

Former Frontier Leather Tannery Site Site Assessment Results and Status

July 13, 2016



Outline

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3. Agency Notifications
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5. Site Assessment Results
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Site & Project Background



Site & Project Background

1947	Tannery operations begin west of Site
Mid 1960s	Sedimentation lagoons constructed on-Site
1967	First sedimentation lagoon discharge
1985	Second sedimentation lagoon discharge
Late 1980s	Lagoons breached
1990	Cleanup activities begin west of the Site
Early 1990s	Tannery operations end
2003-2004	DEQ investigation of sedimentation lagoon property
2008	Cleanup activities complete west of the Site
Late 2000s	Washington County acquires property - tax foreclosure
2014	City receives EPA Brownfields Grant

Site & Project Background

Why is the City investigating this Site?

Underused property

Zoned for jobs

Public works yard relocation

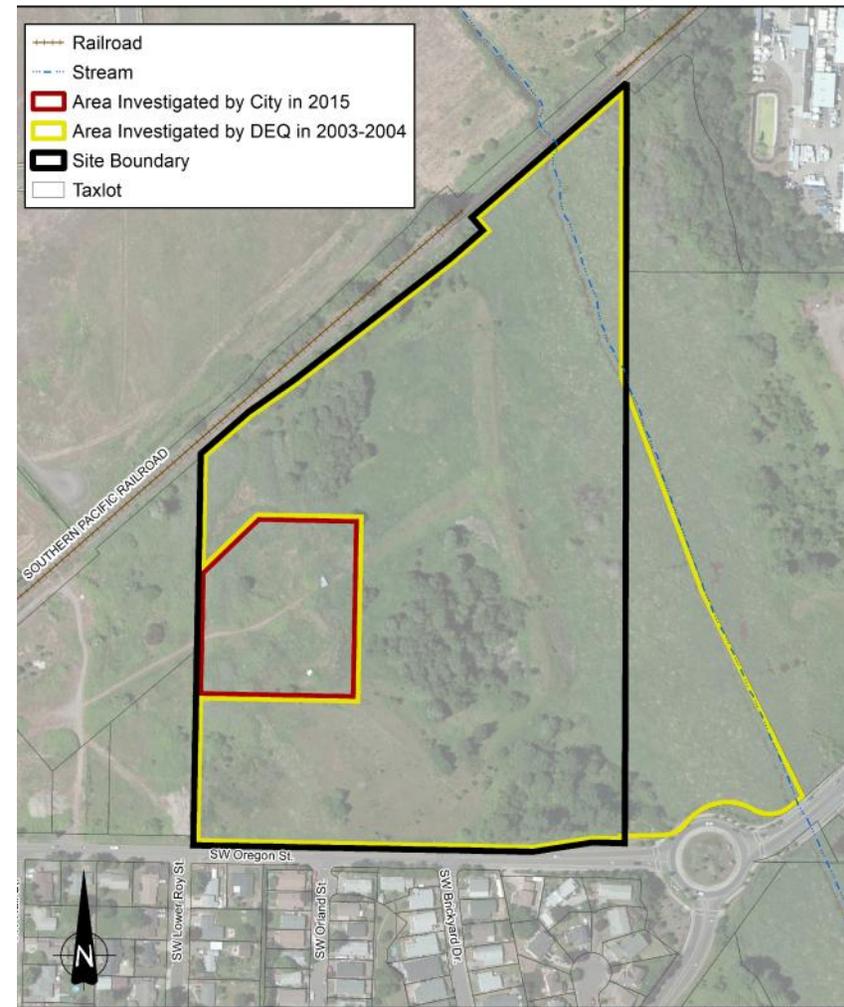
EPA provided funding

Sampling Plan Preparation

Complete the assessment
started by DEQ in 2003-2004

Define the extent of the hide-split
landfill on Tax Lot 602

Investigate soil and groundwater
on Tax Lot 602



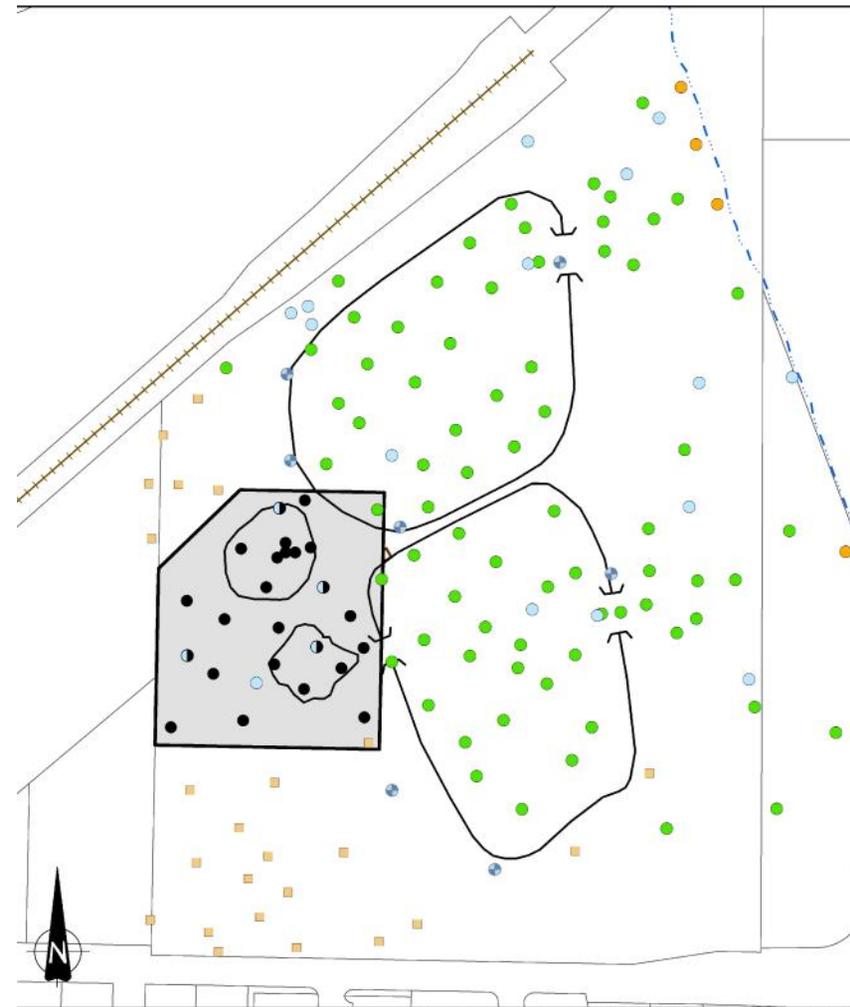
Sampling Plan Preparation

DEQ's Assessment

- 24 test pits
- 73 soil sampling locations
- 7 monitoring wells
- 7 upland seep locations
- 9 sediment sample locations
- 4 surface water sample locations
- Tested for VOCs, SVOCs, metals, pesticides, and PCBs

Brownfield Assessment

- Geophysical survey
- 21 soil borings
- 4 grab groundwater samples
