

Supplemental Willamette River and Riverfront Information

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Introduction

At the Southeast Quadrant Stakeholder Advisory Committee (SAC) meeting on December 4, 2014, Bureau of Planning and Sustainability (BPS) staff presented Willamette River and riverfront policy approaches and provided examples of strategies that show how these approaches could be implemented in the Central Eastside. Staff asked the SAC and the public for feedback. See the summary notes and a summary of written comments received from the comment form at: <https://www.portlandoregon.gov/bps/article/510687> .

BPS staff appreciate the comments shared by SAC members and the public and will consider them as we develop specific river-related refined concepts, policies and actions that will comprise the draft Southeast Quadrant Plan and as we develop the implementing zoning code that will be part of the Central City 2035 Plan.

This document provides additional information in response to SAC and public comments at the December meeting. Staff hopes that this information will provide the SAC and the public with a better foundation to understand the upcoming SE Quadrant and CC2035 Plan products.

1. Riverfront Uses and Development

The common vision for the Willamette riverfront in Central City is a dynamic central gathering place where people engage with the river through activities and destinations that promote economic prosperity, recreation, transportation, river health and habitat and overall enjoyment. There is a strong relationship between the riverfront and adjacent development. The SE Quadrant planning process has confirmed this vision.

One way to help achieve the outcome is by updating the zoning code to allow, require and incent desired uses, character and form to shape the riverfront over time.

BPS staff plans to review and if needed update the base zones, use type categories, definitions such as river-dependent and river-related*, and the greenway overlay zones, to make sure that the regulations do not prohibit the City from achieving the riverfront area vision. BPS staff will also work on code-based incentives for significant riverfront development and activities such as additional height and/or FAR, or transfer of development rights. Given the increasing draw of the riverfront, the increasing use of the greenway trail and the desire for more open space areas, staff will also be considering an update to the greenway setback and trail provisions. This approach will include looking at development incentives to create additional open spaces and a wider greenway setback where it is feasible. Additionally, staff will explore creation of development standards and limited exemptions to some development standards for specific situations, such as for properties that must comply with MTSA.

Other tools to achieve the desired future riverfront area will include public investments in infrastructure and amenities, partnerships and private sector investments.

*See glossary on page 8 for the zoning code definition of river-dependent and river-related.

2. Maritime Transportation and Security Act

The Maritime Transportation and Security Act (MTSA) is a federal law enacted in 2002, in response to the tragedy of September 11, 2001. It aims to protect U.S. ports and waterways from a terrorist attack. It does so by requiring controls to limit public access to facilities and vessels that might be vulnerable to an incident resulting in a significant loss of life, environmental damage and transportation system and economic disruption.

Vessels and facilities that have certain characteristics based on cargo type, number of passengers (greater than 149), and vessels that go in and out of a river system must develop and have federally approved security plans. Each plan must include measures that increase with heightened Maritime Security (MARSEC). These plans are considered sensitive security information and are confidential. Overall, this law can pose challenges to certain types of development. It could also alter existing public access at specific locations such as when vessels are loading and unloading. See Attachment 1 for a summary of the MTSA developed during River Plan/North Reach.

3. U.S. Supreme Court Decisions that Impact Greenway Trail Regulations

There are several U.S. Supreme Court decisions, notably *Dolan v. City of Tigard* (1994) and *Nollan v. California Coastal Commission* (1987) that impact when and how a public entity can require an exaction such as a conveyance of land for public purposes as part of a development permitting process. These cases require that there be a “rational nexus” between the exaction and the impact caused by the development, and the exaction must be proportional to the impact. This is commonly called the “Nollan-Dolan Test” and requires an analysis by the public entity.

While the City’s greenway trail zoning code provisions have not been updated since these Supreme Court decisions were made, the City of Portland has been applying these requirements when completing greenway land use reviews. As part of the Willamette River Greenway zoning code update for CC2035 Plan, staff will be proposing language that clearly states that a trail exaction must be roughly proportional to the impacts of the proposed development before that exaction can be required.

