

CITY OF PORTLAND, MAINE
Standing Committee on Sustainability and Transportation
Councilor Belinda Ray (D1), Chair
Councilor Spencer Thibodeau (D2)
Councilor Andrew Zarro (D4)

Agenda
April 21, 2021
5:30 PM

Please click the link below to join the meeting:
<https://zoom.us/j/96402891011>

or Dial:
US: +1 312 626 6799 or +1 646 558 8656 or +1 301 715 8592
Webinar ID: 964 0289 1011

1. Review and approve minutes from March 17
Presenter: Councilor Ray 5 minutes
 - a. Minutes
2. Sustainability Program Updates
Presenter: Troy Moon 10 minutes
 - a. Updates
No public comment taken.
3. Presentation and Discussion
 - a. Public Landing at Ocean Gateway
Presenter: Bill Needelman
15 minutes
Communication -- No public comment will be taken
 - b. Transit Tomorrow
Presenter: Rick Harbison and GPCOG staff
45 minutes
Public comment will be taken

- c. Tree Canopy Update
Presenters: Jeff Tarling and Parks staff
15 minutes
No public comment taken
- d. Review One Climate Future Short Term Actions
Presenter: Troy Moon
15 Minutes
Committee discussion, no public comment
- e. Corporation Counsel analysis/explanation of process for making changes to Green Building Code, Inclusionary Zoning, Solar Roof requirements, etc. given the Green New Deal referendum.
Presenter: Jennifer Thompson
15 minutes
Committee discussion, no public comment
- f. Discuss possible amendments to the Straw Ordinance
Presentation: Troy Moon and Jennifer Thompson
Committee discussion, no public comment
10 minutes

4. Other Business

CITY OF PORTLAND, MAINE
Standing Committee on Sustainability and Transportation
Councilor Belinda Ray (D1), Chair
Councilor Spencer Thibodeau (D2)
Councilor Andrew Zarro (D4)

Draft Minutes March 17, 2021

Members Present: Council Ray, Councilor Thibodeau, Councilor Zarro

Staff Present: Troy Moon, Nell Donaldson, Casey Zorn

Guests: Mayor Snyder, Jesse O'Brien, Bruce Van Note, Jennifer Brickett, Paul Godfrey

Meeting called to order at 5:34 PM.

February Minutes

Councilor Zarro motions to approve the February meeting minutes. Councilor Thibodeau seconds the motion. February minutes passed unanimously, 3-0.

Sustainability Update by Troy Moon

Have been recruiting for Sustainability Associate position and will be announcing decision soon. Recently held meeting with Code Enforcement and on track to adopt IECC 2021 by July 1st. Supporting Maine Department of Environmental Protection (DEP) with their South Portland oil tank investigation. The DEP will be using spraying to neutralize odor smell. City has continued to emphasize need for action on this issue. See-Click-Fixes are an important tool with this project. Have had feedback on Plastic Straw Ordinance such as certain restaurants wanting to use new alternative material bioplastic straws. Drive throughs have also been receiving backlash from customers who do not understand the ordinance. Taking on a couple new Electric Vehicles (EVs) for fleet using local grants and rebates. Will continue to look into opportunities to expand infrastructure. Outreach efforts such as Coffee and Climate have been going well with increasing community engagement. Gave presentations at Westbrook High School and University of Maine Law School. Will be having members of Portland Climate Action Team (PCAT) work as support for benchmarking ordinance. Will be training PCAT members and giving tutorial on benchmarking to building owners in early April.

Committee Comment on Sustainability Update

Councilor Thibodeau has been getting reports of broken poles and issues with other Central Maine Power (CMP) infrastructure. Is there a way to streamline addressing these issues? *Lights on the Eastern and Western Prom related to underground wiring issues, which is part of disagreement with CMP. Will need to go through Public Utilities Commission (PUC) process due to opposing views on this issue. Have expressed to PUC and CMP that these issues need to get resolved soon. For damaged poles which are clearly CMP's responsibility, use See-Click-Fix to report.* Councilor expresses confusion of responsible party with multiple companies on a single pole and need for easier reporting process. *Will work with CMP to ensure these issues are resolved in best way possible.*

Councilor Zarro wonders if the drive through straw issues have been with chain restaurants and wonders how to engage with these larger companies on local ordinances? *Most chains do want to comply, and this often is a case-by-case basis. Will require continued outreach.* Councilor Zarro appreciates the outreach for this ordinance and how accessible Troy has been on this issue.

Councilor Ray believes the Committee should change the wording of the Straw Ordinance so that alternative material straws can be provided without explicit request. Has also had CMP issues in District 1 and believes this issue is greater than simply Portland, and it is clear that CMP is the common factor in similar municipality disputes. Should make reporting on these issues more transparent.

