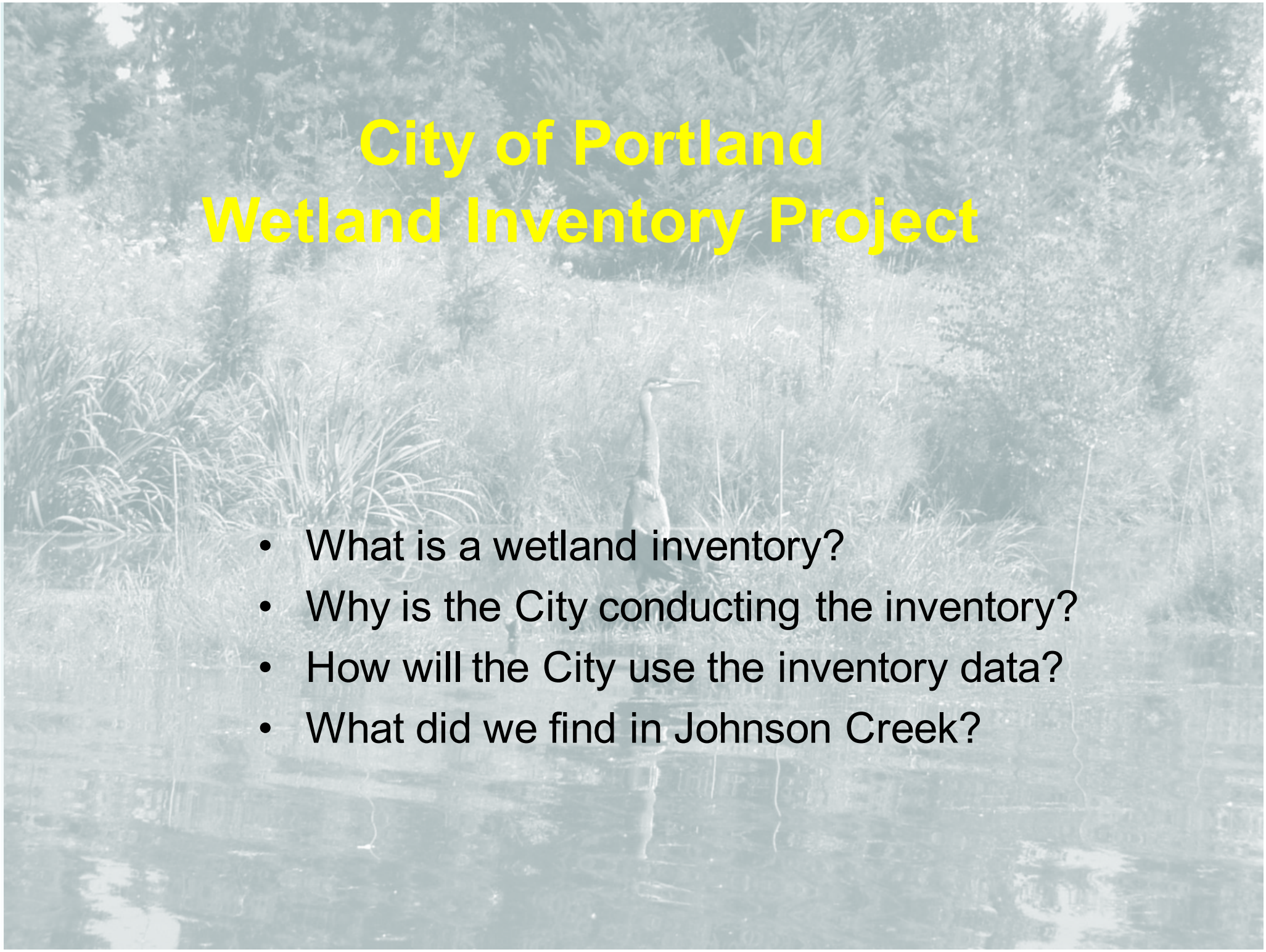
City of Portland Wetland Inventory Project

What is the news for Johnson Creek watershed?



City of Portland
Wetland Inventory Project

- What is a wetland inventory?
- Why is the City conducting the inventory?
- How will the City use the inventory data?
- What did we find in Johnson Creek?