4. FEMA Lawsuit Description

In July 2010, the Federal Emergency Management Agency (FEMA) entered a settlement agreement with the Audubon Society of Portland, North West Environmental Defense Center, the National Wildlife Federation, and Association of Northwest Steelheaders under US District Court for Oregon. The plaintiffs argued that the National Flood Insurance Program (NFIP) could affect threatened salmon in Oregon, and therefore FEMA needed to consult with the National Marine Fisheries Service (NMFS) as required by the Endangered Species Act (ESA). These events followed a similar decision in 2004 by the US District Court in Washington, which led to a biological opinion by NMFS that development activity in the floodplain, authorized under the NFIP, has resulted in loss of salmon habitat.

The Oregon consultation between FEMA and NMFS began 2012. A Biological Opinion is expected to be issued this spring.

In Washington, NMFS determined that three elements were likely to jeopardize the continued existence and adversely modify the critical habitat of ESA-listed fish in Puget Sound. Those elements were 1) filling floodplains; 2) constructing levees to support development; and, 3) the community rating system that credits harmful development practices. NMFS proposed the following reasonable and prudent alternatives (RPAs) including:

- Change the minimum criteria for the flood insurance program to:
 - prohibit development in the floodway and riparian buffer zone or prove that development does not adversely affect water quality, quantity, flood volumes or velocities, spawning substrate or refugia habitat for salmon; and
 - prohibit development in the 100 year floodplain or development in the 100 year floodplain and any improvements or repairs to existing structures that increase the structure's footprint by more than 10% , must be Low Impact Development (guidelines for which are set out in a Technical Memorandum); loss of floodplain storage must be avoided, rectified or compensated for (such as balance cut and fill with fish habitat); and all indirect effects including fill, stormwater, riparian vegetation, bank stability, wetlands and hyporeic flow, must be mitigated.
- The Community Rating System must credit stormwater programs, low impact development, preservation of open space, buyout programs (such as our Johnson Creek willing seller program), retention of riparian function, levee setbacks and vegetation, and beneficial salmon programs. The CRS must reduce points for structural changes such as levees, berms, storm sewer, and diversions.
- FEMA must make its Hazard Mitigation grant funding available for acquisition, easements and setbacks and prioritize those monies based on lands identified in an approved salmon recovery plan; new levees and floodwalls will not be certified unless they a) retain the natural channel migration; b) use bioengineering for bank stabilization; c) incorporate large wood; d) include riparian vegetation; and e) do not increase upstream or downstream flood levels, volumes and velocities.

5. Projected River Rise due to Climate Change

The Willamette River has experienced a major flood event roughly every 30 years since the installation of upstream dams: 1948, 1964, and 1996. The *Climate Change Preparation Strategy: Risk and Vulnerability Assessment* (2014) evaluated how flooding might be altered on the Willamette River with climate change <https://www.portlandoregon.gov/bps/64076> . The study found that more flooding in Portland could occur in December under the two different climate scenarios because additional rainfall across the entire Willamette watershed would increase the peak flows of the river below Willamette Falls. This means that there is a high risk of increased flooding in the Central City.

A technical memorandum on *Willamette River Stage and the Effect of Global Climate Change* (Parametrix, January 27, 2010) was produced for the Portland to Milwaukie Light Rail Bridge (now named the Tilikum Crossing). The study found that by 2100, the flood stage at bridge location would rise between 1.8 and 4.8 feet. This considered not only the effect of climate change on the Willamette River but also sea level rise and tidal influences. As a result of the study the bridge was raised 2.5 feet.

6. Permit Coordination and Regulations Below Ordinary High Water

The riverbank and water below the ordinary high water mark (OHWM) is regulated by the City, state and federal government. Some SEQ stakeholders, have suggested that the City's review of development below the OHWM is duplicative of state and federal evaluations, leading to differing determinations, lengthening the overall permitting process, and resulting in costly project redesign. In fact, the City's goals in reviewing development are broader than the regulatory mandate of the state and federal government.