GPCOG Recovery Project Development Fund with Councilor Ray

The problem, as presented by Greater Portland Council of Governments (GPCOG), is that Maine is poorly positioned to compete for likely infrastructure stimulus. We need to make sure that Maine has shovel-ready projects to submit when stimulus comes. GPCOG recommends creation of project development fund, which would help municipalities finish the last bit of project planning to get projects shovel ready and ready to submit for funding, which would be better for competing for stimulus funding. GPCOG is requesting that the State designate \$10 million of general operating revenues to Recovery Project Development Fund in the 2021 budget and \$25 million in new bond revenue when established. The question at hand is whether the S&T Committee and/or Council should support and move forward with this effort.

Committee Discussion on GPCOG Recovery Project Development Fund

Councilor Zarro believes being well-positioned is the bare minimum. Wonders what percentage of the \$10 Million would benefit the City of Portland directly. *Councilor Ray believes this would not be made clear until the projects are submitted through a proposed application process in which each project would be evaluated on the criteria of how well positioned the project is to create new well-paying jobs, preserve existing well-paying jobs, support recovery of the Maine economy, and improve Maine economic resilience. Portland likely has a lot of projects and would have a good chance to receive some of the support.* Councilor Zarro sees no reason not to support this measure.

Councilor Thibodeau wants to confirm what are the “general operating revenues” and “bond revenue.” *“General operating revenues” refers to the Governor’s budget to go to planning and “bond revenue” is future bond revenue. The original intent, as written and submitted in October, was to have the Governor include this in her budget; she did not. There is now funding that could be used for this order; however, that line in the request is now out of date and will need to be updated.* With these amendments, and as long as this request does not affect Portland’s cut of the recovery bill or future transportation funds, Councilor Thibodeau supports the creation of this fund.

Councilor Ray will also need to confirm that this request is now being put before the Legislature for different funding, no longer before the Governor.

Councilor Ray will create a draft letter from the Sustainability Committee. Will run this by Pious and the Legislative Nominating Committee. Will send around to S&T Committee and others for signing and send over to GPCOG for support.

Public Comment was opened; however, there was no public comment.

PMAC Annual Summary Report with Jesse O'Brien and Troy Moon

Introduction by Jesse O'Brien:

Members of the Pesticide Management Advisory Committee include Jesse O'Brien (chair of PMAC, member South Portland LMAC), Avery Yale Kamila (resident, founder of Portland Protectors, chair of Waiver Committee), Carol Lebinesser (NOFA representative, landscaping company owner), Dr. Priscilla Skerry (naturopathic doctor), Tim Lindsay (commercial pesticide applicator), Karen Snyder (citizen), and Troy Moon (city staffer, member of Waiver Committee). Tim's term is up and there will be a vacancy on the PMAC. This past year, PMAC met about 10 times. Discussed pesticides and pending fertilizer ordinance.

Report Summary and Recommendations presented by Troy Moon:

There were twelve See-Click-Fix reports this past year. This is a great tool that residents should continue to use. Most reports were about signage. PMAC will have to do more work on educating applicators on proper signage. Thirty-six companies submitted applicator report, an increase from last year, a sign that outreach has been successful. Nearly all applications were for exempt applications. Have not fully reviewed the product list for non-exempt applications. No way to know how many people are actually applying in Portland and did not submit. PMAC will have to review application form to make reporting format clearer and improve consistency in responses. Outreach was lowered because of Pandemic; however, there were post cards sent to See-Click-Fix properties, a presentation with NOFA, and website updates. Will continue to work to educate applicators on signage. Hope to collaborate more with neighboring communities to create a regional approach to land care. The PMAC recommends that Portland move forward with a fertilizer ordinance similarly to South Portland's Ordinance. Improperly applied fertilizers are hazardous to Casco Bay and stormwater. The PMAC also recommends that the City Council look at the Heritage Tree Ordinance and take this City-wide. The report includes specific recommendations on the fertilizer ordinance and how it should mirror and differ from the South Portland Fertilizer Ordinance. One of the provisions that the PMAC spoke about at length was South Portland's allowance of a certain pesticide allowed for a number of years in their ordinance for grub use without waiver application; there are differing views on this allowance in a Portland ordinance.

Committee Comments on PMAC Annual Summary Report

Councilor Thibodeau appreciates the work of the PMAC. Emphasizes grub issue as the only issue he has personally heard on the Pesticide Ordinance. Would like to try to support PMAC on this issue when opportunity presents itself.

Councilor Zarro has worked with Avery on Back Cove Neighborhood Association and understands the complexity of these issues. Appreciate the work of the PMAC.

