



# The Wetland Inventory Project

City of Portland  
Bureau of Environmental Services  
Bureau of Planning and Sustainability



# The Wetland Inventory Project

- The Wetland Inventory Project (WIP) is a comprehensive survey of wetlands within the City of Portland's urban services area. The survey provides maps and information about the city's wetlands.
- On-site determination fieldwork is conducted on public and private properties where site access is available.
- Off-site mapping methods are used on public and private properties where site access is not available.
- The results of WIP will update the City's Natural Resource Inventory (NRI). The NRI provides factual data for property owners, planners, and developers.



# Why is the city mapping wetlands?

Wetlands are valuable natural infrastructure that provide important functions, including:

- Cleaning and storing water
- Reducing flood risks
- Providing critical habitat for plants and wildlife

It is best to avoid wetlands when planning a project or building structures. Impacts to wetland functions are expensive to offset, and the costs are often shifted onto the greater community (e.g. pipes, pumps, levees).



# What is a wetland?

## Federal Definition (US Army Corps of Engineers 1982, Environmental Protection Agency 1980)

- Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

## Simplified Definition

- Natural and created areas that, under normal circumstances, are vegetated with wet-adapted plants sustained by seasonal or permanent wetness at or near the surface.



# What is a wetland? (continued)

- Not all wetlands have standing water and cattails. In fact most wetlands in Portland are only seasonally wet (saturated or inundated) and then dry down by the end of summer.
- Prolonged soil saturation is what creates a wetland and is caused by a high water table, perched rainwater, or frequent flooding. This is referred to as wetland hydrology.
- Prolonged soil saturation causes biochemical reactions in the soil that result in observable hydric soil indicators.
- Prolonged soil saturation favors the growth of wet-adapted plants (hydrophytes) over wet-intolerant plants (mesophytes and xerophytes).



# What is a wetland? (continued)

- Most wetlands in Portland have been altered directly or indirectly by agricultural, commercial, or residential development.
- Many wetlands altered by agricultural activities no longer “look like” wetlands. Plowing or grazing a field may temporarily obscure vegetation or soil indicators associated with wetlands, but these indicators will return if wetland hydrology is present and the site is left undisturbed.
- Many pasture and lawn grass species found in Portland are hydrophytes (wet-adapted plants). Tall fescue, colonial bentgrass, velvetgrass, and perennial rye are examples of grasses tolerant of saturated soil conditions.



# How do we identify properties with potential wetlands?

## **We Review Existing Maps and Aerial Photography**

- [National Wetland Inventory from US Fish and Wildlife Service](#)
- [Predominantly hydric soil map units from USDA NRCS Soil Surveys](#)
- [National Hydrography Dataset streams and waterbodies from USGS](#)
- [Wetlands, streams, and waterbodies from the City of Portland NRI](#)
- [Evidence of ponding or saturated soils on aerial photography](#)



# Examples of properties that may have wetlands

The following maps show the data staff used to identify properties that may have wetlands present

These maps are static





Bureau of Planning and Sustainability  
Innovation. Collaboration. Practical Solutions.  
City of Portland, Oregon