These City goals include:

- Protecting properly functioning habitat conditions. To this end, the City limits detrimental impacts to watershed functions identified in the City's adopted natural resource inventories and Portland Watershed Management Plan
- Protecting riparian and aquatic habitats and species beyond those that the state and federal agencies protect (e.g. non-listed species)
- Assisting in the recovery of threatened and endangered species
- Ensuring that adequate mitigation is provided to compensate for unavoidable impacts to resource functions
- Ensuring that approved in-water development is consistent with City land use plans and zoning and does not affect the desired use of the upland portion of the site
- Protecting and improving groundwater and surface water quality
- Supporting river-dependent uses throughout the Willamette River in Portland

State and federal agencies focus more closely on biological systems, particularly ESA-listed species, and on jurisdictional habitats such as wetlands, and on navigation. All of these are evaluated during review of the development proposed at that time, but those agencies are not able to consider the full context including the surrounding conditions, potential future development in the surrounding area or an applicant's future development plans.

Development that occurs below the OHWM usually has impacts, or is physically attached to, development above the OHWM. It would be extraordinarily difficult to limit the City's review to only the portion of the development that occurs above the OHWM. Additionally, City development review staff have extensive knowledge of local conditions and circumstances that state and federal agencies may not have or do not consider.

The City coordinates with state and federal agencies during the review process. There is a streamlining committee made up of representatives from the regulatory agencies that meets to review large-scale public projects that will require permits for impacts below the OHWM. A proposal of the CC2035 Plan is to expand the streamlining process to allow private development to use the committee for early coordinated project review. Please see Attachment 1, a flow diagram that shows the proposed permit coordination process.

7. In-Water Habitat

Prior to development along the Willamette River and dams constructed upstream, 80-90% of the lower portion of the river was mostly shallow water, depending on the season and tides. These shallow areas, coupled with riparian vegetation, created high quality habitat for fish and birds. Over the years, humans have filled in the river, hardened the riverbank and altered the natural flows. The result is now only 10-20% of the river is shallow and those remaining shallow areas are now critical for fish.

The remaining shallow water areas in the Central City are:

West Side

- Centennial Mills
- McCormick Pier
- Hawthorne Bowl
- Westbank under Marquam Bridge

East Side

- I-84/I-5 Interchange Area (near Duckworth Dock)
- Small areas along Eastbank Esplanade
- Eastbank Crescent
- Ivon Street terminus

These areas are shallow because of the river flows, fill within the floodplain and the location of riverbank treatments like the seawall, pilings and riprap. The river scours out and removes sediment at locations where it is deeper and the flows are swift, and deposits sediment where the flows are slower and the river is shallower.

Making new shallow water habitat would be a very significant undertaking with extensive engineering and substantial alterations to the riverbank. The most successful way to make new shallow water habitat would be to remove the riverbank treatment and fill that has been placed in the floodplain and layback the riverbank; thus creating new space, off the main channel for the river to overflow into. However, that type of action is often very costly and can have significant impacts on adjacent development.

8. Fishing

Fishing is allowed anywhere the public has access to the Willamette River and in the river itself. In 2012 Portland Parks and Recreation established a Fishing Policy for the Willamette River in Portland. It designated six specific fishing locations at public parks and open spaces. One of these fishing locations is within the Central Reach and that is the Duckworth Dock. Recently the City temporarily closed public access to the Duckworth Dock due to transient boating issues.

9. Riverbank Enhancement and Tree Canopy Targets

As part of the N/NE Quadrant and West Quadrant work, staff began developing methodologies for setting river bank enhancement and tree canopy targets. The memos that describe the approaches and methodologies are available online. To review the methodologies please go to <http://www.portlandoregon.gov/bps/61673>, choose *Recommended Draft West Quadrant Plan*, download the plan and scroll to page 173, Appendix C: Draft Riverbank Enhancement Target Methodology, and page 183, Appendix D: Draft Tree Canopy Target Methodology. A short summary of the methodologies is provided below.

