

1. **Agenda for 3-21-2017**

Documents:

Agenda for 3-21-2017.pdf

2. **CAD Cell Update 032117**

Documents:

CAD Cell Update 032117.pdf

3. **CSO Update 3/21/17**

Documents:

CSO Update 3 21 2017.pdf

4. **Sustainability and Transportation Portland Bike Share 32117**

Documents:

Sustainability and Transportation Portland Bike Share 32117 .pdf

CITY OF PORTLAND, MAINE
Standing Committee Sustainability and Transportation
Councilor Spencer Thibodeau (D2), Chair
Councilor Belinda Ray (D1)
Councilor Jill Duson (A/L)

Agenda
March 21, 2017
5:30 PM
Room 24 (basement level)

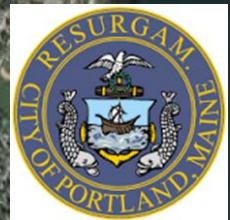
1. Review and approve minutes from February 28, 2016
2. Public comment on the City's Municipal Climate Action Plan (2008)
3. Progress report and update regarding the City's CSO program
4. Report on the CAD Cell for disposal of dredging material from piers
5. Discussion of time limited parking and other parking related issues
6. Presentation by the Bike/Ped Committee regarding a bike share program
7. Other business
8. Adjourn

Portland Harbor Brownfields Dredge and CAD Cell Projects

Portland Sustainability and Transportation Committee
Meeting
March 21, 2017



CAMPBELL
ENVIRONMENTAL GROUP



Presentation

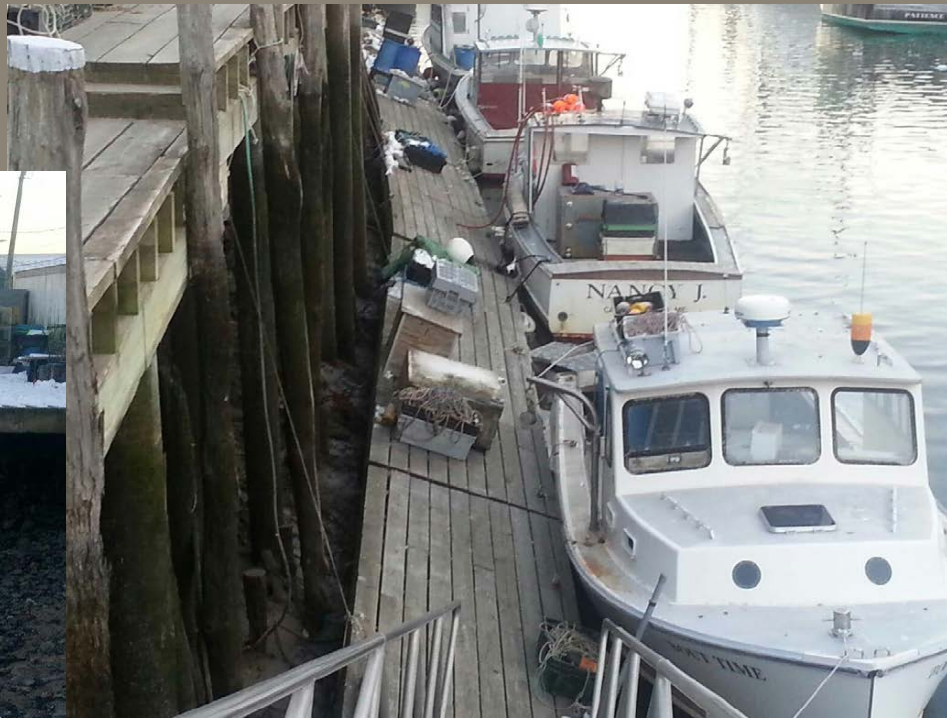
1. Introduction
2. Dredge Overview
4. CAD Cell Overview
5. Project Updates
6. Field Survey Program
7. Permitting
8. Schedule
9. Q&A



Areas considered for Dredging



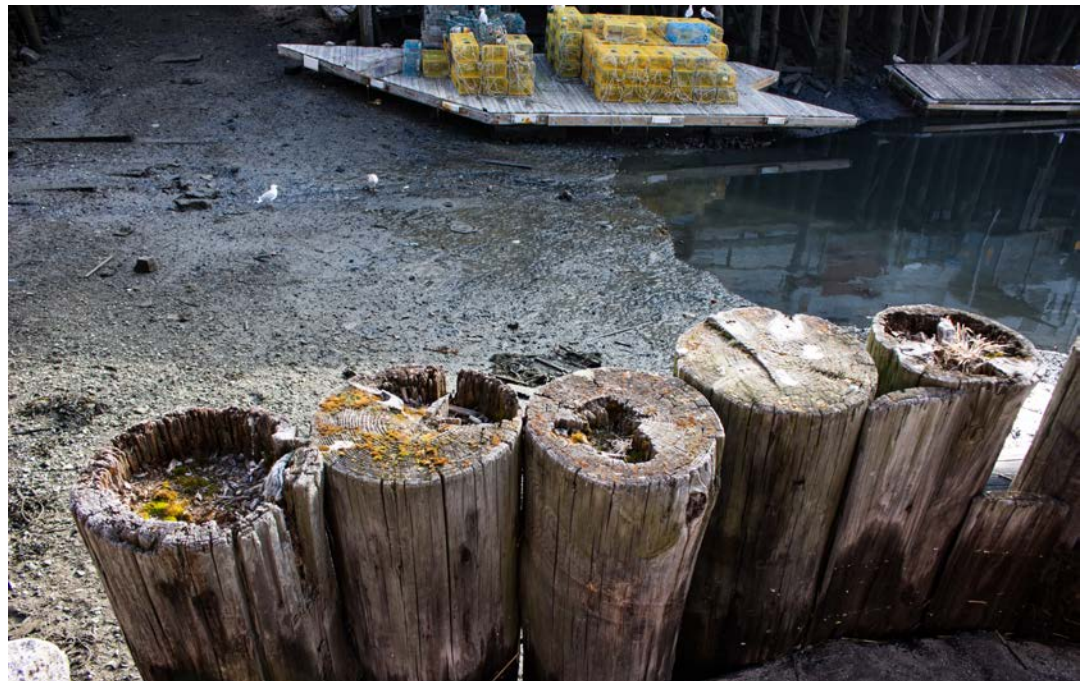
Why Dredge?



- Historic sedimentation has made portions of immediate waterfront unusable
- **Sediments not suitable for offshore disposal**

Dredge Process

- Started with Informal process
- Pier owner engagement and participation
- Bathymetry Surveys
- Calculation of dredge volumes
- Field investigations Fall 2016/Spring 2017



CAD Cell Overview

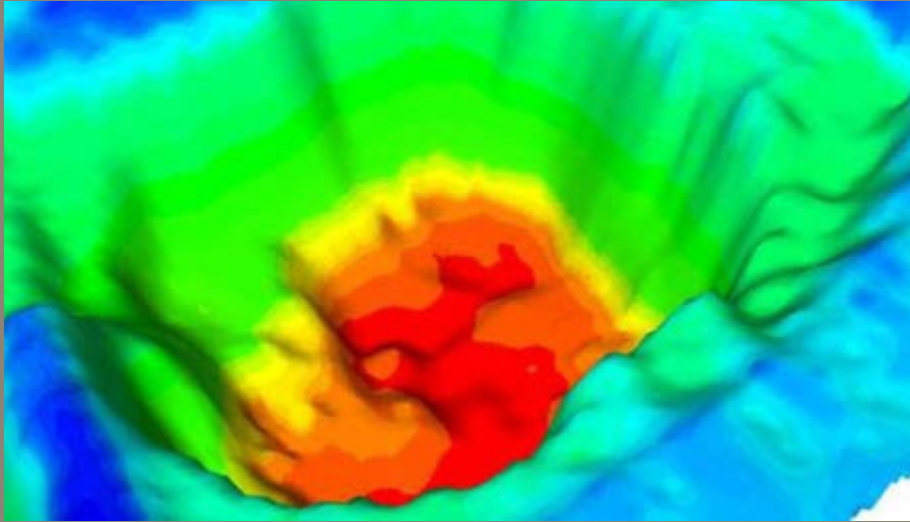


Why a CAD Cell?

