Agenda

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Meeting:	Smith and Bybee Wetlands Advisory Committee (SBAC)
Date:	Tuesday, Jan. 29, 2019
Time:	5:30 to 7:30 p.m.
Place:	Metro Regional Center - Room 270 600 NE Grand Ave., Portland

---

5:30 p.m.	Welcome and introductions	All
5:35 p.m.	Approve November 2018 meeting minutes	Troy Clark
5:40 p.m.	St. John's Prairie landfill management and public interface	Michael Guebert
6:30 p.m.	Smith and Bybee Fund discussion	Troy Clark
7:05 p.m.	Conservation projects updates	Jonathan Soll
7:25 p.m.	Goals and next meeting agenda	All
7:30 p.m.	Adjourn	

Upcoming SBAC meetings:
Tuesday, March 26, 2019 at Metro Regional Center
For agenda/schedule information, contact Annie Toledo at 503.813.7565 or annie.toledo@oregonmetro.gov

Meeting minutes

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Smith and Bybee Wetlands Advisory Committee

January 29, 2019

Committee members in attendance

Troy Clark* .....Audubon Society of Portland (Chair)
Carrie Butler* .....Port of Portland (Vice Chair)
Matthew Lee* .....Columbia Slough Watershed Council
Emily Roth* .....Friends of Smith & Bybee Lakes
Kevin Huniu* .....City of Portland, Bureau of Environmental Services
Jonathan Soll* .....Metro, Parks and Nature
Sara Henderson* .....St. Johns Neighborhood Association
Patt Opdyke* .....North Portland Neighbors

Others in attendance

Michael Guebert .....Metro, Parks and Nature
Ann Toledo .....Metro, Parks and Nature

Committee members not in attendance

Jennifer Devlin* .....City of Portland, Bureau of Environmental Services
Bill Briggs* .....Oil Re-Refining Company
Eric Tonsager* .....Oregon Bass and Panfish Club
Pam Arden* .....40-Mile Loop Trust

*Denotes voting Smith and Bybee Wetlands Advisory Committee member.

WELCOME

The November 27, 2018 meeting minutes were approved.

ST. JOHN'S PRAIRIE LANDFILL MANAGEMENT AND PUBLIC INTERFACE

Mike Guebert, manager of the St. Johns landfill, presented an in-depth overview of the landfill's history dating back to 1850. *Attachment 1.*

History and operations

In the 1850s the area between the Columbia Slough and the Columbia River was a series of wetlands. In the 1930s, the beginning of the St. Johns landfill started to show in aerial photographs. Seasonal wetlands were filled in and the area became war housing—built the same time as Vanport. In that era, people didn't understand the importance of wetlands or the detrimental effects of putting a landfill in the wetlands. Areas like that were thought of as a place to fill and turn into productive land. The thought was that if they put a landfill in the wetlands, contamination wouldn't leach out very far because water doesn't escape easily. The St. Johns landfill began operating in 1940. During the 1948 Vanport flood houses were destroyed and garbage went everywhere.

In 1980 Metro took over ownership of the landfill from the City of Portland. Metro began searching for a new site for the landfill, but the original site identified fell through due to neighbor opposition. This site would have been what the Wildwood Golf Course is now. While the search continued, the final expansion area was created in 1983 to accommodate more waste from the growing Portland

metro region. In 1991 the St. Johns landfill closed permanently and the current landfill located about 130 miles east of Portland in Arlington, Oregon opened for business.

Two-hundred and forty acres of HDPE liner was placed over the garbage and a gas extraction system was installed on top of the liner. The landfill cross-section contains 70 feet of garbage on the bottom, clay on top of that, then the liner, followed by one foot of sand and about one foot of topsoil. Trees and other plants can be planted here; the roots don't penetrate the liner. The idea is to shed water, but that causes the area to be really dry in the summer months.

The permanent infrastructure put in place to manage the methane produced by decomposing organic material was erected in 1995. Mike explained the technical details of landfill operations and how approximately 180 gas wells were installed to pull gas out at each well location. He explained the importance of the liner and not allowing for liner tears which would increase the chances of oxygen penetrating the decomposing material; potentially causing subsurface fires and other dangerous conditions. In addition, holes in the liner will cause methane to be released which is a harmful greenhouse gas. Settling of the waste can also cause tears in the liner, but the bulk of the decomposition happens right away and subsequent breakdown is minimal. Therefore, there is now little risk of the garbage settlement to cause future issues.