City of Portland
Wetland Inventory Project

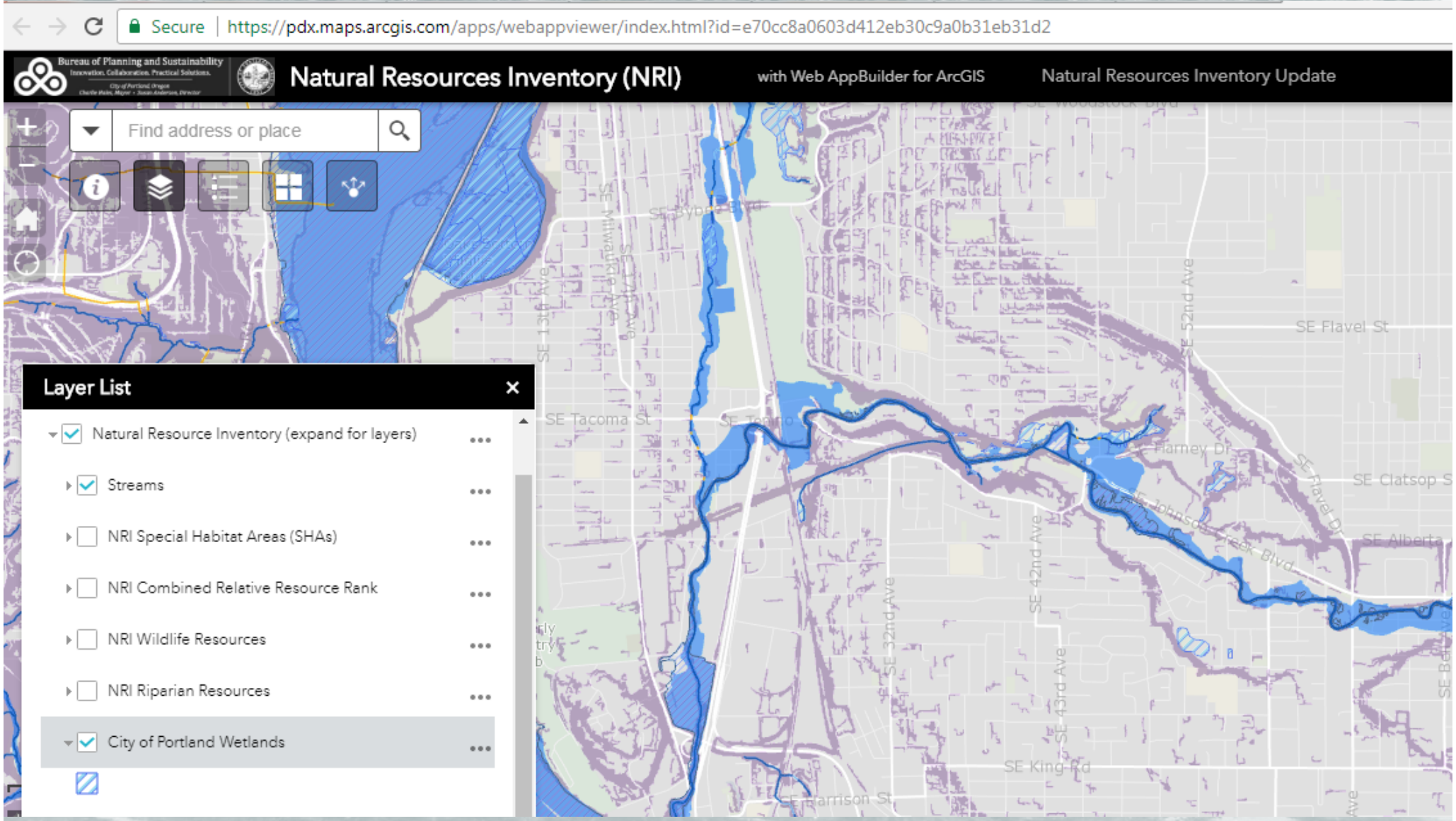
Phase 1 – Inventory of publicly owned lands

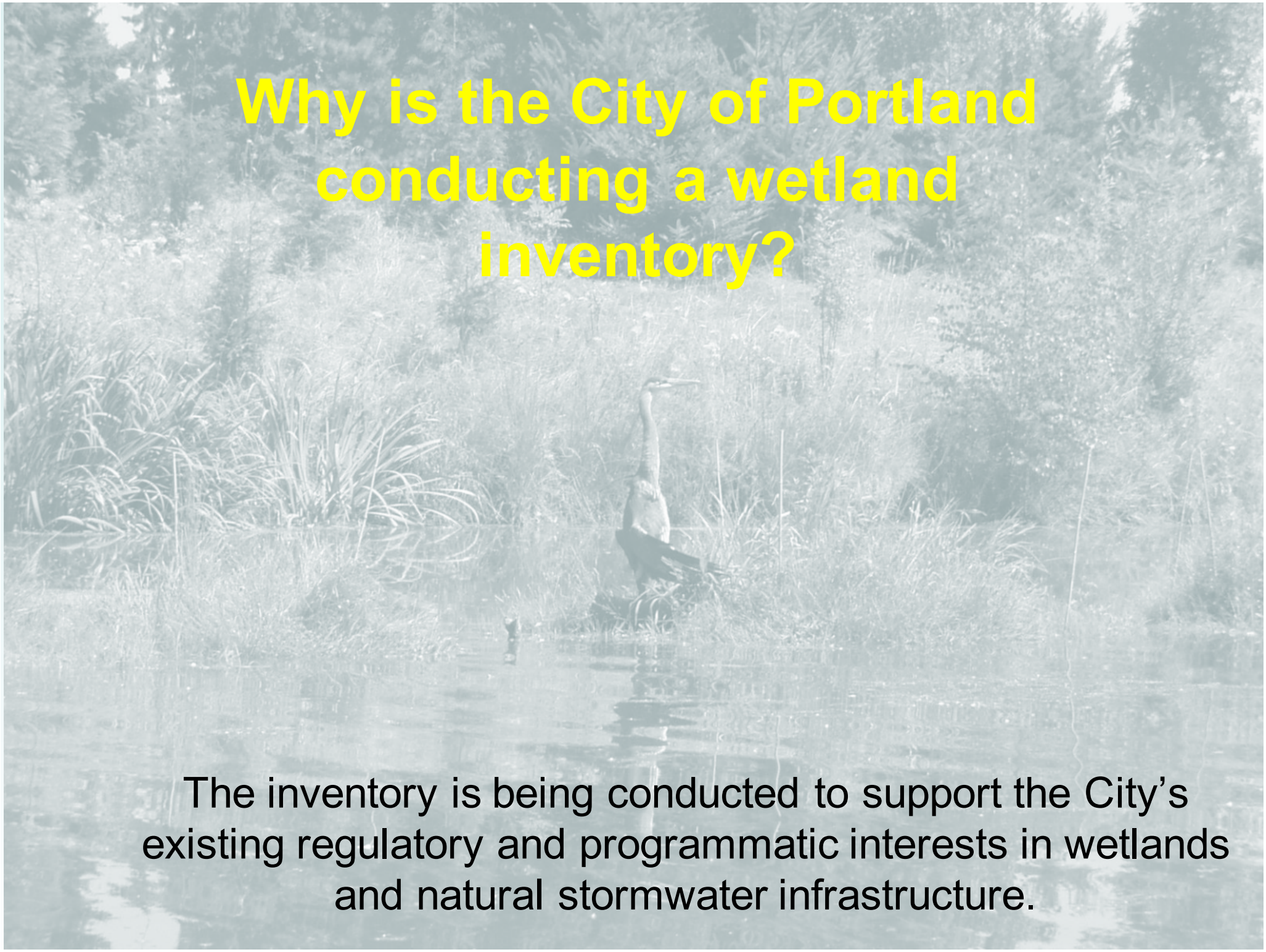
- Current work to be completed Winter 2019