Riverbank Enhancement Target

To establish a target for riverbank enhancement, staff 1) inventoried existing riverbank conditions within the Central City; 2) made assumptions regarding which types of riverbank treatments (e.g., riprap, pilings, etc.) could be enhanced; and 3) determined, based on the assumption, the linear feet of enhancement possible in the Central City. Finally, staff considered the different avenues of how enhancement is completed on private and public property. For example, private property is typically enhanced during development/redevelopment.

There are 39,215 linear feet of riverbank in Central City. Assuming that riverbanks that are currently vegetated, beaches or non-vegetated banks with a slope of less than 30% can potentially be enhanced; then 24,260 linear feet of riverbank are potentially available for enhancement.

It is assumed that 70% of the riverbank that is publically owned and could potentially be enhanced will be enhanced by 2035. Therefore, the riverbank enhancement target for publically owned property is 6,630 linear feet.

There are 4,960 linear feet of riverbank that is privately owned and expected to develop/redevelop by 2035. It is assumed that through Greenway Plan requirements, 90% of those riverbanks will be enhanced. The riverbank enhancement target for privately owned, likely to develop/redevelop property is 4,170 linear feet.

The remainder of the riverbanks that could be enhanced, 4,889 linear feet, are privately owned and not expected to develop/redevelop by 2035. Through public/private partnership it is assumed that 1,800 linear feet of those riverbanks will be enhanced.

Riverbank enhancement target = 12,600 linear feet

The estimated costs for the enhancement actions, including long term maintenance, is approximately \$5M. This estimate is based on the *River Plan/North Reach Willamette River Mitigation In-Lieu Fees Technical Report* produced by Tetra Tech, Inc. (October 2010). The costs reported in that document are based primarily on prior US Army Corps of Engineer or City of Portland Environmental Services and Portland Transportation projects.

Tree Canopy Target

The tree canopy targets have not been set. Draft targets were produced for the N/NE and West Quadrants; however, these targets will be updated in the spring when new tree canopy data is available.

In addition, the City has a street tree inventory for portions of the Central City, which will be used to update the targets. Below is a summary of the methodology.

Today, tree canopy covers 8% of the Central City. The most tree canopy is found in the University District with 20%, and the least tree canopy is found in the Central Eastside with 3%. However, in some of the districts with the lowest tree canopy, including the Pearl District and the Central Eastside, many new trees have been planted. These immature trees do not yet count because they are too small, but they will produce canopy in the future.

To set the tree canopy targets, staff are evaluating the following:

- Existing tree canopy
- Zoning (considering requirements for lot-line to lot-line development and landscaping requirements)
- Available space within rights-of-way (considering street designations, freight routes and future priorities)
- View corridors
- Available space within public parks (considering existing and desired park uses)
- Redevelopment opportunities

The Urban Forestry Management Plan (2004) set a 15% tree canopy coverage target for commercial/industrial/institutional areas and a 35% tree canopy coverage target for rights-of-way. The Portland Plan (2012) includes a Central City tree canopy target of 10-15%. These targets are lower than for residential areas, where the UFMP and Portland Plan target is 35-40%. This is because the Central City is much more urbanized and development generally covers lot line to lot line; as compared to residential areas where there is room in yards for trees. There is not a city-wide tree canopy target in the UFMP; however, when the different targets for development types are aggregated and applied across the entire area of the city, the average is 33%. (Note – Per the Portland Plan, all of these targets are expected to be met by 2035.)