- In 2008 Normandeau completed Alternatives Analysis
- Additional alternatives evaluated as part of 1998 and 2013 Environmental Assessments for Portland Harbor Dredge

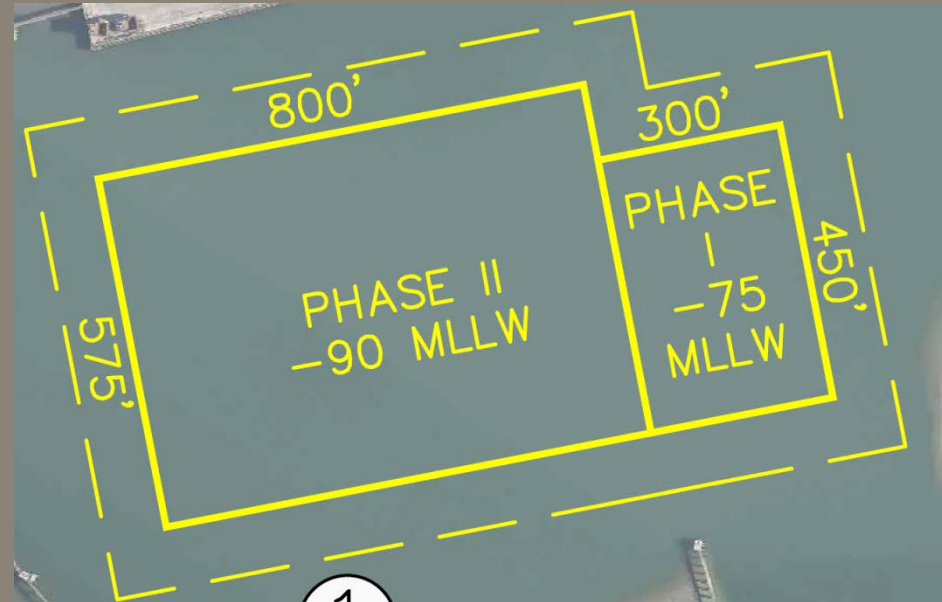
CONTAMINATED MUD	Benefits	Limitations	Regulatory Complexity	Cost: Upfront	Cost: Disposal
Ocean	Disposal costs cheapest, if suitable	Expensive testing with uncertain outcome	Complex, requires biological testing, federal/state permits	High	\$15-250/cy
Upland (beneficial use)	May not be feasible depending on degree of contamination	Requires dewatering and disposal sites; may require mixing to meet standards	Moderate, 2 state permits needed	Moderate	\$73-\$162/cy
Upland (landfill)	Certain outcome	Requires dewatering and disposal sites	Corps/NRPA for dredging; none for disposal landfill testing;	Low	\$123-184/cy
CAD Cell	Testing expense, none to moderate; no dewatering	Funding needed for feasibility study, permitting, creation	Corps/NRPA for dredging, Corps for disposal	Lengthy expensive process to permit new site	\$35-\$48/cy

CAD Cell Fundamentals



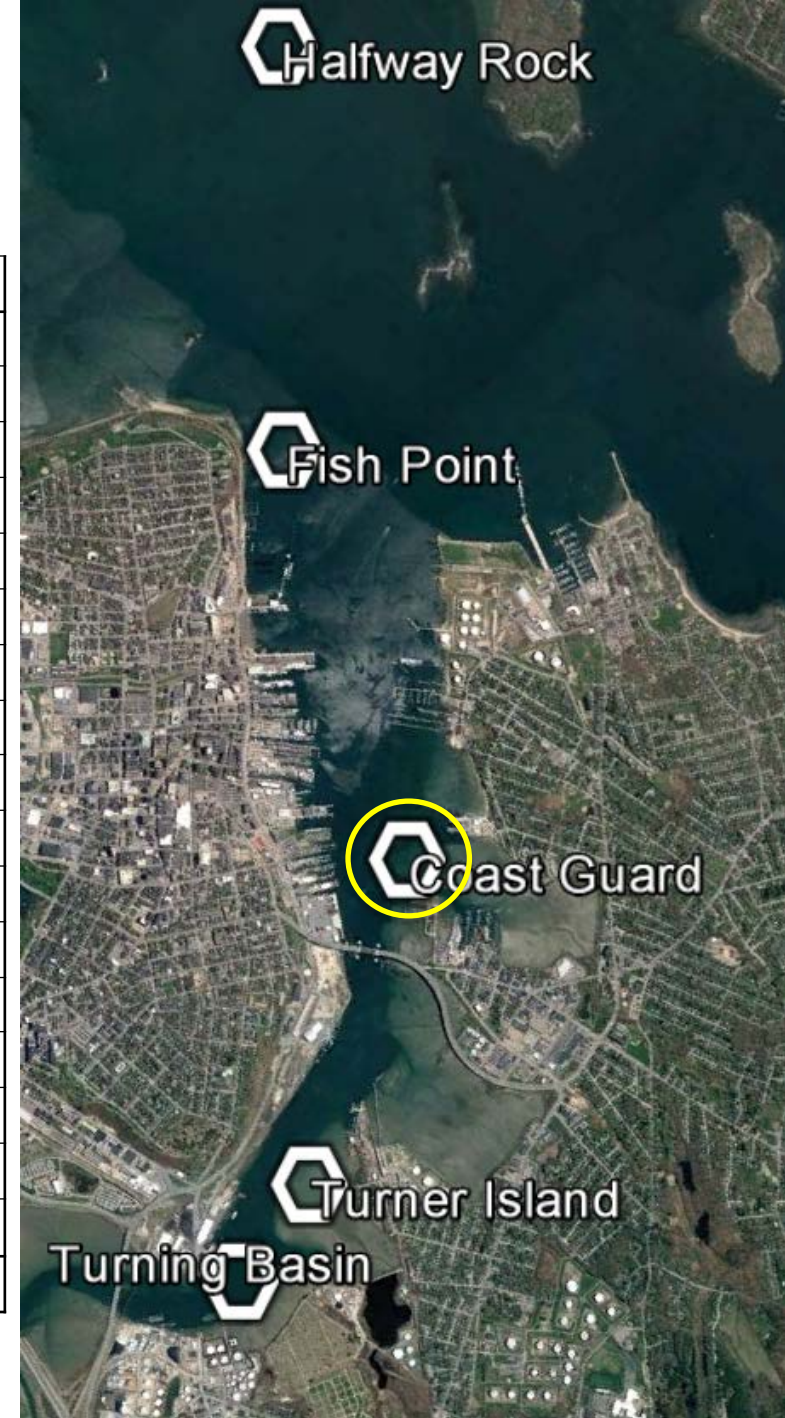
CONCEPT

- Between 300,000 and 400,000 CY
- 2 Phase design
- 4 - 1 Slope in sides
- ~ 50' deep below current bottom
- 3 foot cap design



CAD Matrix

Criteria
Technical considerations (Average)
1. Technical feasibility (CAD construction)
2. CAD Construction Cost
3. Area available for CAD (square footage)
4. Operational efficiency (during use of the CAD)
5. Influences on cap integrity
6. Land title
Environmental/Habitat/Fisheries (Average)
7. Mapped shellfish beds
8. Water Quality (MEDEP rating)
9. Tidal Wading Bird Waterfowl Habitat
10. Lobster fishery (greater the effort the lower the score)
Permitting/Public Feedback/Public Uses (Average)
11. State and Federal Agency feedback
12. Public uses (proximity to residential/recreational uses)
13. Public feedback
14. Navigational impacts (Federal Channel, moorage...)
Scoring



	Overall Rank	Scoring average
Coast Guard	1	8.83
Fish Point	2	8.06
Turning Basin/ Nav channel	3	7.15
Halfway Rock	4	7.14
Turner Island	5	6.14



Legend

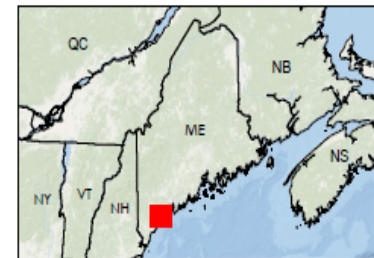
-  Potential CAD Cell Site
-  MEDMR Blue Mussel Shellfish Area
-  MEDMR Softshell Clam Shellfish Area
-  MDIFW Tidal Waterfowl/Wading Bird Habitat
-  MEDEP Coastal Water Classification
-  SB (middle level of water quality)
-  SC (lowest level of seawater quality)

DRAFT



Notes

1. Coordinate System: NAD 1983 UTM Zone 19N FT
2. Shellfish Areas, Tidal Waterfowl/Wading Bird Habitat, and Coastal Water Classification provided by their identified agencies and downloaded from Maine GIS Online Catalog.
3. Aerial Imagery provided by ArcGIS World Imagery web mapping service.



