state, and federal environmental requirements, providing the flexibility to respond to regulatory requirements in a manner that addresses the root causes of problems rather than the more traditional mandate-by-mandate approach that only addresses the symptoms. The Watershed Management Plan includes description of a management system that is used to track City progress toward well-defined watershed health goals, and to help the City adapt their strategies as needed to maximize effectiveness. An annual report is developed that tracks the progress toward achievement of the watershed health goals.

The Watershed Management Plan includes strategies and actions that will be implemented to achieve these goals. There are a number of related initiatives, including the *River Plan* and the *Willamette River Natural Resources Inventory* that advance the goals, strategies and actions of the Watershed Management Plan.