Metro began selling the methane produced to Ash Grove Cement Company in 1999 and the compressor station began operating at that time. Ash Grove constructed the facility along with a 2-mile long buried pipeline under the slough. They used the methane gas for their line production purposes and Metro generated a lot of money through the gas they sold to Ash Grove. Since there is no new garbage being added to the site, inevitably the amount of gas produced declined. As the equipment aged and the gas declined, it wasn't economical for Ash Grove to continue its operation at the site. In 2018, the facility was demolished.

If a legal agreement is reached with DEQ, two mudflat areas will be treated for contamination (summer 2019) with a carbon product called SediMite. A committee member brought up the concern that the proposed treatment areas are great bird habitat; that birds might ingest this material. Mike responded that the product is made up of 50 percent sand; it will work its way underneath the surface, binding up the contaminants to make them non-bioavailable to benthic organisms. Landfill gas production will continue to decline every year, and in an estimated 12-15 years the production will be too low to burn in the existing flare. Alternative measures to deal with the remaining gas will be evaluated at that time and will be dependent on the regulatory environment.

St. Johns Prairie trail impact

Mike presented on the impacts of the future St. Johns Prairie trail that is slated to traverse through the former landfill. Concerns from a landfill perspective include:

- Vandalism of gas infrastructure.
- Camping and enforcement.
- Visitor exposure to potentially toxic gases.

- Keeping people on the trail.
- Dead end vs. through trail.

It will be necessary to have regular enforcement and have a park ranger presence at all times once the trail opens. The gas wells at the site are very dangerous and could be fatal if someone took the cap off and breathed in deep. There is all sorts of hazardous waste in the landfill since nothing was sorted back then. The first phase of the trail is a dead end to a viewpoint; this makes the landfill management very nervous. The viewpoint is not quite at the top of the hill and it is human nature to want to go off trail and climb up that hill to get a better view. Once a person climbs up there, they will see the other 200 acres of the site and want to explore more. However, that lower viewpoint was selected so as to not have the trail cross over the landfill gas pipeline. There is also the risk of smokers lighting the grasslands on fire since the area is so dry in the summer. Infrastructure issues such as fencing arises: The goal is to avoid fragmentation of the wildlife habitat, so an appropriate fencing solution will need to be found. Further fencing complications arise when you take into account the HDPE liner; the fence should not penetrate the HDPE liner.

There are also many advantages and environmental interpretation opportunities that come along with the St. Johns Prairie trail, including:

- A chance to tell the story of the rich history of the area.
- The abundance of food utilized by Native Americans.
- Why the landfill was sited in St. Johns.
- How this landfill was filled and closed.
- Transformation from a liability to an asset.

Mike wrapped up the conversation by mentioning that the site where the landfill office sits would be a great area for parking and a trailhead. The parcel is currently owned by BES, but there have been very preliminary conversations about whether it would make sense for Metro to own it.Kevin Huniu, a representative from BES, mentioned that the canoe launch there will be removed later this year.

The committee would like to have a field trip in May to see the site.

SMITH AND BYBEE FUND DISCUSSIONS

Jonathan Soll mentioned that he spoke to senior leadership about educator funding and was told that for fiscal year 2020 (FY20) one educator position will continue to be funded through the Smith and Bybee Fund (Fund); approximately $82,000. After FY20, they will consider the committee's recommendations should they suggest terminating the educator funding via the Fund. The potential November 2019 bond might be able to cover capital projects at the site that haven't yet been started. Trail work could potentially be considered a capital project since it is a regional trail. In addition, there is a possibility of packaging the remaining restoration as capital restoration work—but that would be tough lift. Jonathan has been asked to start developing a list of capital project opportunities for the 2019 bond measure and he will make sure that Dan Moeller, Conservation Program Director, sees these projects as opportunities. The committee reviewed the November

meeting summary to refresh their memories on what was decided at the last SBAC meeting regarding this topic—everyone was still on board with the recommendations.

Jonathan Soll will be sending two spreadsheets to the committee:

- Estimated costs of projects currently in progress, plus ongoing weed treatments.
- Estimated costs of projects not currently in progress but identified in the Comprehensive Natural Resource Plan (CNRP) including phase three of forested wetland, phase three of emergent wetland, and phase four of the prairie.