Project Location
Portland Harbor
Portland, Maine

195601208
Prepared by GAC on 2016-11-29
Technical Review by MPJ on 2016-11-29

Title
Potential CAD Cell Sites
Portland Harbor

Project Updates



Dredge and CAD Field Survey Program

Sediment Sampling

Bulk chemistry analysis for dredge areas

3-metal testing for CAD cell

Geophysical surveys

Sub-bottom profiling (CAD only)

Bathymetry

Side Scan-Magnetometer

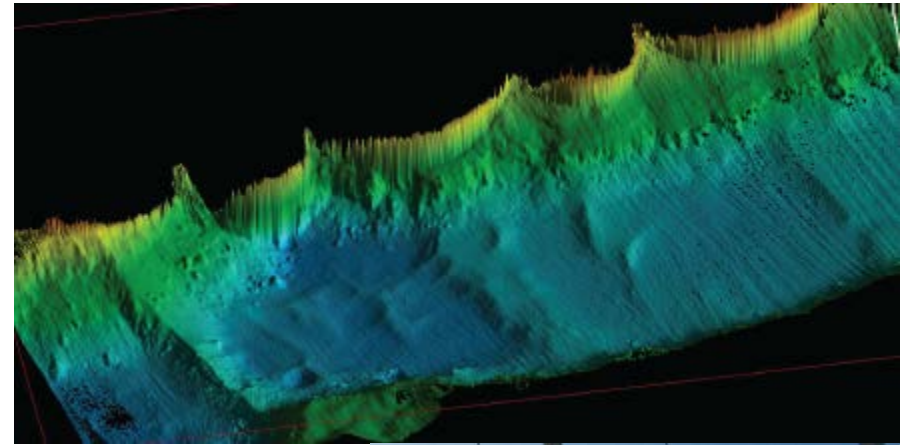
Ecological Characterization

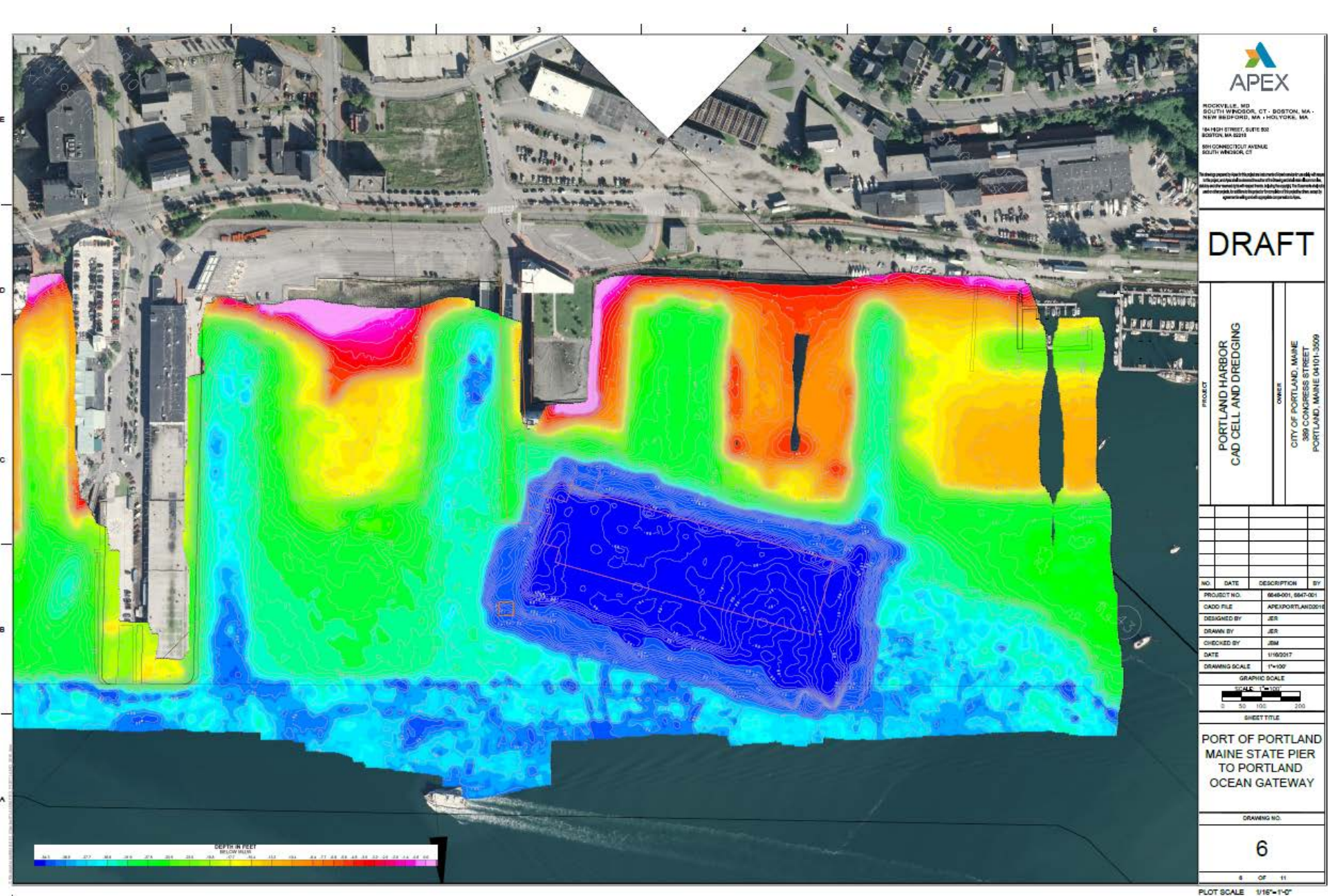
Desktop analysis of existing data for Eelgrass, Shellfish, Lobsters, Wading Birds and Waterfowl and Essential fish habitat depending on dredge sites and CAD location

Determine data gaps and coordinate with agencies on the need for additional surveys

Archaeological Survey

Archaeological resources will be delineated during Side Scan, multi-beam and sub-bottom profiling.