Councilor Ray wonders about sod worm waiver request from Chevrus which was ultimately approved by PMAC and withdrawn by Chevus. *Troy does not have explicit updates on this, only heard of initial irrigation measures. Jesse adds that sod web worm and bluegrass billbug were more active last year. The outbreak was not that big at Chevrus, but believes the person taking care of the field is very knowledgeable and Jesse will reach out to them. Jesse voices need for leadership from S&T on how to address grubs.* Councilor Ray voices that this could potentially be discussed as a part of the work plan. LMAC (Landcare Management Advisory Committee), heritage tree inclusion in a larger Landcare Management Ordinance, and oversight by the PMAC/LMAC might be a good expansion.

The Portland Transportation Center (PTC) Potential Relocation

Overview presented by Paul Godfrey of HNTB (the consulting agency)

The PTC is currently located at Thompson's Point and is home to Concord Coachlines and Amtrak. The study objectives were two-fold: (1) the customer and (2) the transportation system, which includes ridership, safe connections, etc. Considered bus and rail collated at existing location with improvements, collated at new locations, and at separate locations. This was a phase study approach, which included 8 alternatives and 3 locations (Thompson's Point, Fore River Parkway, and St. John Street) evaluated at Phase 1 in 2019. Used extensive data gathered by transportation agencies and based evaluation on 34 measures of effectiveness in the following 10 categories: safety, mobility, environmental, efficiency, customer accessibility, economic/community development/future vision, parking, costs, funding, and mission. Phase 1 ended with mixed and inconclusive results. Did identify a need for increased parking given pre-Pandemic 2019 conditions. Key takeaway was to include another location to create more alternatives.

Phase 2, which occurred in 2020 included 5 alternatives over 3 locations (Thompson's Point, Union Station/Congress Street, and along St. John Street). These alternatives all assume that buses would remain at original Thompson's Point location given Concord Coaches' strong desire to remain put. Phase 2 alternatives included:

- (NB) No-Build
- (5) Existing PTC location for bus and rail with improvements
- (6) Existing PTC location for bus, new rail south of PTC with improvements
- (7) Existing PTC location for bus with improvements, new rail on St. John Street
- (8) Existing PTC location for bus with improvements, new rail at Union Station

These alternatives were rated on 4 basic needs: meets basic customer needs, meets transportation needs, cost effectiveness, and could this alternative be supported, implemented, and potentially funded. This rating resulted in an ultimate level of reasonableness ranking between alternatives, with Alternative 8 being ranked as the most reasonable, mainly because

of its ability to meet customer and transportation needs by improving connections to downtown and other modes of transportation and by increasing ridership and decreasing strain on transportation system. Alternatives 5, 6, and 7 ranked closely behind Alternative 8. Developed concepts for layout of a new Union Station train station.

The Consultant short-term recommendations include the following: (1) develop plan for improving existing PTC, (2) continue evaluating Alternative 8, and (3) incorporate short- and long-term actions into local/state/agency master plans. Long-term recommendations include (1) identifying sources and funding for Alternative 8 if detailed evaluation shows cost effectiveness, (2) implement Alternative 8, and (3) identify public entity that own and/or operates the PTC and new rail station(s).

Maine DOT's Proposed Path Forward presented by Bruce Van Note

The DOT took the recommendation for a new train station at Union Station and overlaid other considerations such as property ownership and eminent domain, funding, and balancing interests. Did ultimately decide to have a separation of facilities, which did not come intuitively. Did study the Y-Track, an older proposal, which did not prove effective. Currently in a place of supporting Northern New England Passenger Rail Authority's (NNEPRA) efforts. Guiding principles for NNEPRA include ensuring the following: (1) new rail facility is open to the public, (2) there will be adequate facilities for connecting modes of access, (3) if developed as part of PPP, a relationship with private partner will clearly define responsibility of costs, (4) operating costs for new facility will remain in line with current PTC, (5) there will be support from City of Portland and owners of property. Will be putting together a written agreement with NNEPRA. If a viable option does not come up in the next couple of years, DOT will pick up this project where the study left off. Also take into account that this study was started before the Pandemic, and currently ridership is still down and we are still in the middle of the Pandemic. At a turning point of starting to think about when ridership is back up and transportation planning is reading to continue.

Committee Comment on PTC Potential Relocation

Councilor Zarro would like the S&T Committee to be given a copy of the slides. Wonders if there is a plan to resume projects such as this in the middle of reduced ridership due to the Pandemic. *Van Note does not see this being a problem since they are still in the planning phases. There will, however, be questions about timing if reduced ridership continues and influence of increased remote work.* Saw that public engagement is occurring this month and wonders about how this will look. *This project has not had a lot of public engagement yet. Did send out surveys. Believes the surveys were confusing because of hypotheticals. Separation of transportation is not a first thought and is not obviously best choice; however, it is worthy of consideration because of legitimate conditions in this case. Still having conversations with stake holders.* On the 34 measures of effectiveness, how is accessibility broken down? *Paul will provide link to study on 34 measures to the S&T Committee. A lot goes into each measure. The report is also on the DOT's website.*

Councilor Thibodeau thanks DOT and consultant for all of their work on the project and their presentation.