Phase 2 – Inventory of private lands (voluntary)

- Upcoming work, to be completed with the City Stormwater System Plan

What is a wetland inventory?

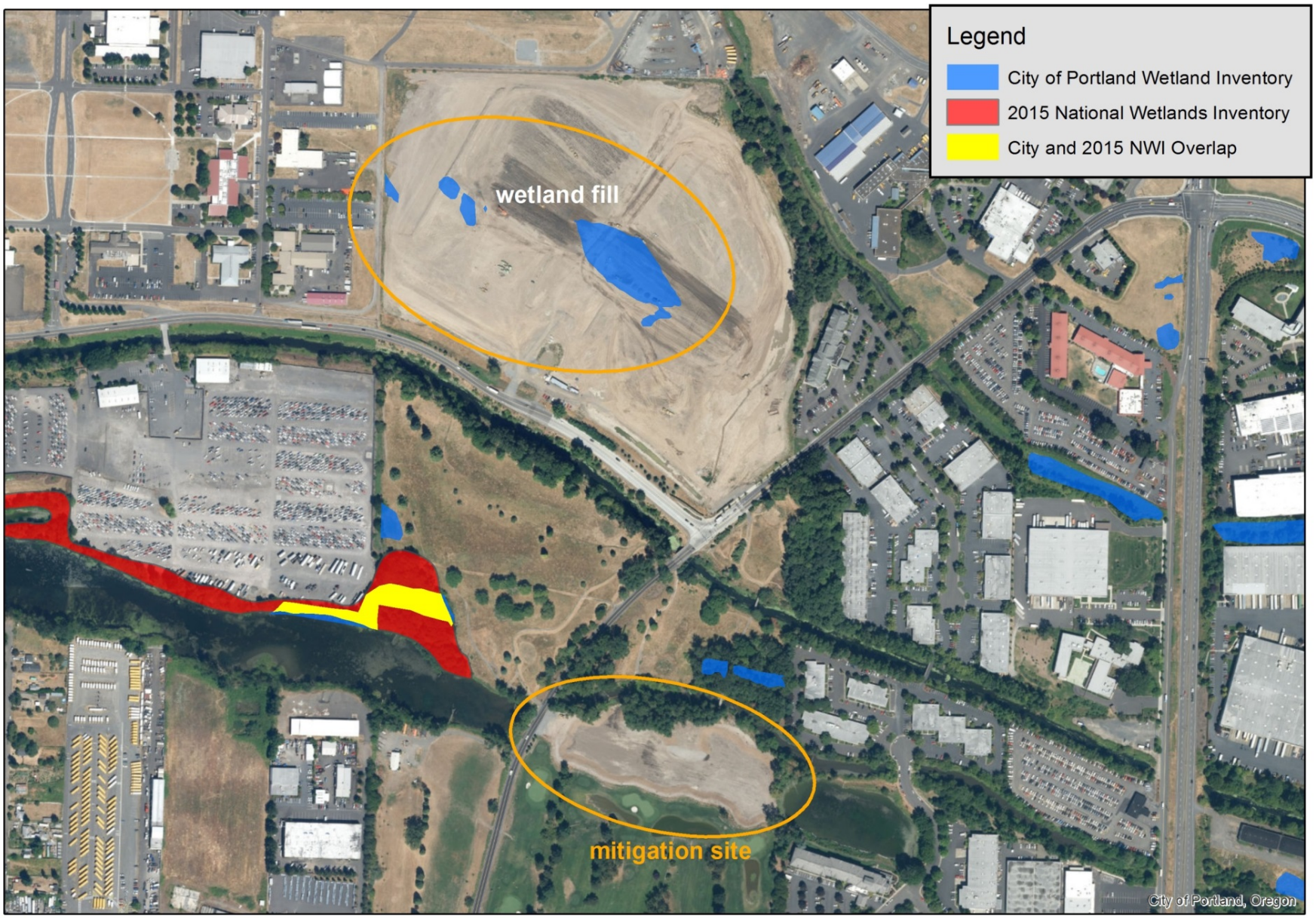




Why is the City of Portland conducting a wetland inventory?