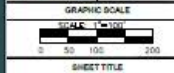
ROCKVILLE, MD
SOUTH WINDSOR, CT • BOSTON, MA
NEW BRIDFORD, MA • HOLYOKE, MA
184 HIGH STREET, SUITE 302
BOSTON, MA 02118
801 CONNECTICUT AVENUE
SOUTH WINDSOR, CT

DRAFT

PROJECT
PORTLAND HARBOR
CAD CELL AND DREDGING

OWNER
CITY OF PORTLAND, MAINE
580 CONGRESS STREET
PORTLAND, MAINE 04101-3509

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	8848-001, 8847-001		
CADD FILE	APEX/PORTLAND2016		
DESIGNED BY	JER		
DRAWN BY	JER		
CHECKED BY	JRM		
DATE	11/16/2017		
DRAWING SCALE	1"=100'		



SHEET TITLE
PORT OF PORTLAND MAINE
STATE PIER
TO PORTLAND
OCEAN GATEWAY

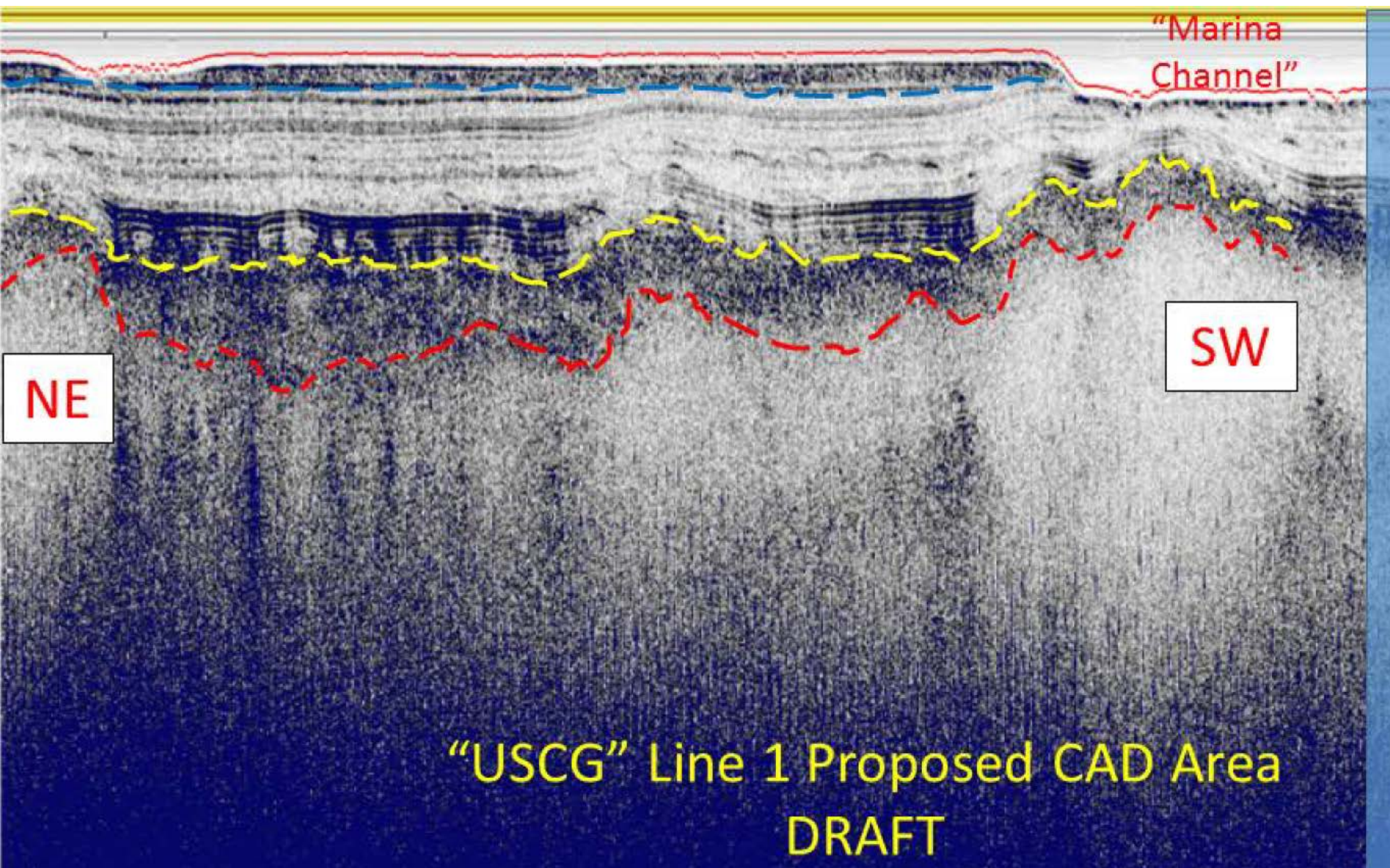
DRAWING NO.
6

6 OF 11

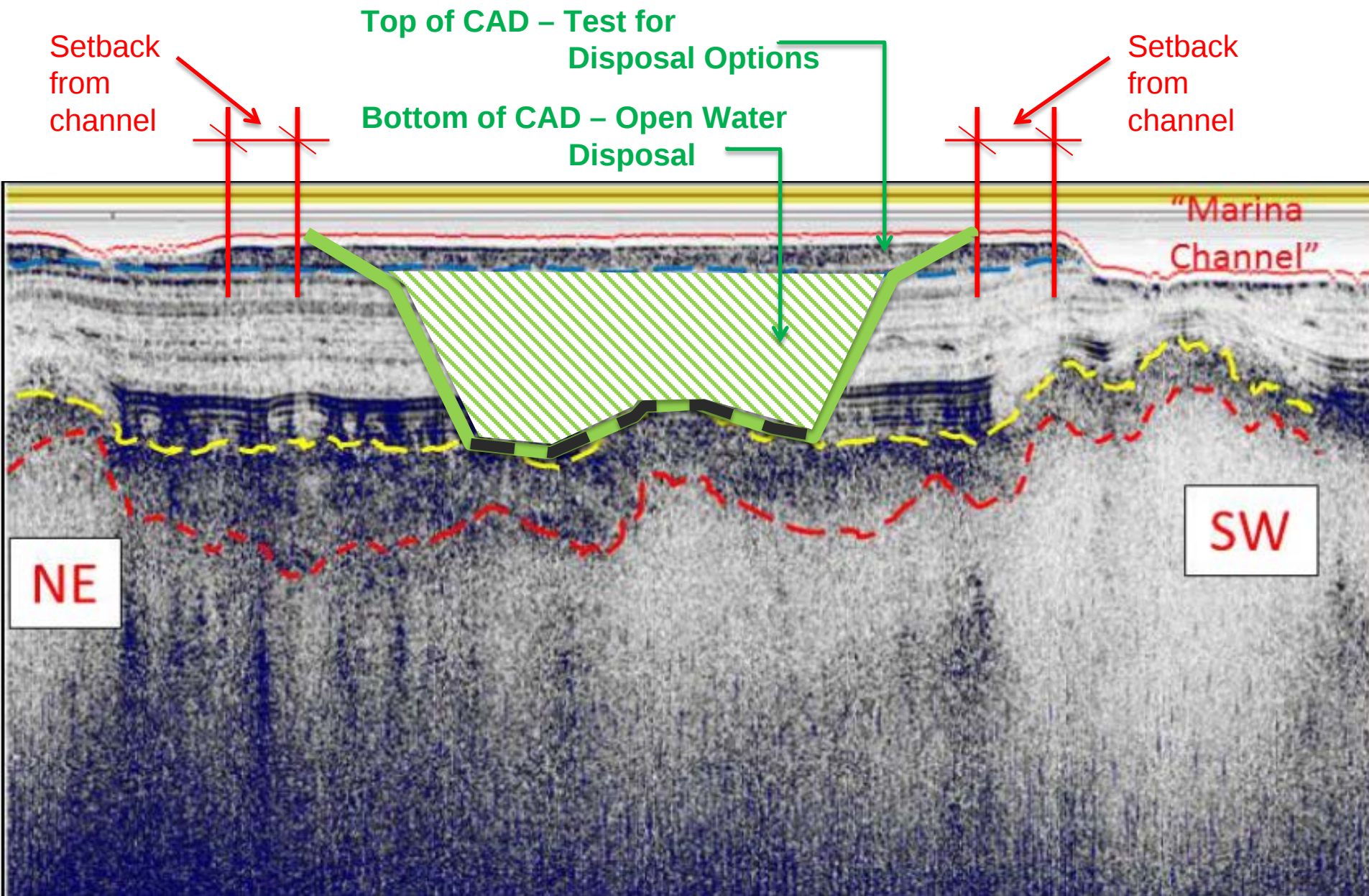
“Bathymetry” Mapped Water Depth



Coast Guard Site – Sub-bottom Profiling Transects

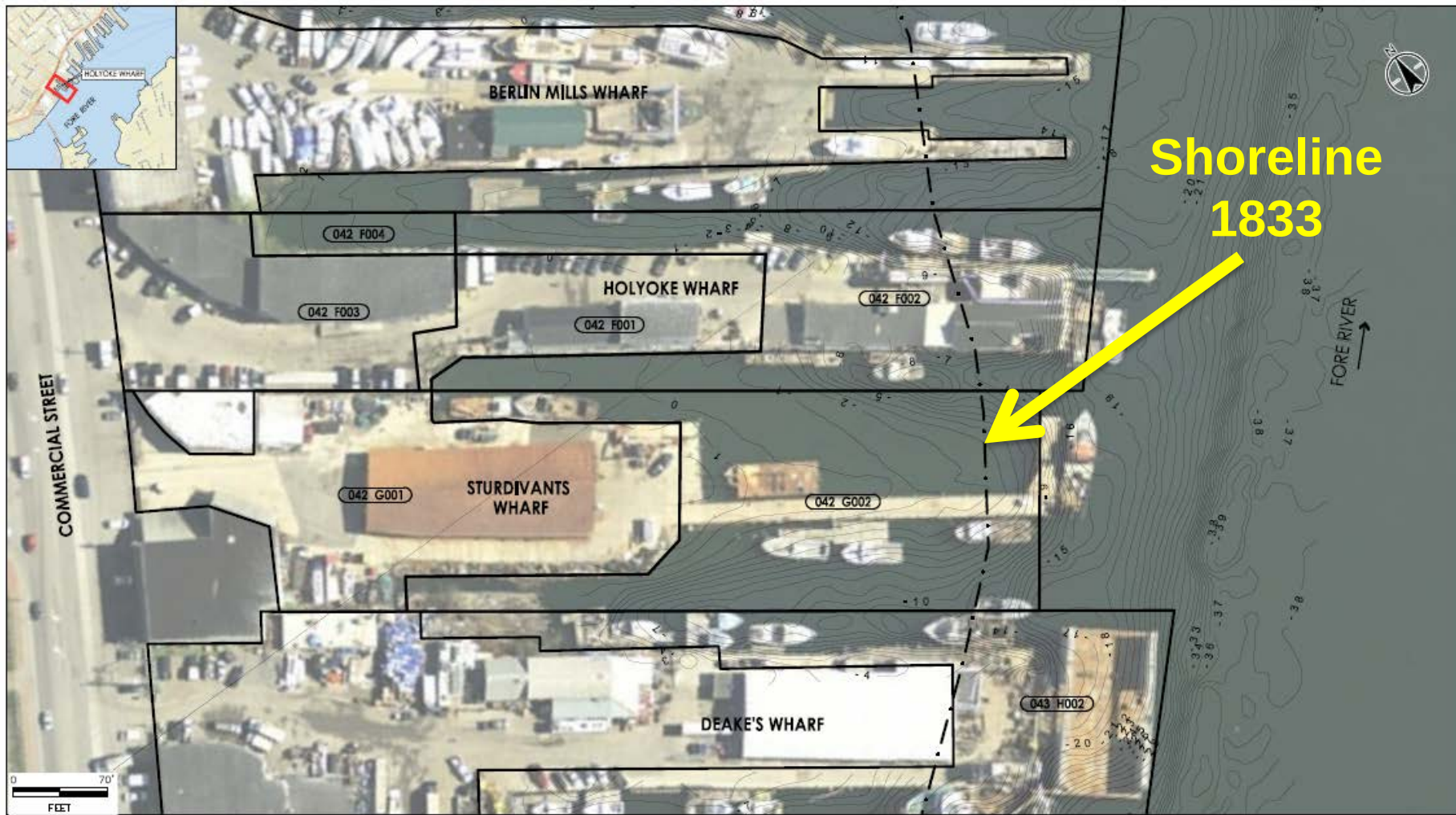


Results to be confirmed through with boring and test piles



Schematic CAD Cross Section