Councilor Ray understand concerns with eminent domain but is also glad it is not completely off the table since we will need to take bold steps to reach carbon neutrality. We need to make transit more accessible and frequent. Very important discovery of options that may work and those that certainly will not work. Thinks the Union Station site is very exciting because of its history and its opportunity as an economic driver. Does believe there is a rebound in transit ridership even with a METRO increase fare. Appreciates need for pause, but Councilor Ray encourages continued forward movement so that we can figure out how to access funds and begin project so that we can actually make progress. Wonders what the end date is on public comment. *One of the reasons DOT is here, is to promote public comment. Will continue to receive and listen to public comment even as NNEPRA takes on the project. The recipient of public comment might change, but the DOT will continue to assist in managing this.*

Public Comment on PTC Potential Relocation

Patricia Quin, Executive Director of NNEPRA: Thanks department for their leadership on this effort. May not agree with all assumptions. Will continue to move forward with this effort. The backup move that the Amtrak Northeaster currently does adds 1.5 hours to daily schedule. Emphasizes need to fix this problem and streamline the service. Appreciates opportunity to work with this group and move forward with economic progress for this region.

Elizabeth Parsons of 44 Winters St is delighted by this study. Has delt with complicated nature of train system here. Supports effort to expand train access.

S&T Committee Work Plan Priorities

For upcoming April meeting, there will be a Transit Tomorrow presentation by GPCOG and Troy will lead a discussion of One Climate Future potential committee actions.

Councilor Zarro recalls Troy's discussion of One Climate Future plan and wonders about some of the low hanging fruit action items or those that currently have political will, for example municipal composting, and whether this will be further discussed.

Troy discusses clean energy and energy efficiency importance. Brings up opportunity to mandate energy disclosure for properties in Portland. Portland is also moving forward with composting pilot project and is expanding this program to include drop offs at community gardens around the peninsula to make this more accessible.

Other items for work plan include introduction on funding mechanisms for sustainability projects and learning about current state of tree canopy and considering expansion of Heritage Tree Ordinance.

Councilor Ray wonders if S&T Committee would like to make the small change to the Plastic Straw Ordinance so that alternative material straws can be provided without request, but plastic straws can still be provided to those with disability with request. The Committee agrees. Councilor Ray will move forward with drafting such an amendment.

Meeting Conclusion

Councilor Zarro motions to adjourn. Councilor Thibodeau seconds the motion. Passed unanimously, (3-0). Meeting adjourned at 7:37 PM.



CITY OF PORTLAND

Sustainability Office

Troy Moon

Sustainability Director

Sustainability Updates

April 2021

Staffing:

We will be able to introduce our new Sustainability Associate during our May meeting.

Pesticide Ordinance:

The PMAC is looking at invasive insects that are threatening Maine. These include Emerald Ash Borer and Spotted Lanternfly. Staff will be attending a workshop on this issue presented by the State of Maine Department of Forestry and Agriculture.

Energy:

We are receiving energy benchmarking reports from the owners of buildings 20,000 square feet or more with a single tenant. Casey presented a “how to benchmark” workshop earlier in April that is now posted on our website. We are providing support to building owners with questions and have trained several volunteers to be benchmarking coaches to support building owners who need extra help.

We are working on an MOU with CMP to repair the lights on the Western Promenade.

Waste Reduction

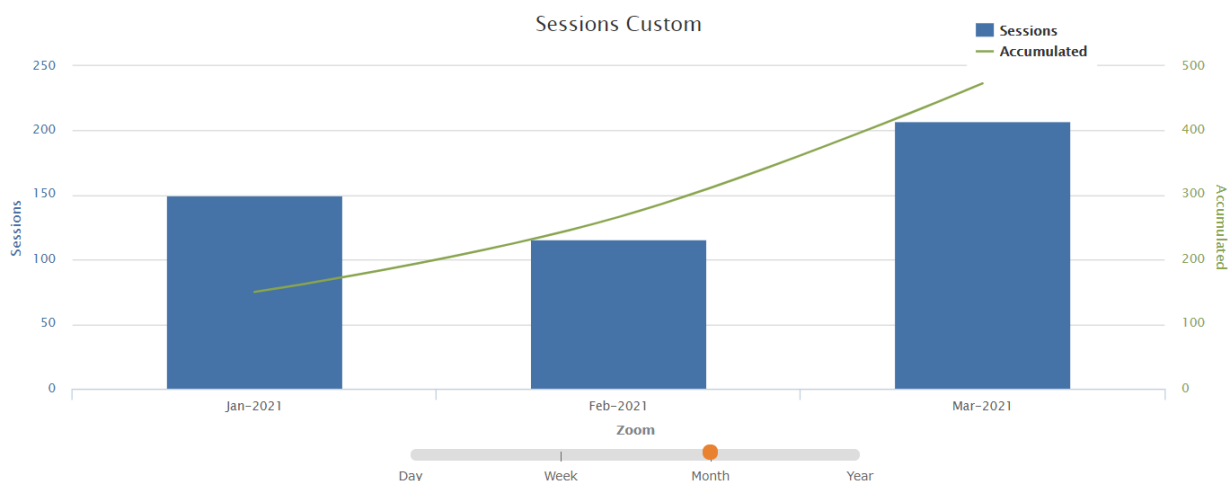
On Earth Day we will be announcing our food composting drop of pilot program. We will be setting up drop off locations at Boyd Street Garden, North Street Garden, Clark St. Garden, Libbytown Garden, and Riverside Recycling. Residents will be able to empty their food scraps into containers stationed there instead of disposing of them in the trash. The Sustainability Office will also be collaborating with the University of Maine Mitchell Institute and the Maine DEP to educate people about the food recovery hierarchy that emphasizes food waste waste reduction and recovering food to feed hungry people.