The inventory is being conducted to support the City's existing regulatory and programmatic interests in wetlands and natural stormwater infrastructure.

Example of data discrepencies



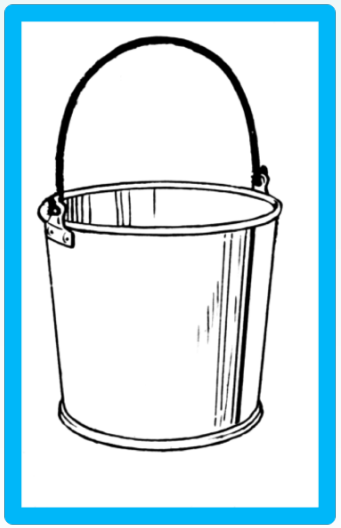
Example of need to update mapping of wetland fill & mitigation sites

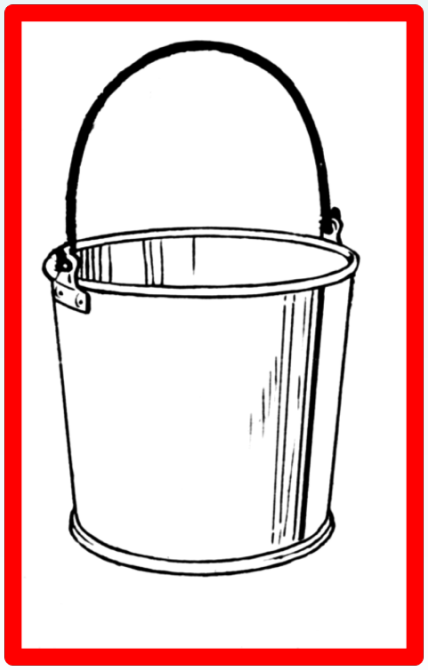
0 250 500 1,000 Feet

ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers

Wetlands Data Confidence circa 2016

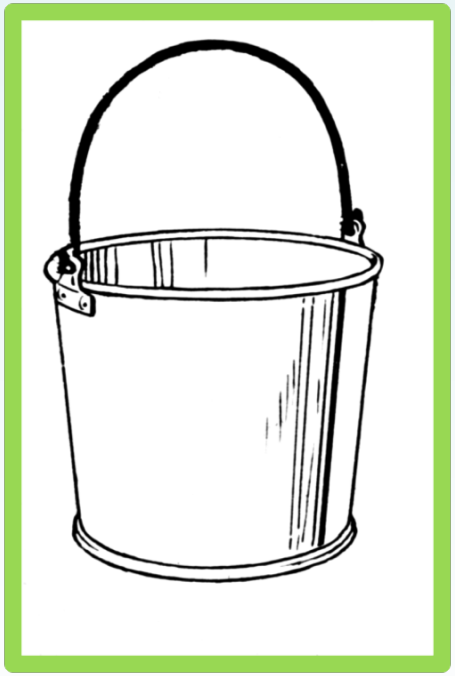
High confidence Small volume of data	Medium confidence Medium volume of data	Low confidence Large volume of data
1. City of Portland Restoration and Enhancement Projects 2. RLIS/DSL updates	1. City of Portland Wetlands 2. Mapping Circa 2010	1. 2015 NWI mapping 2. Topographic Wetness Indicator

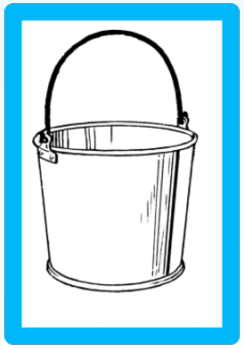


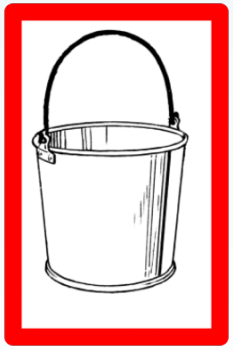


Our Goal - Wetlands Data Confidence 2019

High confidence	Medium confidence	Low confidence
1. City of Portland Restoration and Enhancement Projects 2. Ongoing RLIS/DSL updates **3. WIP Field Data**	Topographic Wetness Indicator prediction tool	Unconfirmed wetland sites (inaccessible for various reasons)