Not to Scale



30 Park Drive
Topsham ME USA 04086
Tel. (207) 729-1199

Revised: 10/10/2011 10:00 AM, 10/10/2011 10:00 AM, 10/10/2011 10:00 AM, 10/10/2011 10:00 AM

CAD Volume? Pier Mapping and Pier Owner Outreach

Client/Project
Portland Harbor Dredge
Portland and S. Portland, Maine

Figure No.
Title
Holyoke Wharf
Sturdivants Wharf

March, 2017

195401199

State and Federal Permitting

Local:

Portland Harbor Commission

Maine:

Natural Resources Protection Act

Submerged Lands Lease

Federal (USACE):

Section 10 of the Rivers and Harbors Act

Section 404 of the Clean Water Act

Section 103 Ocean Disposal of Dredged Material

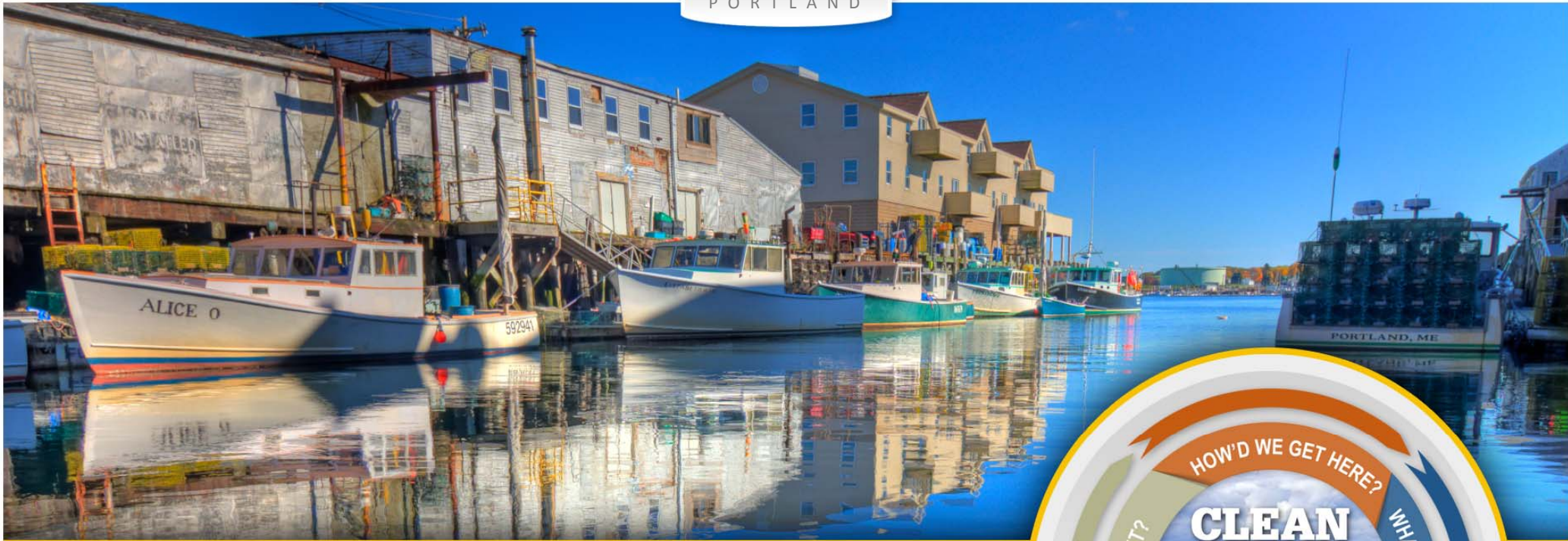
Proposed Schedule

- Draft sampling and analysis plan (SAP)- Winter 2016/2017
- Field investigations Fall 2016/Spring 2017
- Pier Owner Outreach – Winter 2017
- Alternatives analysis – Winter 2017
- MEDEP NRPA and USACE Permitting Spring/Summer 2017