- Tested for metals and VOCs



Agency Notifications

Federally funded projects require notifications to comply with the:

Endangered Species Act

National Historic Preservation Act

Notifications issued to:

Environmental Protection Agency (through the Brownfield Program PM)

Oregon State Historic Preservation Office

Four Oregon Native American Tribes:

1. Coquille
2. Grand Ronde
3. Siletz
4. Warm Springs

Agency Notifications

Agency Issues:

Would there be work in wetlands?

Would work be scheduled during or after plants had flowered?

Lack of cultural survey information

Use of an archeological monitor

Resolutions:

No work planned in wetland areas

Work scheduled to occur after flowering was complete

Fieldwork conducted with awareness for cultural resources or remains

Operated under an “Inadvertent Discovery Plan” instead of using an archeological monitor

Site Assessment Field Activities

Geophysical Investigation

November 2 - 4, 2015

Subsurface Investigation

November 10 - 11, 2015

Waste Pickup

February 2, 2016



Site Assessment Field Activities

Did last year's fire impact the Brownfield work?

No

How far did the fire reach?

Approximately 1/3 of the property burned

Tax Lot 602 not significantly burned



Questions?

Site Assessment Results

Extent of hide-split landfill defined

Soil - metals concentrations are greater than background levels in source areas

Hide-split landfill (red)

2 aeration ponds (yellow)

2 sedimentation lagoons (green)

Localized areas downstream of lagoon berm breaches (pale green)

Localized area of Rock Creek downstream of the north sedimentation lagoon breach (pale green)