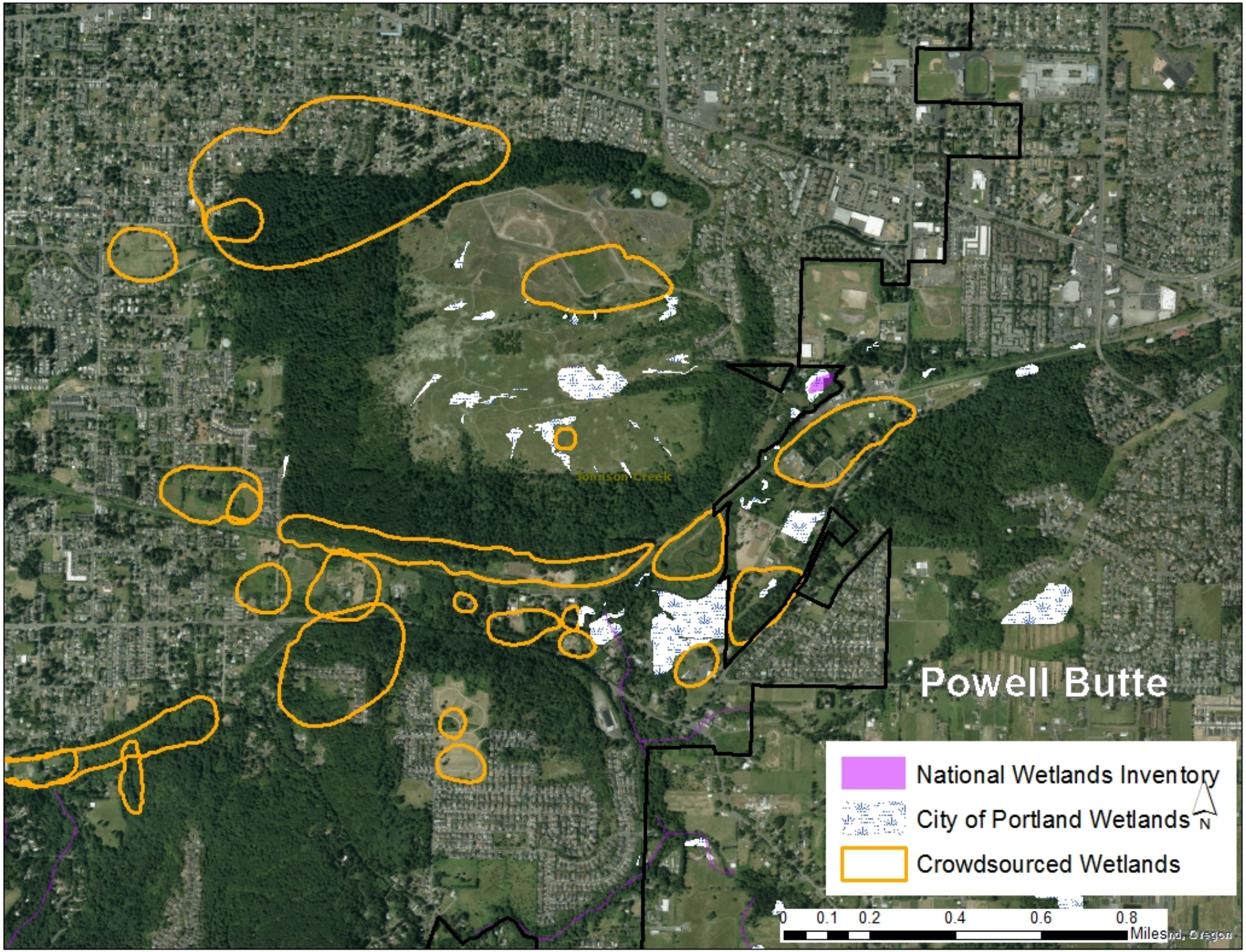




How will the City employ the data?

1. Land use planning
2. Conservation and restoration planning,
3. Restoration projects
    - Design and construction
    - Long term maintenance and adaptive management

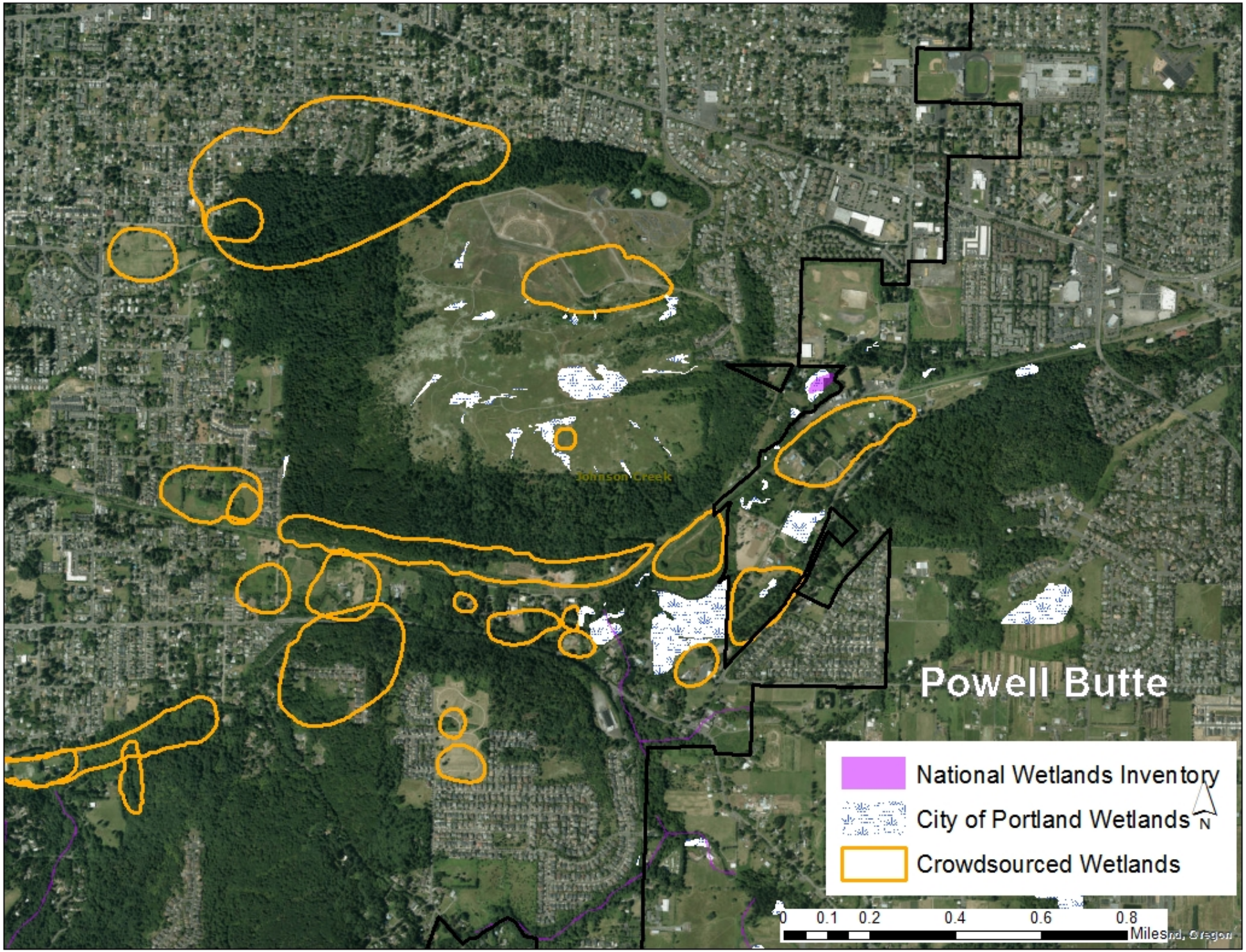
What wetlands did we find in Johnson Creek?