Questions and Discussion



P O R T L A N D



Transportation and Sustainability CSO Update



Objective

- Back Cove South Conduit (BCSC) Status
- Back Cove West Conduit (BCWC) Status
- CSO Separation Projects- 2017 Construction Season
- Stakeholder Group Update
- Integrated Plan with CSO Long Term Control Plan Update, and Post Construction Monitoring Program

CSO Update

- **BCSC - Status**
 - **Design is currently at 90%**
 - **Revised cost estimate - 32M**
 - **Decision was made to perform a Business Case Evaluation (BCE)**

CSO Update

- **BCE or Cost Benefit Analysis is underway**
- **Some form of storage will be considered in Back Cove South when the BCE is complete; 3-4 months**
- **Objective: lower cost, less interruption to commerce and shorter construction time.**

CSO Update

- **Back Cove West:**
 - **Sewer Separation and Green Infrastructure will allow for a smaller storage or no storage.**

CSO Update

- 017 Construction Projects
 - Moody- Wilson Storm Drain
 - Woodford Street Sewer Separation
 - Woodford's Corner Sewer Separation

CSO Update

- Marginal-Forest-State Sewer Separation
- Deering Oaks Parking Lot Green Infrastructure
- Madison-Walnut-Washington Sewer Separation
- Brighton – Rowe Storm Drain

CSO Update

- 018 Design
 - Bedford Street: Brighton Ave to Forest Ave
 - Warren Ave: Storm Drain Extension
 - Forest Ave Storm Drain at Avalon Rd
 - Dartmouth Back Cove to Forest sewer separation
 - Macworth Ocean and Walton sewer separation

CSO Update

- **Stakeholder Group Update**
 - **EPA and DEP are on board with changes...we will be late on the construction schedule.**
 - **FOCB and CBEP have been involved in all discussions since the beginning**
 - **Quarterly Stakeholder meetings are scheduled for 2017 and well attended**

CSO Update

- Integrated Plan
 - CIP - 2.4 M over 3 years
 - EPA Format established in 2012
 - Could extend our schedule out over 25-30 years
 - Stakeholder participation
 - FULL CIP prioritization/Plan (EEWWTP)

P O R T L A N D

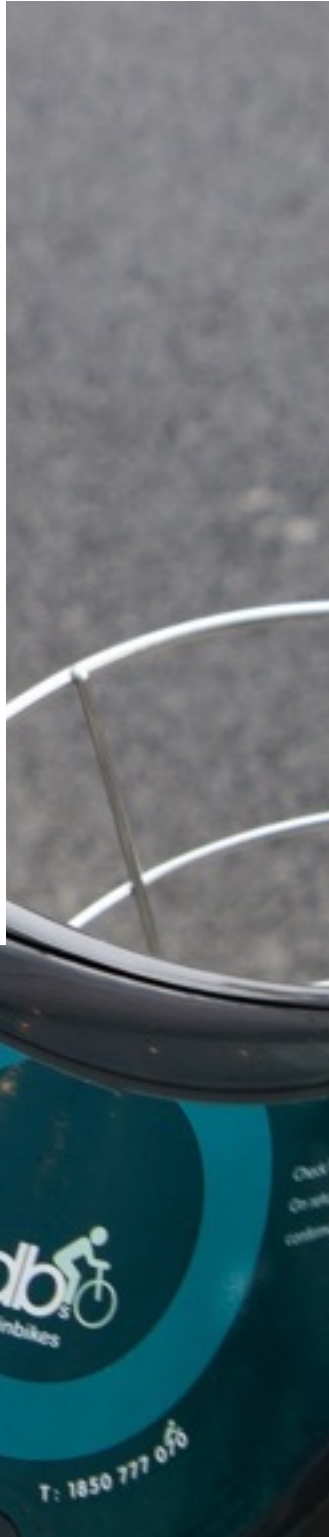


Thank You!





LET'S MAKE IT HAPPEN!





INTRODUCTION

WHAT IS BIKE SHARE?



WHAT IS BIKE SHARE?



Bike Sharing is an innovative, sustainable, healthy public transportation option designed for short distance trips. Users pick up a bike at any self service location and return the bike to any location within the system.



“Bike Share would bring us up to speed with other progressive cities as well as provide a feasible alternative for getting around Portland without having to drive everywhere.” - Portland Resident

PORTLAND HAS PROBLEMS

And they're getting worse



Congested
roadways and
severe parking
problems



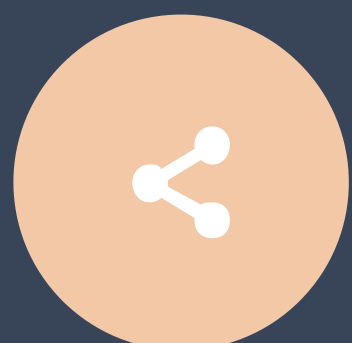
Pollution



Physical activity
continues to
decline



People avoid going
downtown due to
parking problems,
discouraging and
limiting patrons for
many of the local
businesses



Incomplete public
transportation
option disconnect
many Portlanders
from opportunity

BIKE SHARE IS PART OF THE SOLUTION

WHY LIKE BIKE SHARE?



Traffic Reduction

Reduces traffic congestion and parking problems in high density areas



Environmentally Friendly

.82 fewer lbs of CO2 enter the atmosphere for every mile cycled rather than driven



Healthy

People who cycle for 30 minutes, 5X a week take half as many sick days. Cycling for 3 hours/wk can reduce risk of heart disease by 50%



Economic Development

Creates jobs and generates economic activity. 66% of bike share riders use bike share to go somewhere where they will spend money. Stations stimulate economic activity.



Streets For All

Makes roads safer for all users, offers a reliable and affordable transportation option, and helps encourage the use of public space.

WHAT PORTLAND IS SAYING

“Bike Share would promote active transportation and hopefully reduce the use of vehicles for short trips.” - Portland Resident

“I think a bike share would be an added incentive to tourists who want to experience the city outside of a car or bus. It would promote people seeing more than just Commercial street, they could travel from the East End to the West End and shop/eat along the way. I think it would alleviate some of the parking issues we have downtown, too for the residents of the city.” - Portland Resident

“I think Bike Share would be an excellent option. If available, I would use it to commute in from South Portland.” - South Portland Resident