Site Assessment Results

Groundwater

Chromium and manganese
detected most frequently

Other metals detected less
frequently

Mercury not detected

Other compounds

VOCs and SVOCs infrequently
detected in groundwater at very
low concentrations

Pesticides detected in sediment
along Rock Creek are not site-
related

PCBs not detected



Site Assessment Results

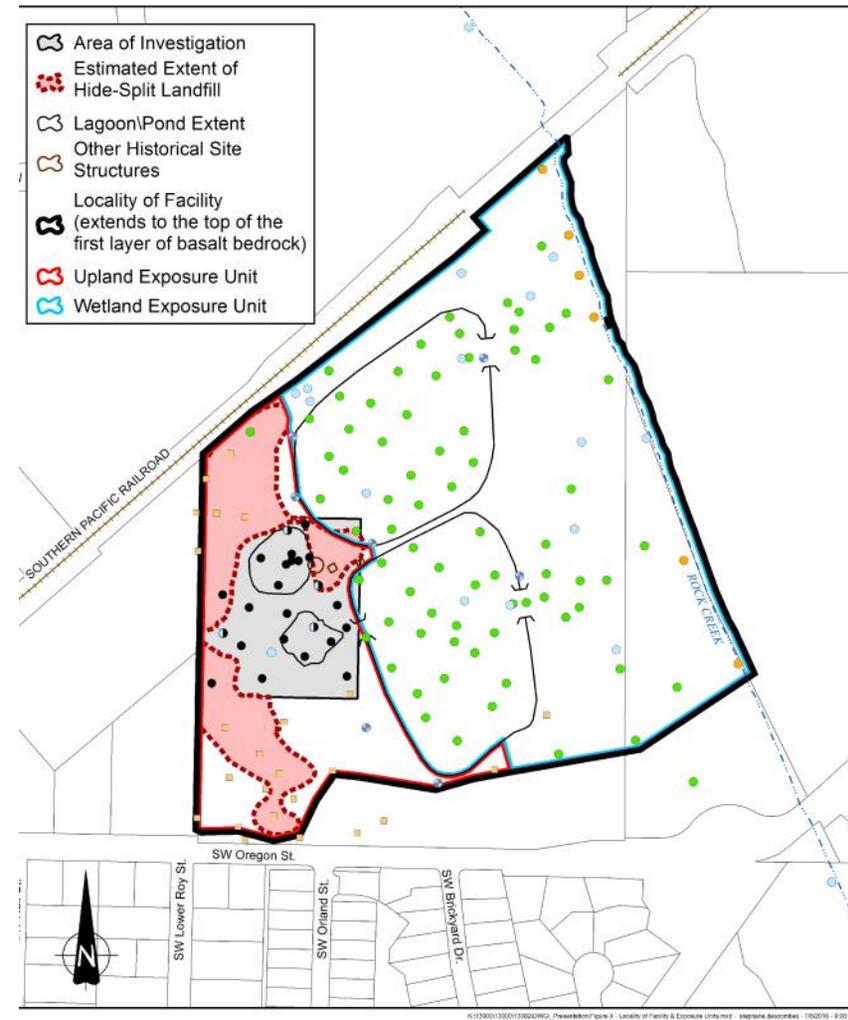
Evaluating Potential Human Health Risks

Potential receptors

1. Occupational Worker
2. Construction Worker
3. Excavation Worker
4. Trespasser / Recreational User

Potential exposure routes

Exposure units



Site Assessment Results

Evaluating Potential Human Health Risks

Each sample result is compared to the most protective risk-based screening value published by DEQ (or EPA)

Sample results greater than the risk-based screening values undergo further evaluation

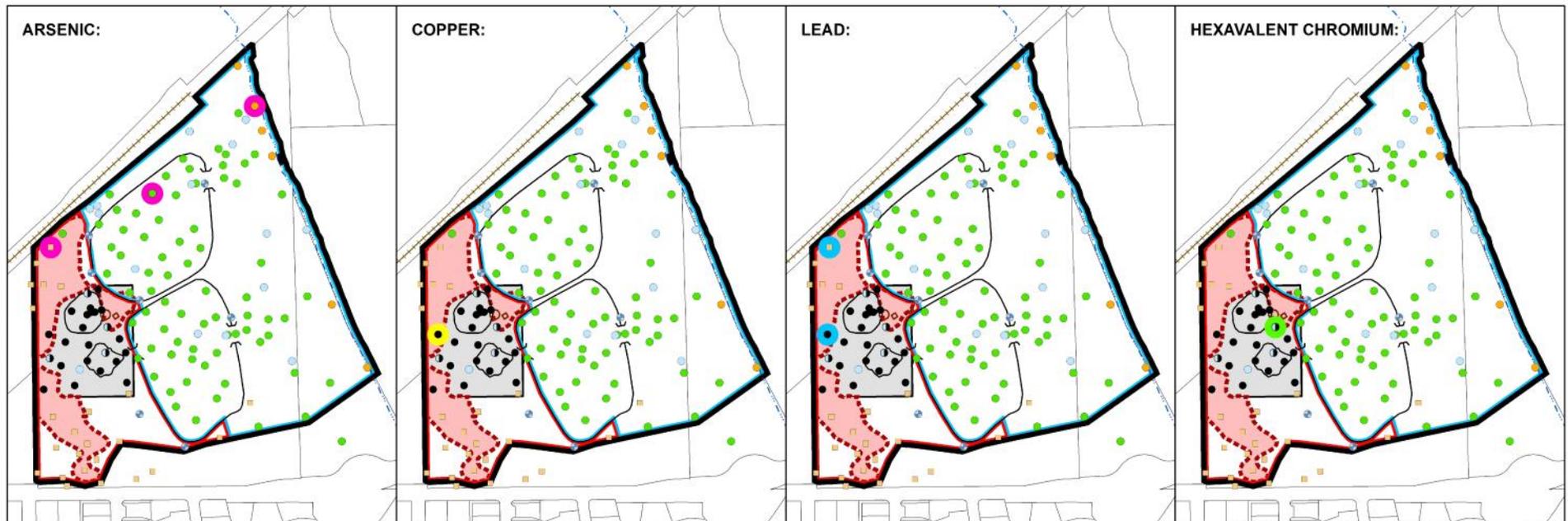
Soil – 4 metals exceed risk-based screening values