## Wetland Inventory Project

### West Columbia Slough

#### Legend

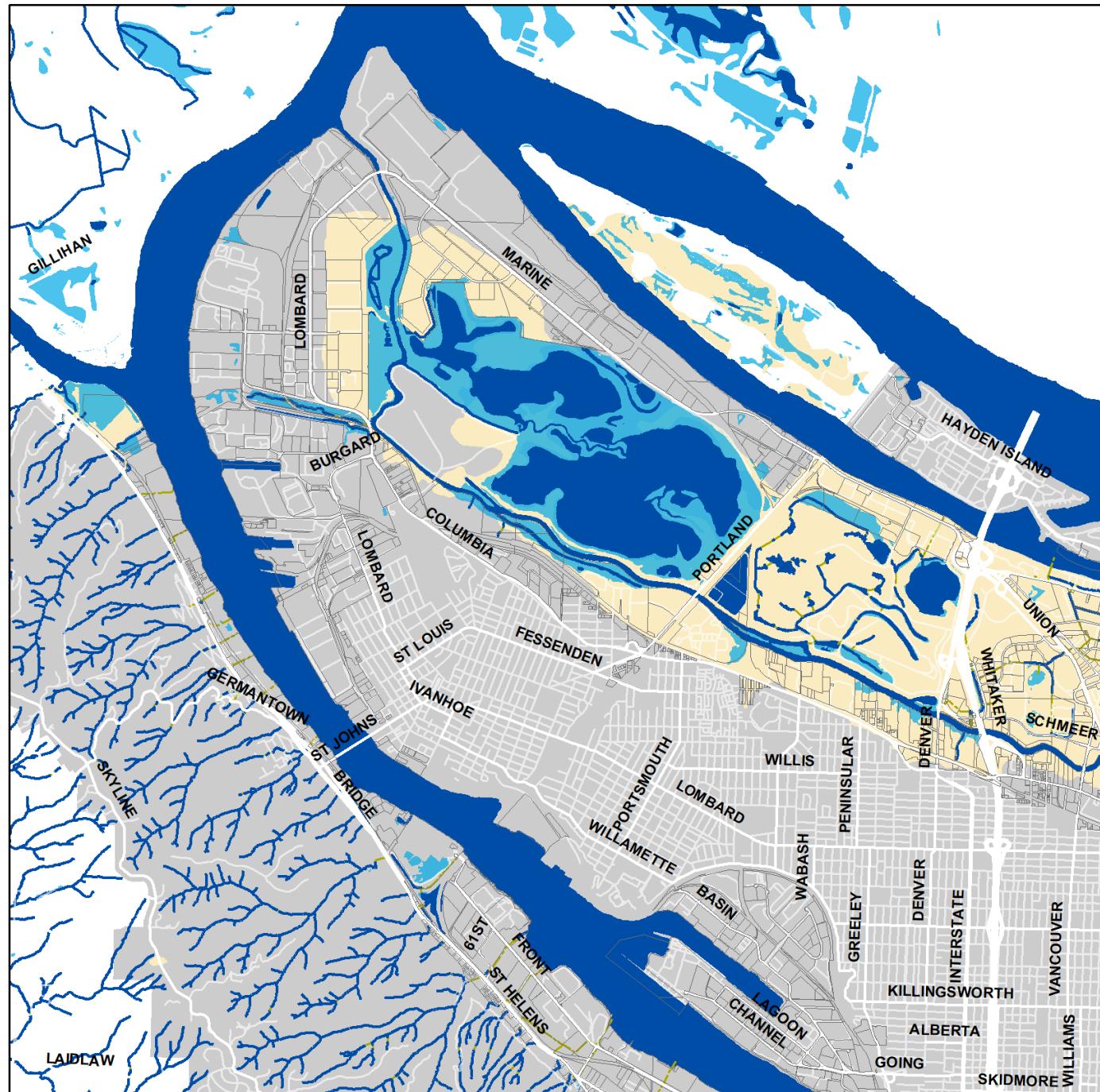
- Industrial Taxlots
- Piped Stream Segment
- Open Stream Channel
- Water Bodies
- Mapped Wetlands
- Hydric Soils
- City of Portland

**DRAFT**

March 20, 2020

The information on the map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.

0 0.5 1 Miles







Bureau of Planning and Sustainability  
Innovation. Collaboration. Practical Solutions.  
City of Portland, Oregon

## Wetland Inventory Project

### Central Columbia Slough

#### Legend

- Industrial Taxlots
- Piped Stream Segment
- Open Stream Channel
- Water Bodies
- Mapped Wetlands
- Hydric Soils
- City of Portland

**DRAFT**

March 20, 2020

The information on the map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.

0 0.5 1 Miles







Bureau of Planning and Sustainability  
Innovation. Collaboration. Practical Solutions.  
City of Portland, Oregon