Powell Butte
National Wetlands Inventory
City of Portland Wetlands
Crowdsourced Wetlands
N
0 0.1 0.2 0.4 0.6 0.8
Miles

New wetlands in the JC watershed

59 acres of new wetlands in the City of Portland Wetland Inventory

	# of sites	acres
No wetland found	18	na
Wetland verified	2	1.7
Wetland modified	3	9.5
New wetlands not previously inventoried	29	48.7


Powell Butte
National Wetlands Inventory
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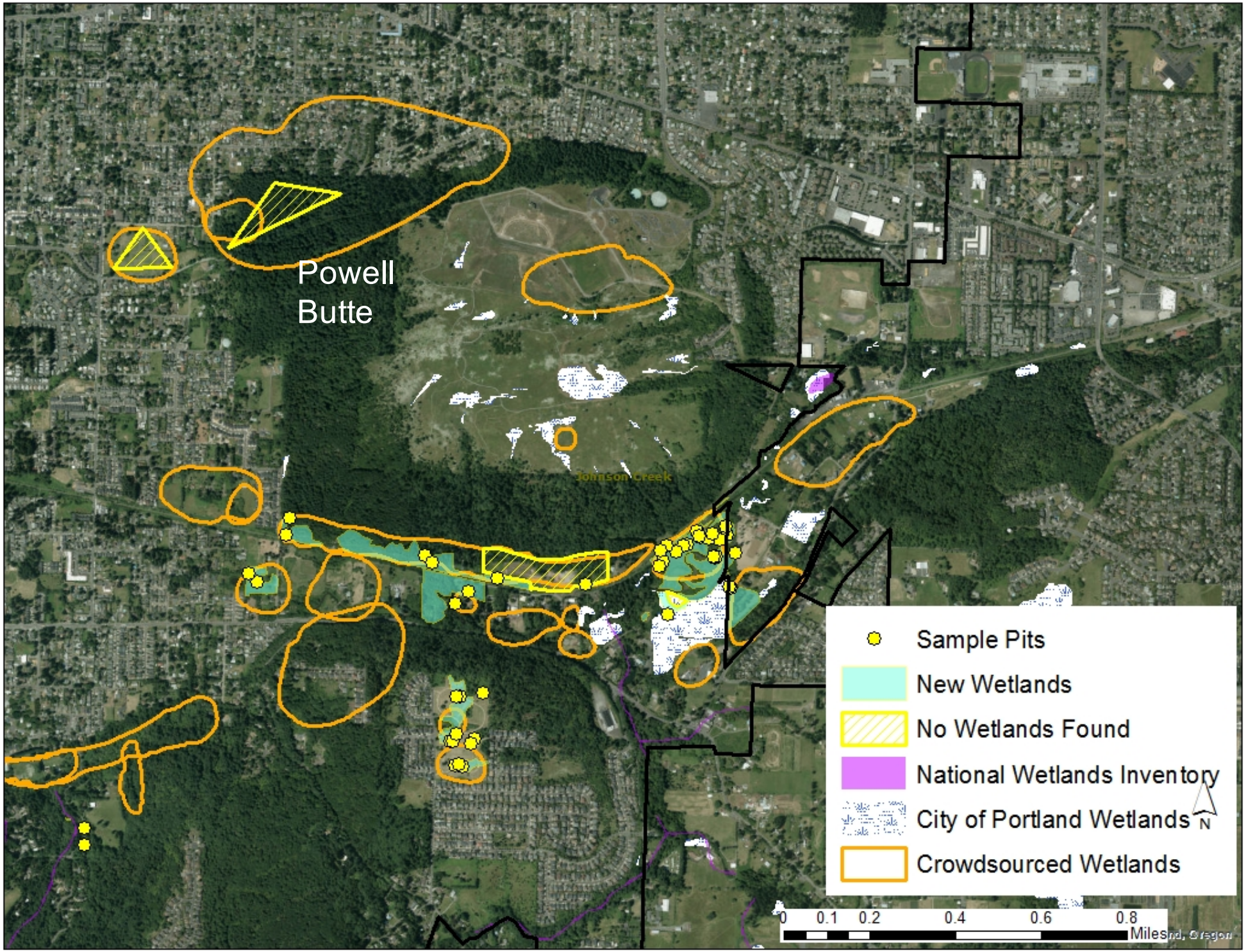
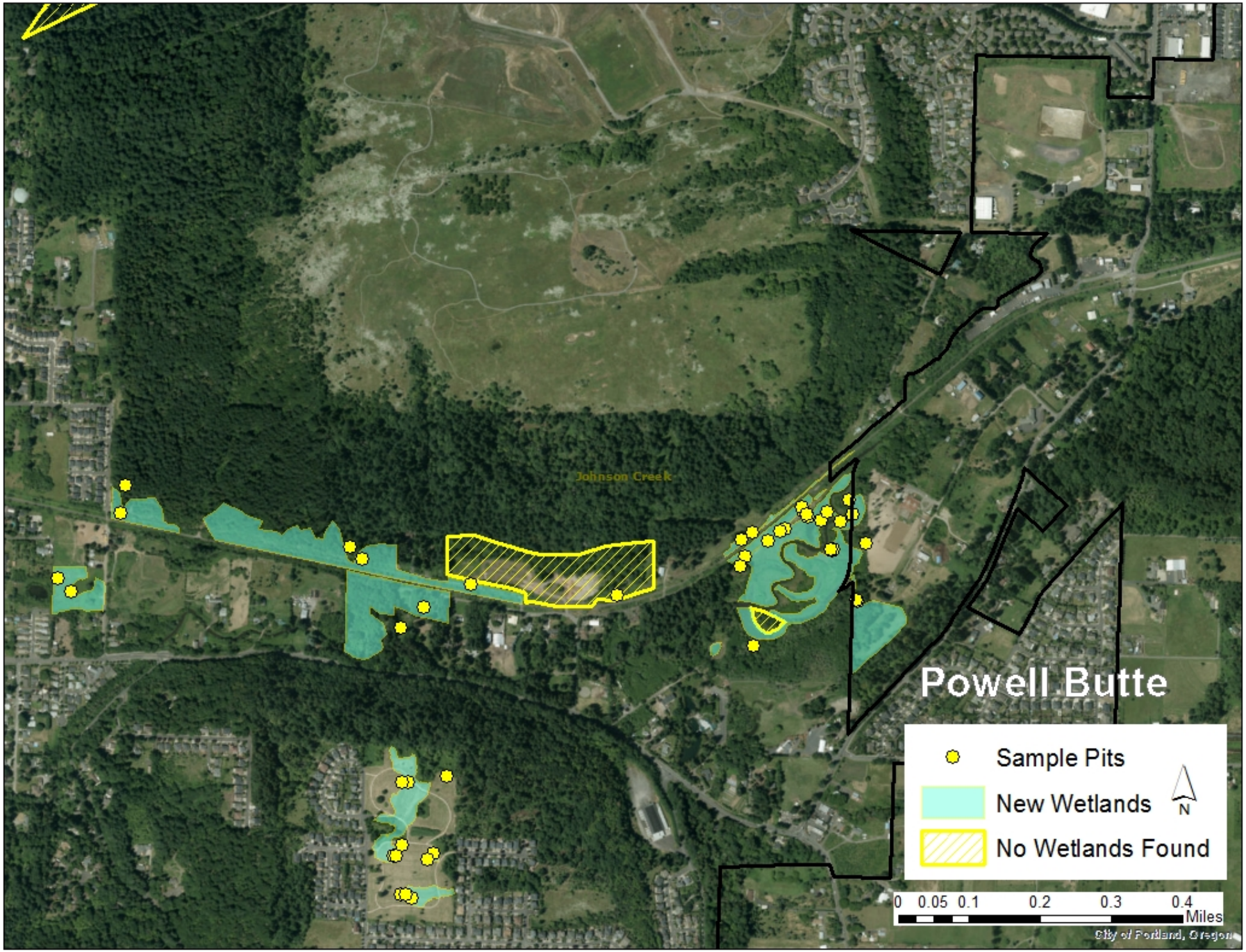
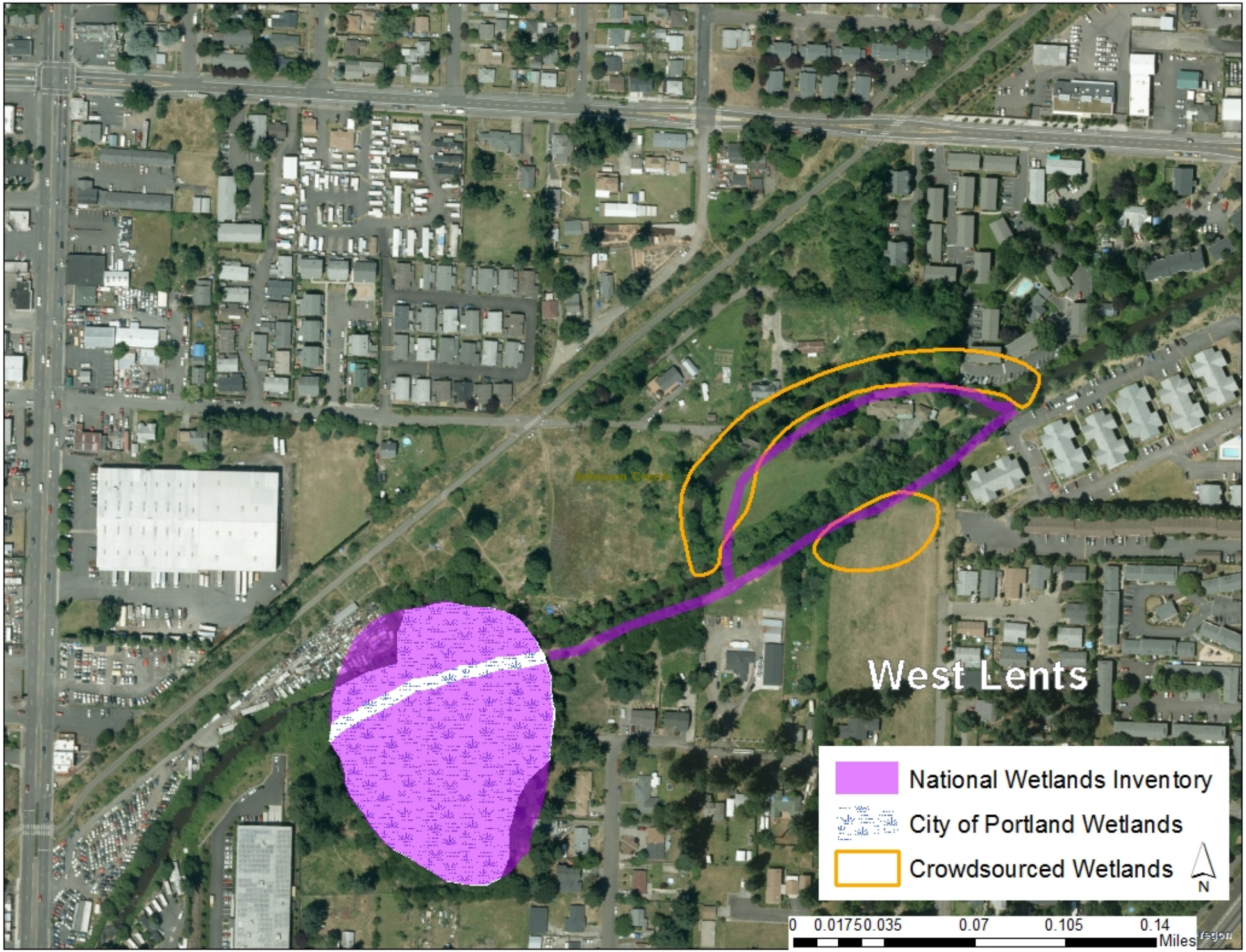
N
0 0.1 0.2 0.4 0.6 0.8
Miles