1. Arsenic
2. Copper
3. Lead
4. Hexavalent chromium

Groundwater – no contaminants exceed risk-based screening values

Site Assessment Results

Evaluating Potential Human Health Risks



Questions?

Redevelopment and Human Health



Public Health
Prevent. Promote. Protect.

- ▶ **Leading Health Conditions in Washington County**
 - ▶ Asthma
 - ▶ Cancer
 - ▶ Depression
 - ▶ Obesity/overweight



Brownfields & Economic Opportunity



Public Health
Prevent. Promote. Protect.

- ▶ New opportunities in Old Town
- ▶ Employment
- ▶ Property values



Brownfields & Safety



Public Health
Prevent. Promote. Protect.



Questions?

Site Assessment Results

Ecological Risks – Previously evaluated by DEQ

DEQ's ecological risk assessment is still considered valid because:

- No future upland ecological habitat anticipated

- No new data were generated in wetland areas

- No change in ecological habitat since DEQ's investigation

- Prior approach and assumptions are still valid

Sampling plan and final report each presented this status

- DEQ and EPA each approved the sampling plan

- DEQ approved final report

Site Assessment Results

Ecological Risks – Previously evaluated by DEQ

Three tiers of evaluation performed

Level I = assess presence of receptors, habitat, exposure pathways

Level II = screening level assessment

Streamlined Level III = evaluate representative specie

Site Assessment Results

Ecological Risks – Previously evaluated by DEQ

Level I Results

Habitat is present on-Site

Receptors are present on-Site

Threatened & Endangered Species are present in the vicinity

Potential exposure routes: ingestion, dermal contact, inhalation, root contact

Level II Results

Only metals were retained for further evaluation

Other contaminants were not site-related or not detected

Soil / sediment – multiple metals exceeded screening level values

Rock Creek surface water – no metals exceeded water quality criteria

Site Assessment Results

Ecological Risks – Previously evaluated by DEQ

Streamlined Level III Process

- Focused on chromium

- Most sensitive receptor type = bird

- American Robin selected as the representative specie

- Exposure evaluated through the bioaccumulation pathway (i.e. food chain)