10. Glossary of Environmental and River-Related Terms

Ordinary High Water Mark is the line on the bank or shore to which the high water ordinarily rises annually in a season. (Webster’s Dictionary)

River Dependent – A use which can be carried out only on, in, or adjacent to a river because it requires access to the river for waterborne transportation or recreation. River dependent also includes development, which by its nature, can be built only on, in, or over a river. Bridges supported by piers or pillars, as opposed to fill, are river-dependent. (Portland Zoning Code, 33.910)

River-Related – A use or development which is not directly dependent upon access to a water body but which provides goods or services that are directly associated with river-dependent land or waterway use or development, and which, if not located adjacent to water would result in a public loss of quality in the goods or services offered. Residences (including house boats), parking areas, spoil and dump sites, roads

and highways, restaurants, businesses, factories and recreational vehicle parks are not generally considered dependent or related to water. Recreational trails and viewpoints adjacent to the river are river-related development. Bridge exit and entrance ramps supported by piers or pillars, as opposed to fill, are river-related development. Removal or remedial actions of hazardous waste substances conducted under ORS 465.200 through 465.510 and 475.900 are considered river-related development for the duration of the removal or remediation action (Portland Zoning Code, 33.910).

River enhancement is a process to improve/enhance/heighten functions of existing habitat. Enhancement does not increase the size of a habitat area. (Bureau of Environmental Services)

River restoration is when habitat is re-established on a site or a portion of a site. Restoration increases the size of the habitat area or reintroduces habitat functions that are currently absent. (Bureau of Environmental Services)

For the purposes of SE Quadrant discussions the following definition for water/river transit is offered by staff as developed from a number of sources:

Water/river transit provides in water transportation for people from one destination to another. The engine, vessel type and size can vary as well as the number of passengers served. Some water transit services include ferries that transport motor vehicles along with passengers. This service can be operated by private or public entities or through a public-private partnership.

Attachment 1

MARITIME TRANSPORTATION SECURITY and the RIVER PLAN

Background

The Maritime Transportation Security Act (MTSA) of 2002 is a federal law designed to protect U.S. ports and waterways from a terrorist attack. MTSA requires measures to control access to facilities and vessels that might be vulnerable to an incident resulting in a significant loss of life, environmental damage, transportation system disruption, or economic disruption. Most responsibilities for implementation of MTSA lie with the US Coast Guard under the Department of Homeland Security.

MTSA requires security plans for vessels and facilities that load or carry certain dangerous cargoes (those that are flammable, potentially explosive, caustic, or environmentally hazardous), facilities that receive vessels certified to carry more than 150 passengers, and facilities that receive vessels going in and out of the river system.

The security plans which these regulated facilities create must be approved by the Captain of the Port. The plans are required to include measures that increase with a heightened Maritime Security (MARSEC) threat level. There are provisions in the rules for exemptions, waivers, equivalents, and Alternative Security Programs. Certain small businesses might be able to qualify for one.

The security plan requires enclosure of the passenger embarkation area (typically fencing and possibly a building) to preclude public access to the vessel. This poses a potential conflict with the greenway trail system, depending on location.

The MTSA also requires that security plans include measures that increase with heightened threat levels.

There is some flexibility in how Facility Security Plans (FSPs) are implemented. They are performance-based, aimed at achieving a standard rather than being prescriptive on exactly how to meet that standard. But the burden is on the facility to meet the requirements nonetheless. As a Coast Guard representative has said, "We don't tell facilities how to do it; rather, we tell them what to achieve."ⁱ

For example, *lighting* at facilities is not necessarily a requirement, but *monitoring* is, so facilities may be able to fulfill requirements through other means such as surveillance cameras, security guard(s), etc.

MTSA also includes an Area Maritime Security (AMS) Plan, which covers facilities and waterway venues such as parks or public piers that are not required to have individual security plans. The AMS plan is developed and implemented by an AMS Committee with representatives from federal, state, and local governments, as well as industry and the public sector. The AMS Plan only requires that covered facilities be aware of the threats; it does not require that they have specific security plans.

In 2012 the Coast Guard said that cruise ships were not going to be allowed to dock anywhere downtown other than T2 or the like. They said that this decision was made due to the occupy protests.

MTSA's requirements can be found in the Code of Federal Regulations (CFR), Title 33, Subchapter H, Parts 101 through 106.