Everyone on the committee should review and analyze these documents to come up with a resolution detailing how much money should be left in the Fund, including the rationale behind the dollar amount. Troy Clark is a proponent of having money left over in the Fund so that there is money in the bank before a new CNRP begins.

CONSERVATION PROJECT UPDATES

- Interplanting on the fill material—good management for habitat
- Starting to accumulate seed for planting out phase three of the prairie. This will be a two- or even three-year project because some seed isn't produced fast enough.
- Jonathan is still working on the budget; will have a report in March. All of the restoration is going to be 50/50 funded (levy/fund).
- Metro Science program is down 1.4 FTE (full-time employee)
- Columbia Slough Watershed Council are conducting some stewardship planting (bare roots, herbaceous plants, etc.) with Metro along the roadway where the picnic tables are

OTHER UPDATES

- Committee member Sara Henderson will be stepping down as the representative for the St. Johns Neighborhood Association due to moving out of the area.
- Harsch Investments wrote a letter to Troy Clark regarding the Wapato facility. The short letter says that the company has been in contact with nonprofits to see if the site could be utilized for some type of social service program. They will be getting a proposal in February and depending on that proposal they will have a better idea as to the outcome of the Wapato facility.

GOALS FOR NEXT MEETING AND WRAP-UP

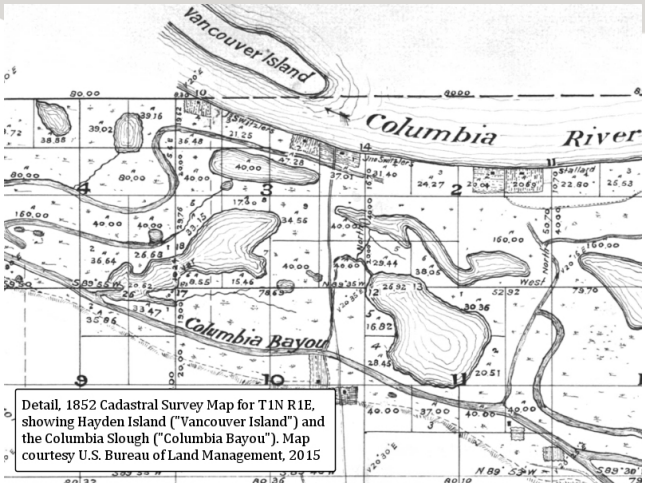
- Jonathan to send out the two spreadsheets mentioned above.
- Committee to review aforementioned spreadsheets and come prepared to discuss recommendations and rationale behind numbers at the March meeting.
- Start thinking about what a site visit in May 2019 would entail.
- Annie to follow up with Metro operations staff to figure out what happened to the art poles that were adjacent to the Smith and Bybee parking lot.

Meeting adjourned at 7:25 p.m.

St Johns Landfill Past & Future

January 29, 2019

1850's



Detail, 1852 Cadastral Survey Map for T1N R1E, showing Hayden Island ("Vancouver Island") and the Columbia Slough ("Columbia Bayou"). Map courtesy U.S. Bureau of Land Management, 2015

1936

1939

1944

1948 – Vanport Flood

1961

1983 – Final Expansion Area

Landfill Closure

Installation of HDPE liner and gas extraction system

Landfill cross-section

- Topsoil ~1’
- Sand ~1’
- Liner
- Clay
- Refuse, up to 70’

Temporary Flare

The original flare was an open flare design similar to this one at the Deschutes County Landfill

Landfill gas flare system

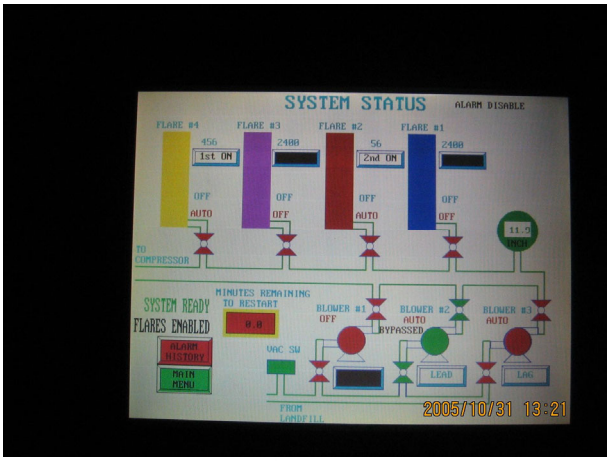
The temporary system was replaced by 4 flares designed for 1,000 CFM each

Landfill Gas Well

There are roughly 180 well penetrations through the liner

Original User Interface

Touch screen system provided some control, but capabilities were limited.