Straw Ordinance:

We will discuss possible amendments to the ordinance during our meeting this month.

Electric Vehicles

Residents continue to demonstrate strong interest in our EV chargers. In the first quarter of 2021 nearly 500 cars have charged up in front of City Hall or at Payson Park.



Education and Outreach:

We held our fifth monthly One Climate Future coffee hour on April 9 and focused on community solar. We talked about what it is, how it came to Maine, and how to participate. We continue to have very strong attendance. Everyone is welcome to attend these informal community conversations that happen on the 2nd Friday of the month at 9 AM. Information is one www.oneclimatefuture.org

We have an intern working on outreach and education to the Spanish speaking community. We should be able to share examples in May.

We continue to update the One Climate Future website and to promote OCF on social media: Facebook, Instagram, and Twitter.



CITY OF PORTLAND
Housing and Economic
Development Department
Gregory A. Mitchell, Director

Memorandum

To: Chair Ray and Members of the Sustainability and Transportation Committee

From: Bill Needelman, Waterfront Coordinator

Date: April 16, 2021

RE: April 21, 2021 Communication on Proposed Public Landing at Ocean Gateway

CC: Jon P. Jennings, City Manager
Greg Mitchell, Housing and Economic Development Director
Troy Moon, Sustainability Director
Kathy Alves, Ports and Facilities Director
Ethan Hipple, PR&F Director

Introduction:

The need for expanded public landing facilities in Portland has been discussed publicly and privately within the Portland Harbor and Island communities for decades. To meet the growing needs of recreational and commercial boaters and to mitigate against significant shortcomings in the existing facilities, city staff is recommending a new public landing to be constructed within the Ocean Gateway marine passenger terminal complex. The project is estimated to cost \$360,000. Staff has filed a letter of intent and prepared an application for \$180,000 from the Maine Small Harbor Improvement Program (SHIP) and will fund the balance of the costs with a combination of in-kind contributions and operating funds from the FY21 and FY22 budgets.

Purpose and Need:

Portland Harbor is one of Maine's busiest water bodies, but has an inadequate supply of full tide access to transient berthing for public use. Currently, the boating public has limited options for short-term tie up in Portland Harbor. Two public boat ramps, one each in Portland and South Portland, are dedicated to trailered launch/haul activities. Temporary berthing is found at South Portland's Thomas Knight Park (+/-140', plus additional "inside" berthing for smaller craft,) and in Portland at the Maine State Pier (+/-108'). Maine State Pier is also the location for Portland's "Buoy Park" public landing, serving pick up and drop off users only (no tie up.) The maximum capacity of all of Portland Harbor's public landings serves only 8-15 vessels at a time, with South Portland's Thomas Knight Park holding the majority.

The above supply of transient public berthing is tiny compared with over 1500 walk-on recreational berthing slips in Portland Harbor and over 12,000 linear feet of commercial berthing in Portland alone. The above berthing supply is multiplied by over 900 moorings managed by the Portland Harbor Commission as well as hundreds of additional moorings located with the towns of Long Island and Chebeague Island.

The Buoy Park landing is over-subscribed by water taxi use and is highly constrained by Casco Bay Lines Ferry and emergency services vessel berthing and operations. Water taxi service to the Islands of Casco Bay has increased dramatically over the last few years, creating congestion concerns at Buoy Park both on the water and on the land. Neither the public landing on Maine State Pier nor Buoy Park has a close vehicle drop off area, which inconveniences users and invites illegal parking on Commercial Street and in the area of Casco Bay Lines.

Casco Bay island communities depend on the City of Portland for everyday needs and the lack of public dockage restricts access to urban services by island residents. For decades, islanders have noted the lack of public tie up as a significant problem which constrains the use of private boats for everyday errands, visitor pick up, or enjoyment of the downtown.