ISSUES

There are several issues that bump up against the MTSA and thus require careful attention as river planning is initiated. These include confidentiality, recreation, natural resources, harbor industries, and neighborhoods.

Confidentiality. Information on security plans is considered sensitive security information and is confidential. In order for the City to achieve River Plan goals while following MTSA requirements, it will be necessary to coordinate proposed plans with individual facilities while respecting limits of disclosure. If a regulated facility is willing to make changes to its plan, it will need to negotiate any proposed change with the Coast Guard.

Trail Alignment and Public Access. A connected trail system along the Willamette can provide recreation and alternative transportation. MTSA could pose challenges to building trails along some portions of the North Reach, which is heavily industrial and contains multiple regulated facilities. The Captain of the Port set out the following policies that relate to trails. First, a ten-foot clear zone on either side of a perimeter fenceⁱⁱ is required to allow security personnel to monitor the facility. Also, no new public rights-of-way can be sited within 20 feet of the perimeter fence of a regulated facility. These policies may limit access in areas where space is constrained.

The US Coast Guard does not have regulatory authority over trails outside a facility area. However, if a trail passes through an MTSA-regulated property, the property would be required to amend its security plan to demonstrate how security would be handled with the trail.

The Coast Guard does not regulate railways except where a railroad enters a regulated facility.

For more detail on security measures, see Code of Federal Regulations, Title 33, Part 105.255 and 105.260(b)(1).

Boating. If recreational boaters get too close to secure facilities or vessels, security personnel will confront them and ask them to stay away.

Vegetation and Landscaping. Trees can be a problem if they are tall enough to allow someone to climb over a security fence. Lower-lying vegetation is usually acceptable as long as it is not so thick that someone could tunnel through without security cameras noticing. The Coast Guard has worked with the City in the past on removing unacceptable vegetation.

Nearby land uses. A facility that is subject to MTSA is required to amend its security plan to respond to changes in its immediate environment, such as a new development next door. For example, if a mixed-use development was built next to tank farms, the new development would be subject to the very general advisory elements of CFR Part 101 or 103, not Part 105, which covers facilities. But the tank farm facility would be held accountable for adjusting their security plan to address this new development next door. Such land use and facility plan changes would likely involve negotiations with the MTSA-regulated facility.

Lastly, CFR Part 105 does not distinguish between facilities in operation versus those still under construction, however, a facility cannot handle dangerous cargoes until its security plan has been approved.

WORKING WITH THE MTSA

- River Plan staff should work directly with relevant facilities and only consult with the Coast Guard as needed. Facilities are required under MTSA to have a Facility Security Officer who is responsible for

the development, implementation, revision and maintenance of the FSP and for liaison with the Coast Guard.

- The Navigation and Vessel Inspection Circulars (NVICs) are tools to interpret regulations. For more information, go to <http://www.uscg.mil/hq/cg5/nvic/>
- Contact USCG Sector Columbia River Command Center in Astoria (503) 861-6212 for more information.