Ash Grove Cement Company

Compressor station went online in 1999.

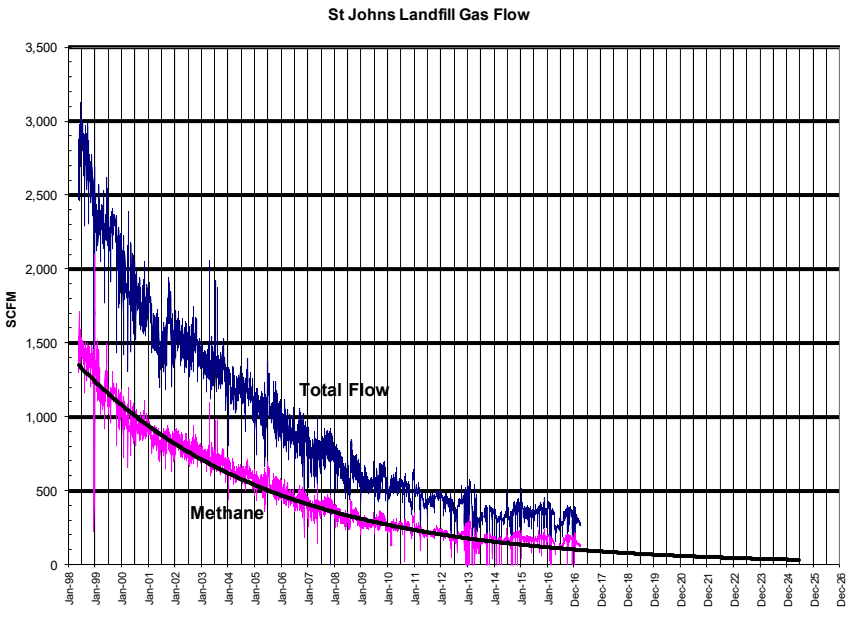
Liner Repair

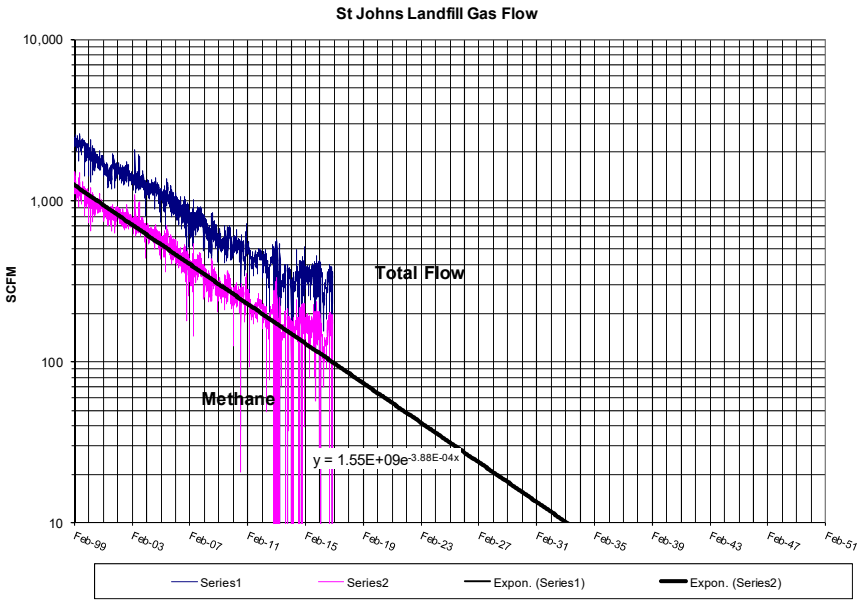
Settlement over time can cause the liner to tear, multiple complications can result:

1. Rain infiltration
2. Methane escape
3. Oxygen intrusion

Liner Repair

Repair following
a subsurface fire



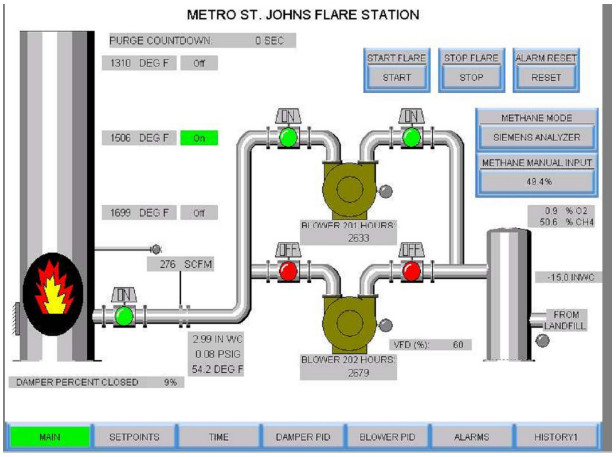


Flare Replacement

Old flares were oversized and losing functionality

New User Interface

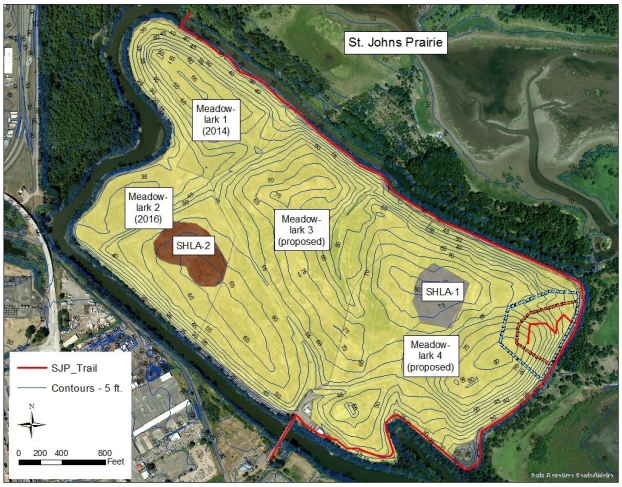
Much more control over the operation, and vastly improved data collection



What's Next?

- Current flare can operate down to ~50 CFM, est. 10-15 years
- Then can go to partial day ops, ~5-10 more years
- Possible transition to biofilter
- Regulatory environment?
- Other near term work

Part II: Trail Impacts

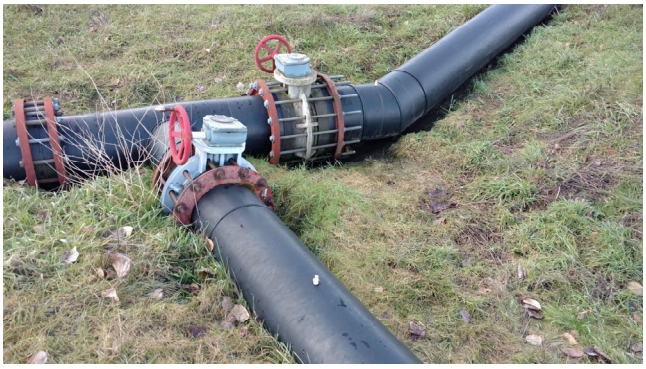


Concerns From Landfill Perspective

- Vandalism of gas infrastructure
- Camping and enforcement
- Visitor exposure to potentially toxic gases
- Keeping people on the trail
- Dead end vs. through trail

Pump Stations

Valves, pipelines, and wells



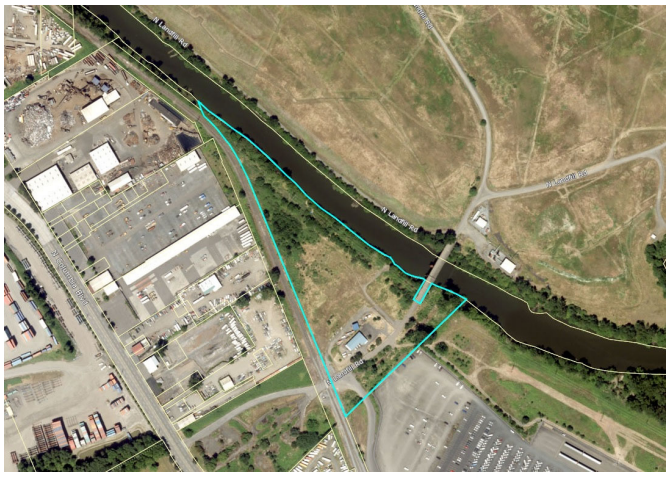
Grass Fire

Impacts to Wildlife

Opportunities

- A chance to tell the story of the rich history of the area
- The abundance of food utilized by Native Americans
- Why the Landfill was sited in SJ
- How this LF was filled and closed
- Transformation from a liability to asset

Trailhead?




oregonmetro.gov
PORTLAND