*Quotes taken from Healthy Portland Community Interest Survey

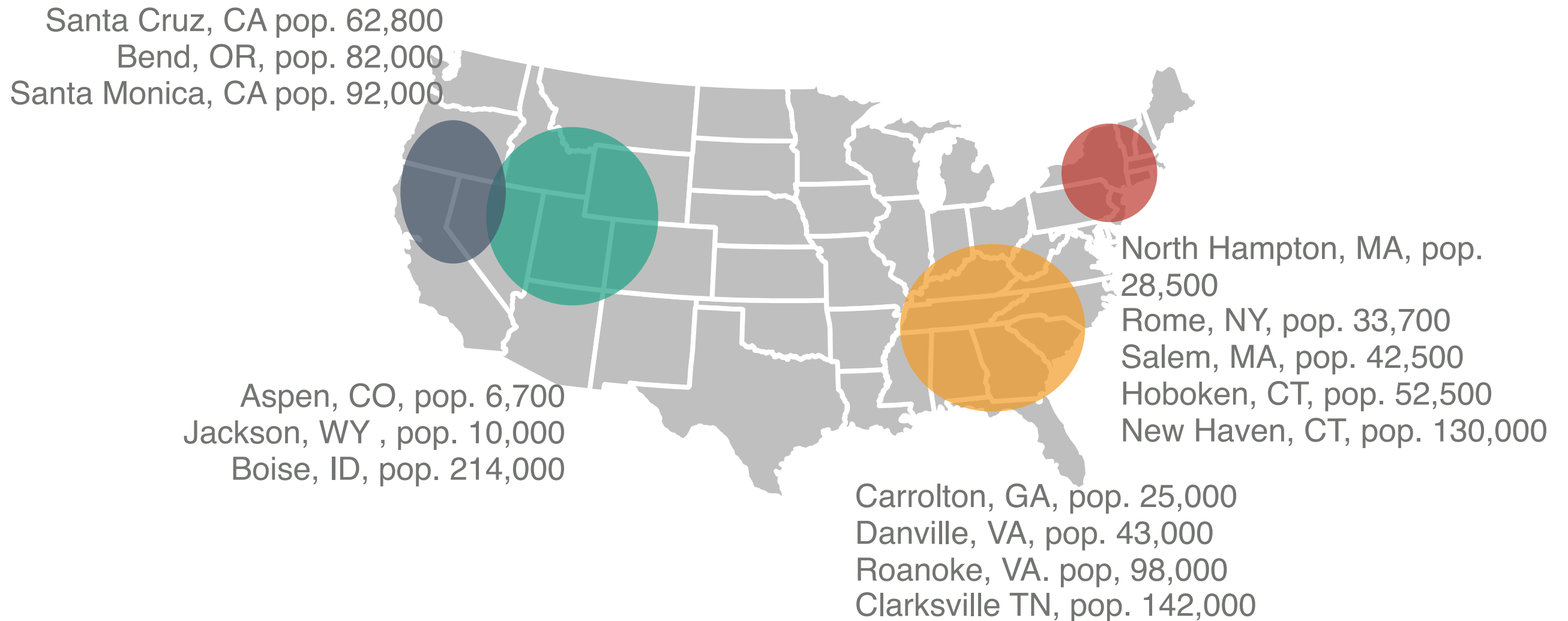


NORTH AMERICAN CITIES WITH BIKE SHARE

Bike Sharing is constantly growing throughout the US and the World. There are currently 104 US cities with bike share and 121 cities in North America.



NOT JUST FOR BIG CITIES



28 million bike share trips were taken in 2016, on par with the entire ridership of the Amtrak system, and a 25% ridership increase over 2015.

WHO USES BIKE SHARE?

Here in Portland, we are committed to bike share equity.

Downtown Professional



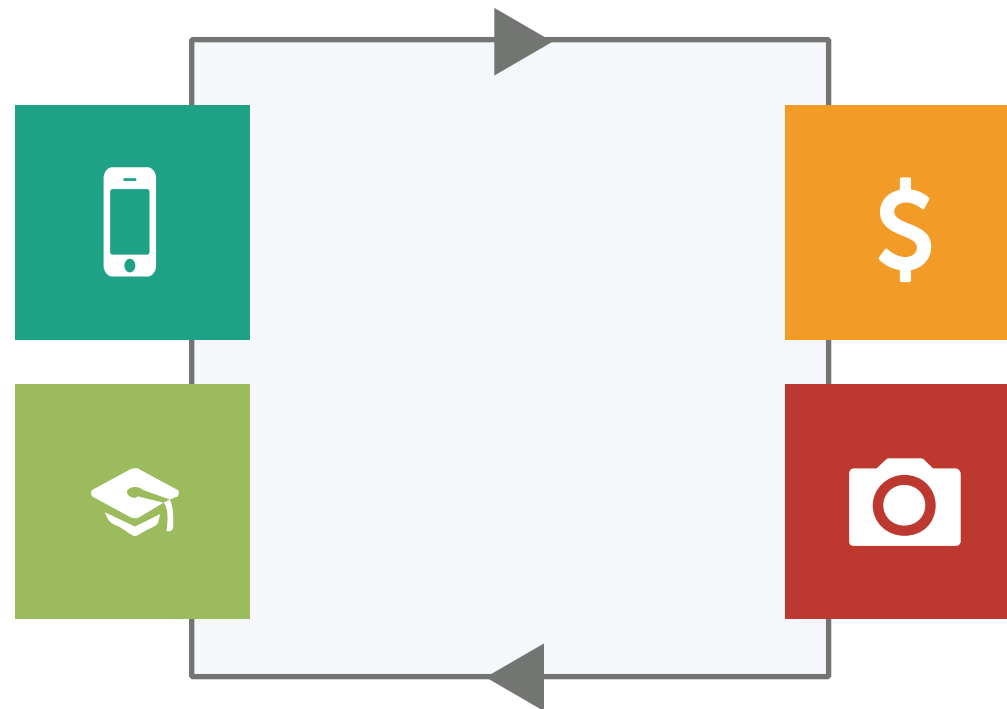
College Student



Low Income Resident



Tourist



50%   50%

The gender ratio of bike share riders is typically better than the overall national split of 30/70 female to male riders, and sometimes as good as a 50/50 split, depending on the city.

EQUITY PROGRAM OPTIONS



SUBSIDIZED
MEMBERSHIPS



PARTER PASSES
THROUGH
HOUSING OR
SERVICE
ORGANIZATIONS



FREE HELMETS

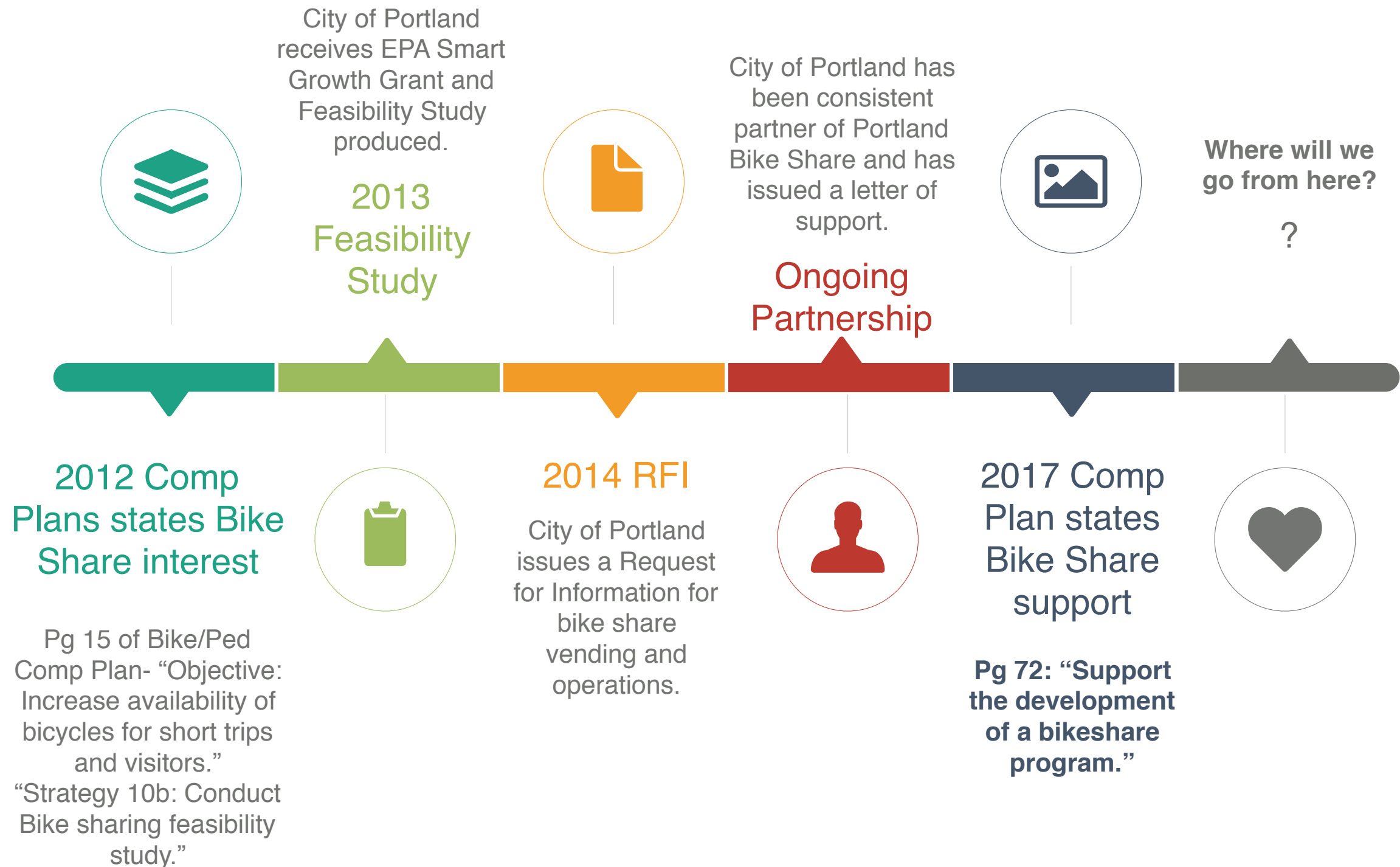


BUS + BIKE PASS



CASH-BASED
PAYMENTS

Bike Share and City of Portland





ABOUT PORTLAND BIKE SHARE

WHO IS PORTLAND BIKE SHARE?