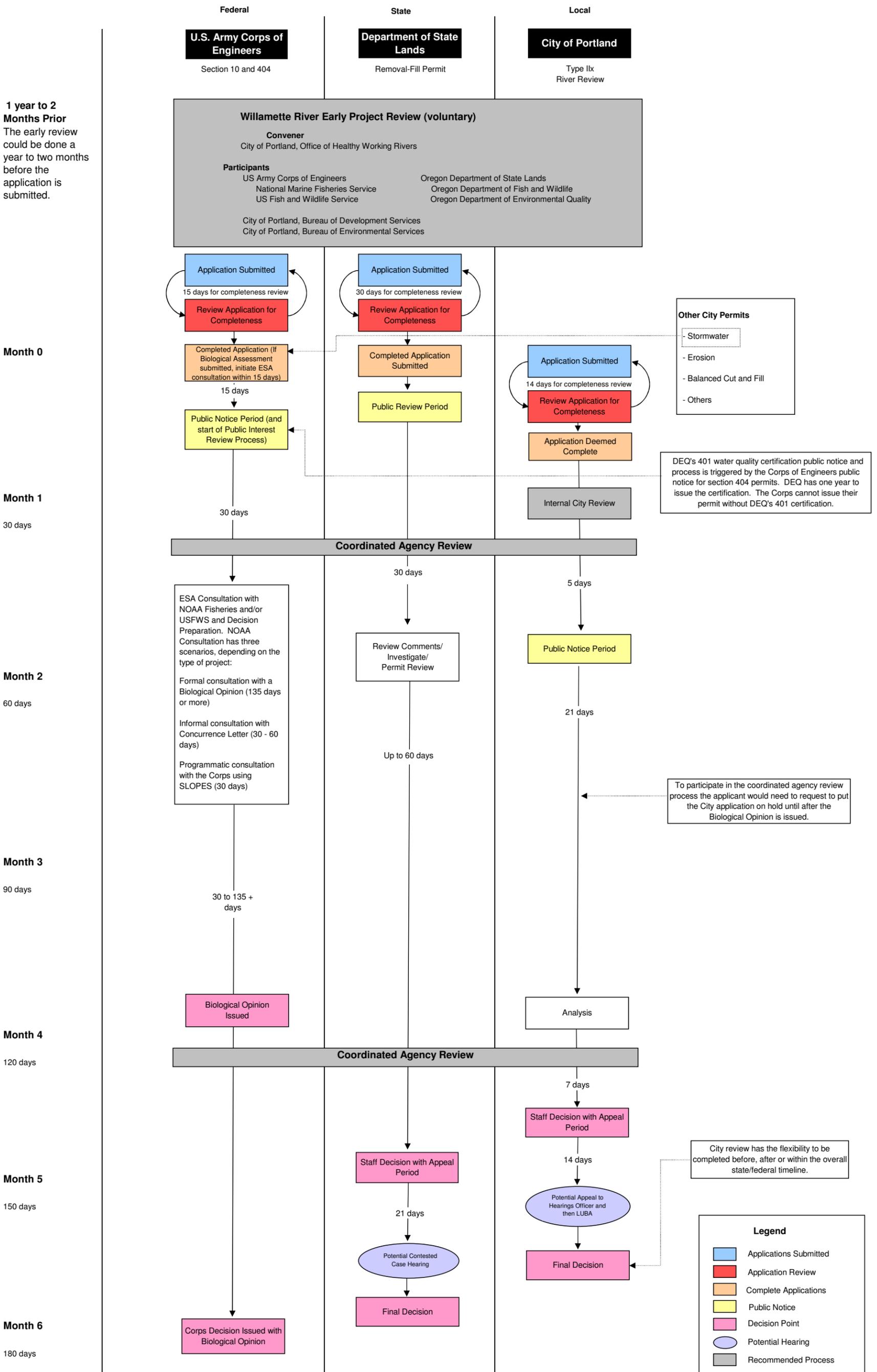
Coast Guard Commander Daniel Pippenger, personal communication, Aug 2, 2005.

Fencing is a common security solution that facilities use, because one of the requirements at the higher MARSEC threat levels is to be able to exclude persons from the secure portion of a regulated facility. Many facilities may decide to fence the perimeter of the entire site, rather than just the secure portion of their site. Where to put the fence is up to the facility. If a facility wants to change the position of the fence after their security plan has been approved, the Coast Guard would need to review their plan again.

Attachment 2: City/State/Federal Permit Streamlining

River Plan / North Reach Recommended Draft: Proposed Coordinated Review Process for Projects Below the Ordinary High Water Mark

Note: The timelines listed are legal maximums and are not meant to represent the time it would take to process any given permit application.



1 year to 2 Months Prior
The early review could be done a year to two months before the application is submitted.

Month 0

Month 1

30 days

Month 2

60 days

Month 3

90 days

Month 4

120 days

Month 5

150 days

Month 6

180 days