## Wetland Inventory Project

### East Columbia Slough

#### Legend

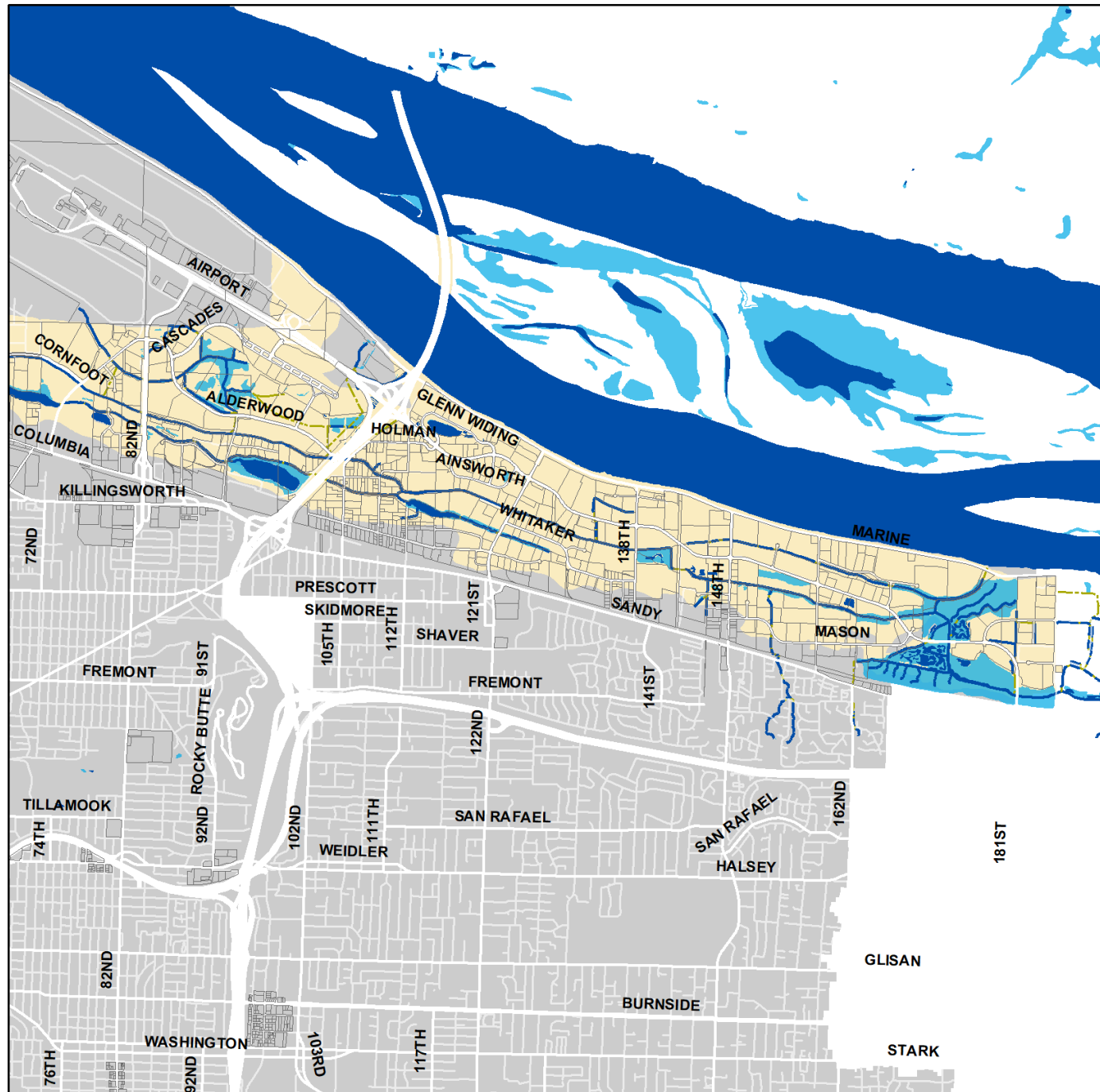
- Industrial Taxlots
- Piped Stream Segment
- Open Stream Channel
- Water Bodies
- Mapped Wetlands
- Hydric Soils
- City of Portland

**DRAFT**

March 20, 2020

The information on the map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.

0 0.5 1 Miles





# Letters requesting property access

If you received a letter requesting permission to access your property, then either:

1. One of the map layers indicates hydric soils, wetlands, or waters are present;
2. Aerial photography shows evidence of ponding or soil saturation;
3. Wetland conditions were observed from the public right-of-way; or
4. Your property is near or provides access to a potential wetland identified by 1, 2, or 3 above.



# Letters requesting property access (continued)

- If allowed, a consultant will come on to your property to conduct a brief study of the vegetation, soils, and hydrology to determine if wetland conditions are present. The consultant will record observations and map the boundary of the wetland.
- Without permission to access a potential wetland, the consultant will use remote sensing data and over-the-fence observations to approximate the boundaries of wetlands.



# How do we determine if a wetland exists?

We use an objective methodology developed at the federal level to support implementation of the Clean Water Act. Read more below:

- [1987 Corps of Engineers Wetland Delineation Manual](#)
- [2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region \(Version 2\)](#)

The method requires positive indicators of all three wetland criteria be present under normal circumstances:

- Wetland vegetation dominance
- Hydric soils
- Wetland hydrology



# How are wetlands regulated?

Wetlands are regulated on the federal, state, and local levels in Portland by the following rules:

- [Section 404 of the Clean Water Act](#)
- [Oregon's Removal-Fill Law](#)
- City of Portland's Zoning Code [33.430 Environmental Overlay Zoning](#) and [33.515 Columbia South Shore](#)

[Wetland Land Use Notifications](#) are issued by the city to the state when a local permit is requested to develop areas [where wetlands may be present](#).



# If a wetland is discovered and mapped, will regulations be added?

- Regardless of when they are mapped, wetlands are regulated at the federal and state level because they provide critical functions such as storing water that reduce flood risk for your property and the properties around you.
- When a property owner wants to develop their site, wetlands may be discovered and protected regardless of Wetland Inventory Project mapping.
- Mapping allows for better site planning to avoid building in existing wetlands and reduces costs associated with replacing wetland functions that have been reduced or eliminated by development.
- In Portland, environmental overlay zones may be extended to protect wetlands that were not previously mapped.



# More information about this project and wetlands

## **Note**

**Due to the COVID-19 emergency, parts of the project may be delayed including private property wetland determination site visits.**

**If you have given permission to access your property and fieldwork does not occur during the 2020 field season, you will be contacted to request an extension. If necessary, fieldwork will be conducted in Spring 2021.**



# Find out more

**Staff are here to answer your questions:**

Call 503-823-4225

Email [BPSNRI@portlandoregon.gov](mailto:BPSNRI@portlandoregon.gov)

More about wetlands: [DSL Wetlands in Oregon Factsheet](#)

Due to the COVID-19 emergency staff are telecommuting, which may delay how quickly we can return your phone calls.

Thank you for your understanding.