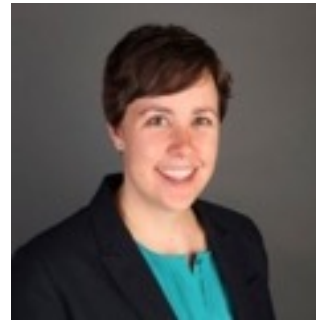


Board and Advisors

Board



Samantha Herr



Sarah Guerette



Laurie Palagyi



Brian Chick

Advisors

Jeff Levine,
City of Portland



Greg Jordan, METRO



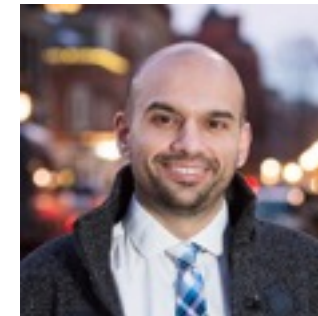
Julie Rosenbach,
City of South Portland



Tyler Kidder,
GrowSmart Maine



Joey Brunelle,
Portland Democrats



Carl Eppich, PACTS



Nicole Anderson,
Opportunity Alliance,
Portland Bicycle Commuters



Andy Jones, Toxics
Action Center,
Slow Ride



Bruce Hyman,
City of Portland



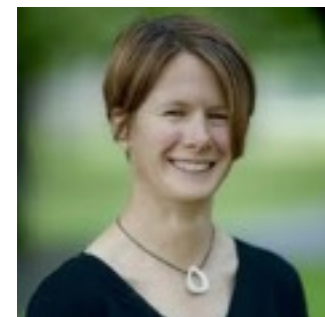
Sarah Cushman,
Cushman
Transportation Consulting



Ainsley Judge,
Gear Hub



Kara Wooldrik,
Portland Trails



PORTLAND RESIDENTS

“Bike Share would make some errands much easier than using a car due to parking. Also, if friends or family were in town, we could use the bike share to get around the city without having to drive. Riding a bike is a fun way to experience a city.”

“It seems like something that would be very popular in Portland, leading to more people using a bike for short trips rather than driving. That leads to cleaner air for everyone. Also, I can see the potential for social bike trips to become more popular.”

<http://thehubway.com>





LAUNCH STRATEGY

BIKES ON THE GROUND!



BIKES ON THE GROUND

GOALS

50 Bikes

Year 1



100 Bikes

Year 2



200 Bikes

Year 3



300 Bikes

Year 4



400 Bikes

Year 5



YEAR 1 LAUNCH STRATEGY

Portland Bike Share seeks long-term partnerships.

4+ High Visibility Stations- E.g. Monument Square, East Bay Side, Waterfront, West End



BIKE SHARE PROJECTIONS

BY YEAR 3



- 200 Bikes
- 300 Dock Points
- 30 Stations
- 3 Kiosks
- All Over Greater Portland

Ridership



1k

1,000 Annual Monthly Members



5k

5,000 Casual Day Users



6k

6,000 Riders

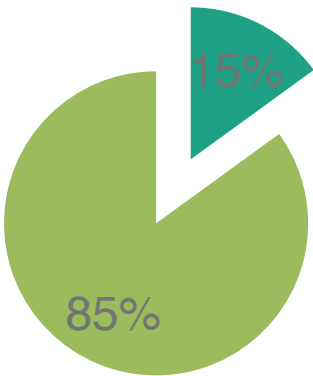
3 YEAR FINANCIAL PROJECTIONS

YR 1	YR 2	YR 3
CAPITAL \$214,000	CAPITAL \$203,000	CAPITAL \$316,000
OPERATIONS \$171,000	OPERATIONS \$336,000	OPERATIONS \$441,000
TOTAL \$385,000	TOTAL \$489,000	TOTAL \$757,000
PER BIKE ANNUAL OPS RATE \$3430	PER BIKE ANNUAL OPS RATE \$3360	PER BIKE ANNUAL OPS RATE \$2300

1,600,000 by YR 3

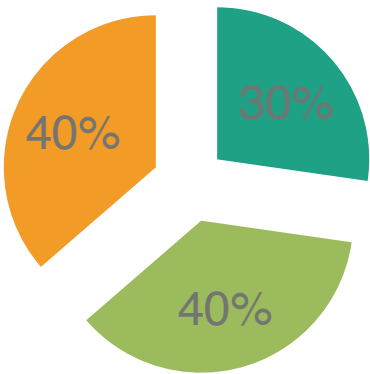
3 YEAR OPERATIONS REVENUE PROJECTIONS

YR 1



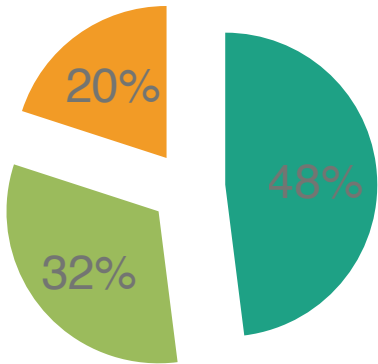
- Ridership
- Partners/Sponsors
- Grants/Donations

YR 2



- Ridership
- Partners/Sponsors
- Grants/Donations

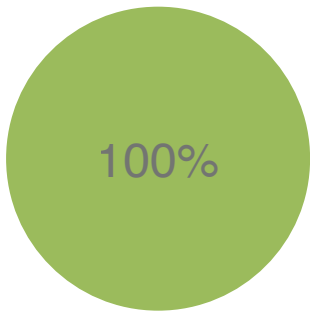
YR 3



- Ridership
- Partners/Sponsors
- Grants/Donations

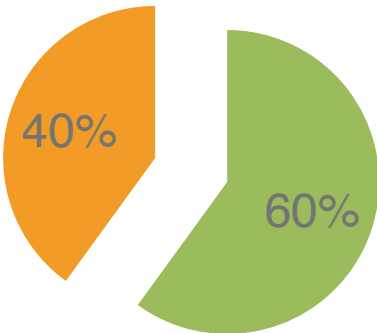
3 YEAR CAPITAL REVENUE PROJECTIONS

YR 1



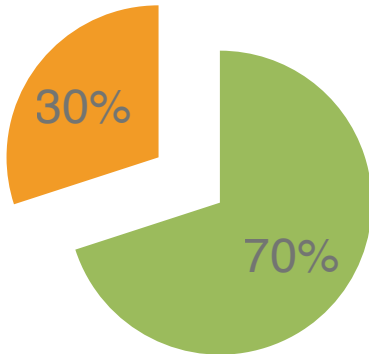
- Ridership
- Partners/Sponsors
- Grants/Donations

YR 2



- Ridership
- Partners/Sponsors
- Grants/Donations

YR 3



- Ridership
- Partners/Sponsors
- Grants/Donations

BE A PORTLAND BIKE SHARE PARTNER
Let's work together to get bikes on the ground!





KEEP IN TOUCH WITH US

PORTLAND BIKE SHARE

For bids or inquiries please contact Samantha Herr



Email

samanthazherr@gmail.com



Mobile Phone

+1 (520) 307 3482