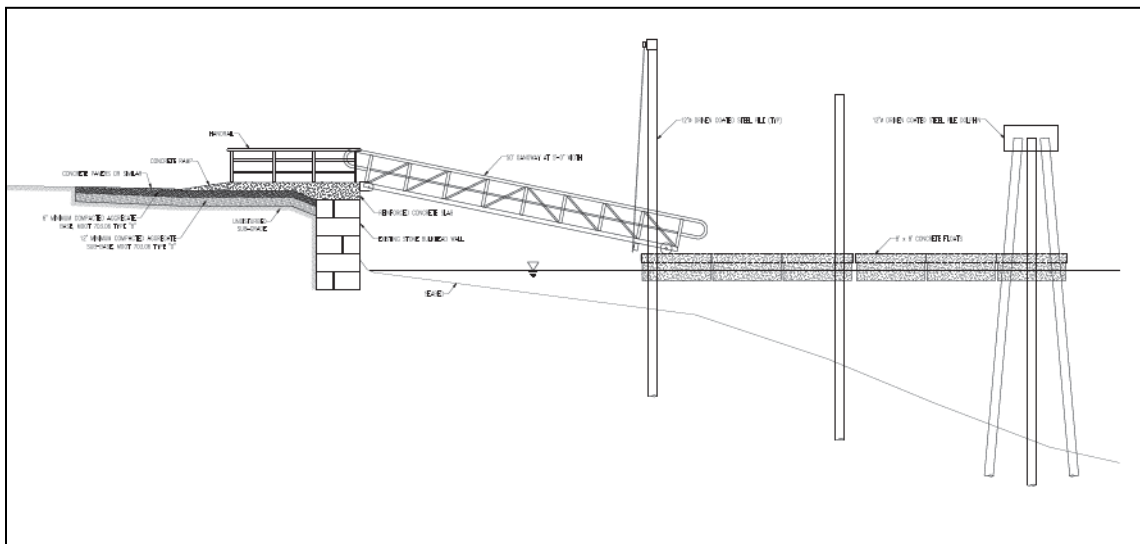
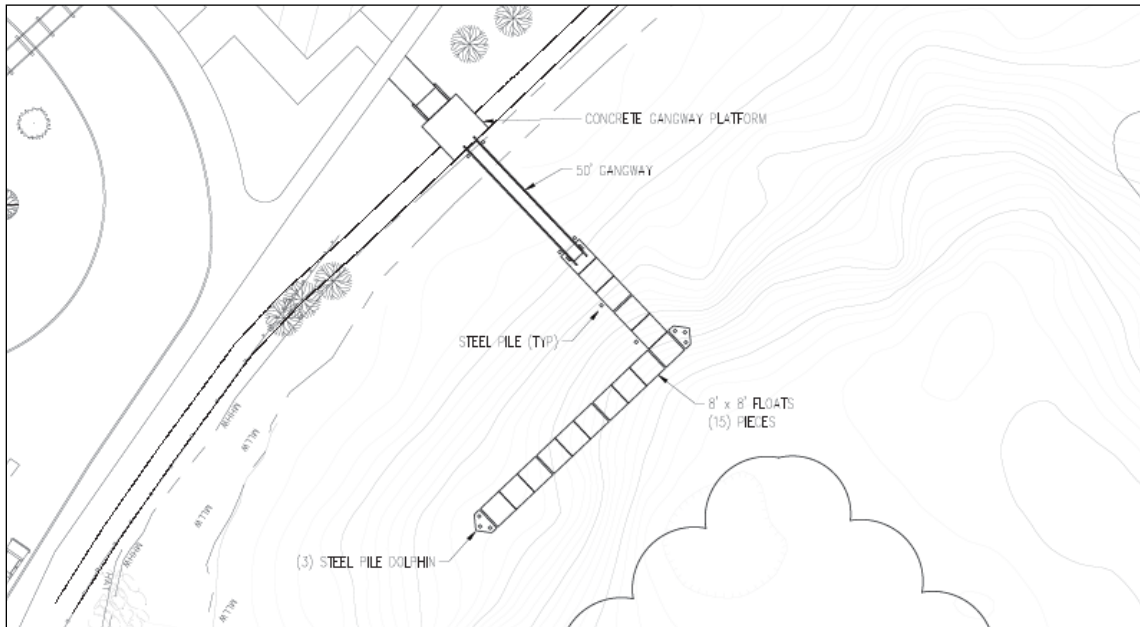
The proposed facility solves problems on both the land and water by more than doubling Portland's supply of public transient berthing in an area already served by efficient vehicular circulation. Additionally, the Ocean Gateway complex is integrated with the City's extensive pedestrian/bicycle trail network, has nearby on-street public parking, access to nearby commercial long-term parking, and business hour access to public restrooms. Expanded public landing capacity at Ocean Gateway will serve the entire Casco Bay region and will leverage previous investments and its urban context to multiply its value to the community.