Powell
Butte
Johnson Creek
Sample Pits
New Wetlands
No Wetlands Found
National Wetlands Inventory
City of Portland Wetlands
Crowdsourced Wetlands
N
0 0.1 0.2 0.4 0.6 0.8
Miles


Johnson Creek
Powell Butte
Sample Pits
New Wetlands
No Wetlands Found
N
0 0.05 0.1 0.2 0.3 0.4
Miles
City of Portland, Oregon

Brookside
National Wetlands Inventory
City of Portland Wetlands
Crowdsourced Wetlands
N
0 0.0225 0.045 0.09 0.135 0.18
Miles

Brookside
Sample Pits
New Wetlands
No Wetlands Found
0 0.0225 0.045 0.09 0.135 0.18
Miles


West Lents
National Wetlands Inventory
City of Portland Wetlands
Crowdsourced Wetlands
N
0 0.0175 0.035 0.07 0.105 0.14
Miles

West Lents
Sample Pits
New Wetlands
No Wetlands Found
0 0.0175 0.035 0.07 0.105 0.14
Miles

Oregon Rapid Wetland Rapid Assessment Protocol

Scores 16 wetland functions

1. Water Storage and Delay
2. Sediment Retention and Stabilization
3. Phosphorus Retention
4. Nitrate Removal & Retention
5. Thermoregulation
6. Carbon Sequestration
7. Organic Matter Export
8. Aquatic Invertebrates
9. Anadromous Fish
10. Non-Anadromous Fish
11. Amphibian and Reptile
12. Waterbird Feeding
13. Waterbird nesting
14. Songbird, Raptor, & Mammal Habitat
15. Pollinator Habitat
16. Native Plant Diversity

Science Integration Division - WIP Team

Paul Ketcham / Biological Sciences Manager
Mary Bushman / Project Manager
David Helzer / Data Management Task Lead
Jennifer Antak / Field work Task Lead
Chad Smith / Fish Biologist