- Site-specific risk-based concentration (RBC) developed

Site Assessment Results

Ecological Risks – Previously evaluated by DEQ

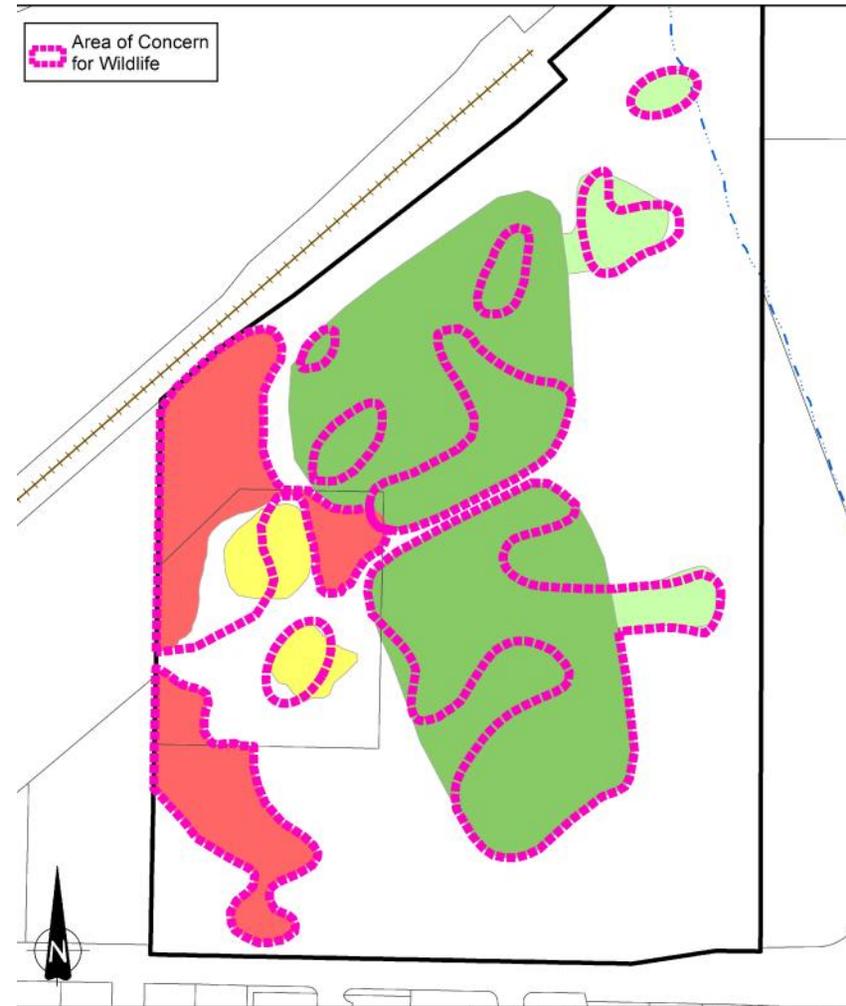
Streamlined Level III Results

Two RBCs were developed

1. Non-T&E RBC – population level
2. T&E RBC – individual level

A “chromium management area” (CMA) established

CMA covers areas of concern for most other metals



Questions?

Health and Nature



Public Health
Prevent. Promote. Protect.

- ▶ New opportunities for access to nature
 - ▶ Trails
 - ▶ Access to wetlands – habitat restoration



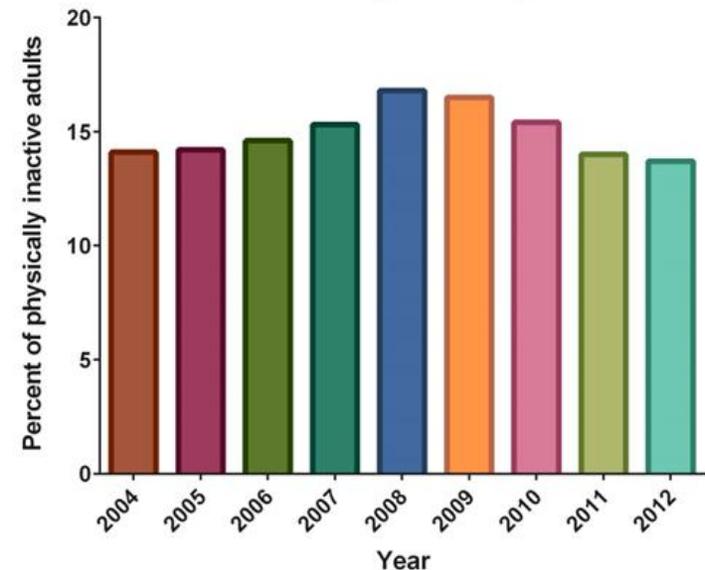
Health and Nature



Public Health
Prevent. Promote. Protect.

- ▶ Access to nature has physical and mental health benefits
 - ▶ Lower levels of mortality and illness
 - ▶ Higher levels of outdoor physical activity
 - ▶ Reduction in stress
 - ▶ Greater social capital

Percent of physically inactive adults
Washington County



Questions?

Project Status

Site assessment of contamination is complete

Final assessment report submitted to DEQ - June 2016

Site assessment of wetland is ongoing:

Fieldwork notifications - March/April 2016

Fieldwork conducted - May 2016

A report is in progress; findings to be presented at the next public meeting

Next Steps

Cleanup planning can begin

- Develop a series of cleanup alternatives

- Evaluate each alternative

- Identify the preferred alternative

- Submit a draft cleanup plan to DEQ and EPA

- Present draft cleanup plan at a future public meeting



Public Health
Prevent. Promote. Protect.

Next Steps – Public Health

- ▶ Promote a well-rounded approach to redevelopment to include health
- ▶ Measure changes in community health
- ▶ Encourage early community involvement in decision making
- ▶ Promote relationships among, agencies, partners, and communities

Questions?