Project Description:

The Public Landing at Ocean Gateway is proposed to be located east of the Ocean Gateway terminal, near the "paint building" which currently houses the Maine Narrow Gauge Museum. The site is located proximate to the newly improved "Amethyst Lot" openspace and served by the existing Ocean Gateway vehicular turnaround.



The Public Landing at Ocean Gateway project consists of final design, permitting, and construction. Landside improvements would include construction of a concrete pad and pedestrian walkways. Pedestrian access to the dock would be provided by a 50-foot aluminum gangway ramp. The dock itself would be assembled from already owned recycled concrete floats secured to steel pilings and mooring dolphins. The completed facility would provide +/- 240 linear feet of public transient berthing.



City Policy:

Expanded public access to the waters of Casco Bay is a long-standing goal of the city as emphasized in the City's Comprehensive Plan excerpts below:

- Maintain and modernize infrastructure to support the working waterfront and port capabilities.
- Recognize and reinforce waterborne transport of goods and people as foundational to our community.
- Promote passive and active recreational access to the waterfront

Portland's Plan 2030, page 34

- Expand waterfront access for the public where possible and appropriate.
- Program, design, and transform the Amethyst Lot into a signature waterfront open space for community boating, recreation, and active marine use.
- Explore the potential for greater recreational access to and along the Fore River.
- Protect and promote access to the waterfront and Portland islands for commercial and marine activity, including berthing.

Portland's Plan 2030, page 35

Timeline:

The project could begin as soon as there is a funding agreement with the grantor. First stages would be final design and permitting in 2021. Pending permit issuance, bidding and construction would likely take place in 2023, but potentially as early as the 2022 construction season. The facility would have a 25-50 year life expectancy and would require typical annual maintenance.

User Groups:

The proposed facility will expand the capacity of public transient berthing for the extensive boating community of Portland Harbor. As noted above, this community includes recreational boaters, islanders, fishermen and commercial water taxis. Additionally, existing public landings frequently serve smaller vessel tour operators, marine based non-profits (Maine Island Trails, Friends of Fort Gorges, and others) as well as lobster fishermen. While not intended as a commercial dock, the new public landing will relieve congestion and expand access to both commercial and noncommercial boaters, as typically seen using existing facilities.

Required Permits:

The full spectrum of environmental, marine, and land use permits are anticipated, including:

- **Maine DEP** *Natural Resource Protection Act, Wetlands alteration
Amendment to the Ocean Gateway Site Location of Development Permit*
- **US Army Corps of Engineers** *Clean Water Act*
- **Portland Harbor Commission** *General Marine Construction Permit*
- **City of Portland** *Site Plan, including Shoreland Zone, and Flood
Plain Management*

Project Budget:

Total Project Cost:	\$360,000
FY2021 Operating Funds:	\$ 38,000
Waterfront and Public Buildings	Approved current year budget,

FY2022 Operating Funds:	\$ 41,000	Requested in current budget document,
to be approved 5-21		
In-kind contribution of Concrete Floats:	\$101,000	Owned by City, value estimate
SHIP Request (50%)	\$180,000	

Attachments:

TEC Associate Drawings and Preliminary Design



NOTES

1. SURVEY DATA INCLUDED FOR REFERENCE ONLY, AND MAY NOT BE UP TO DATE WITH EXISTING CONDITIONS.
2. DUE TO THE NATURE OF A TIDAL ENVIRONMENT, ALL HYDROGRAPHIC INFORMATION DEPICTED ON THESE PLANS CAN ONLY BE CONSIDERED TO REPRESENT CONDITIONS AT THE TIME OF THE BATHYMETRIC SURVEY.
3. BATHYMETRY DATA COLLECTED BY APEX COMPANIES, LLC OF BOSTON, MASSACHUSETTS, FROM NOVEMBER 29 THROUGH DECEMBER 1 OF 2016.
4. DEPTHS ARE BASED ON MEAN LOWER LOW WATER (MLLW) AND ARE SHOWN IN FEET.
5. CONTOUR INTERVAL IS ONE FOOT.

TIDAL DATA (ADJUSTED TO MLLW 0.00)

HIGHEST OBSERVED WATER LEVEL - 14.17'
MEAN HIGHER HIGH WATER LEVEL - 9.91'
MEAN HIGH WATER LEVEL - 9.45'
MEAN LOW WATER LEVEL - 0.34'
MEAN LOWER LOW WATER LEVEL - 0.00'
LOWEST OBSERVED WATER LEVEL - MINUS 3.41'

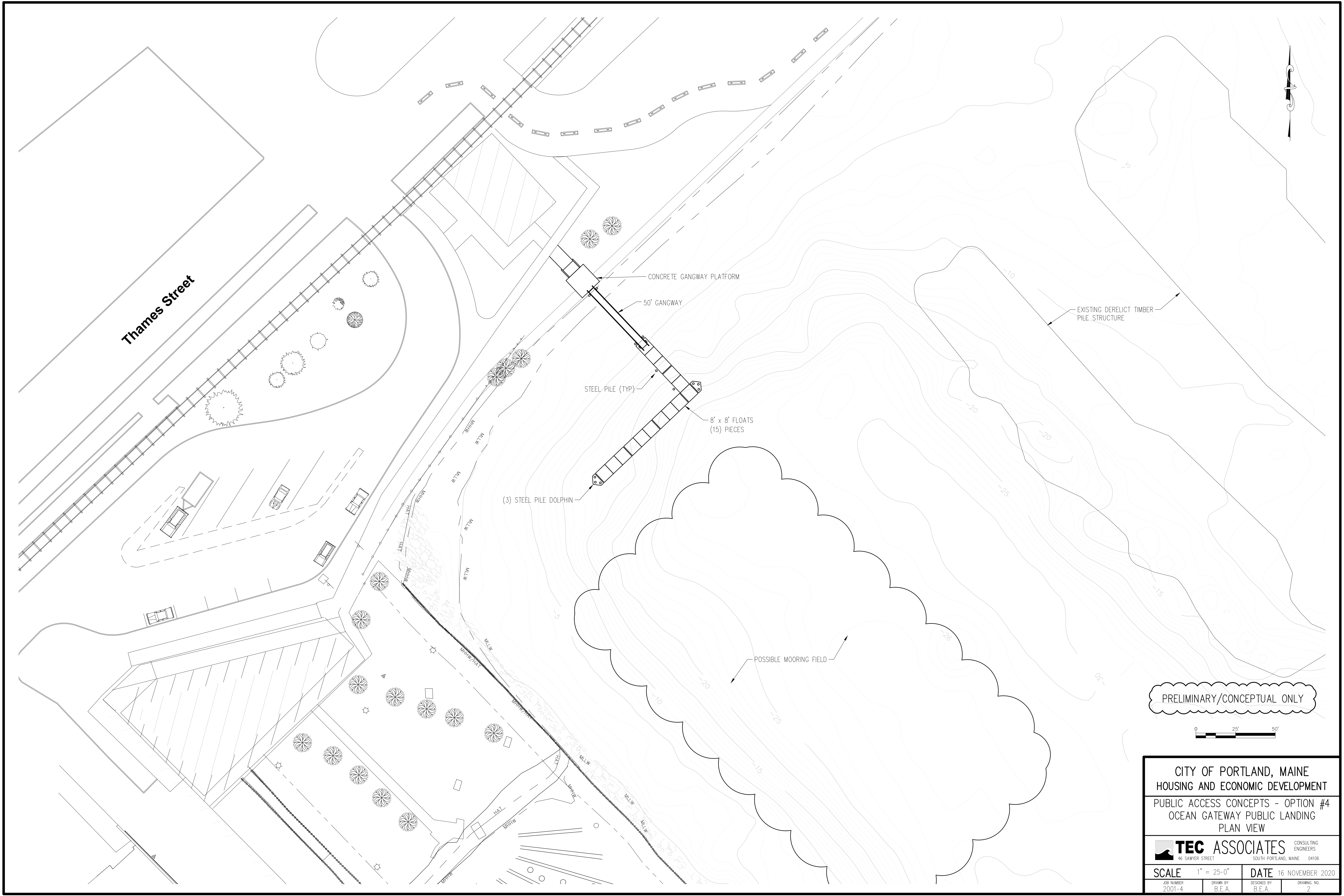
PRELIMINARY/CONCEPTUAL ONLY

CITY OF PORTLAND, MAINE
HOUSING AND ECONOMIC DEVELOPMENT

PUBLIC ACCESS CONCEPTS - OPTION #4
OCEAN GATEWAY PUBLIC LANDING
SITE PLAN AND BATHYMETRY

TEC ASSOCIATES CONSULTING ENGINEERS
46 SAWYER STREET SOUTH PORTLAND, MAINE 04106

SCALE	1" = 500'	DATE	16 NOVEMBER 2020
JOB NUMBER	2001-4	DRAWN BY	B.E.A.
		DESIGNED BY	B.E.A.
		DRAWING NO.	1



Thames Street

CONCRETE GANGWAY PLATFORM

50' GANGWAY

STEEL PILE (TYP)

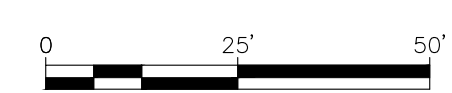
8' x 8' FLOATS
(15) PIECES

(3) STEEL PILE DOLPHIN

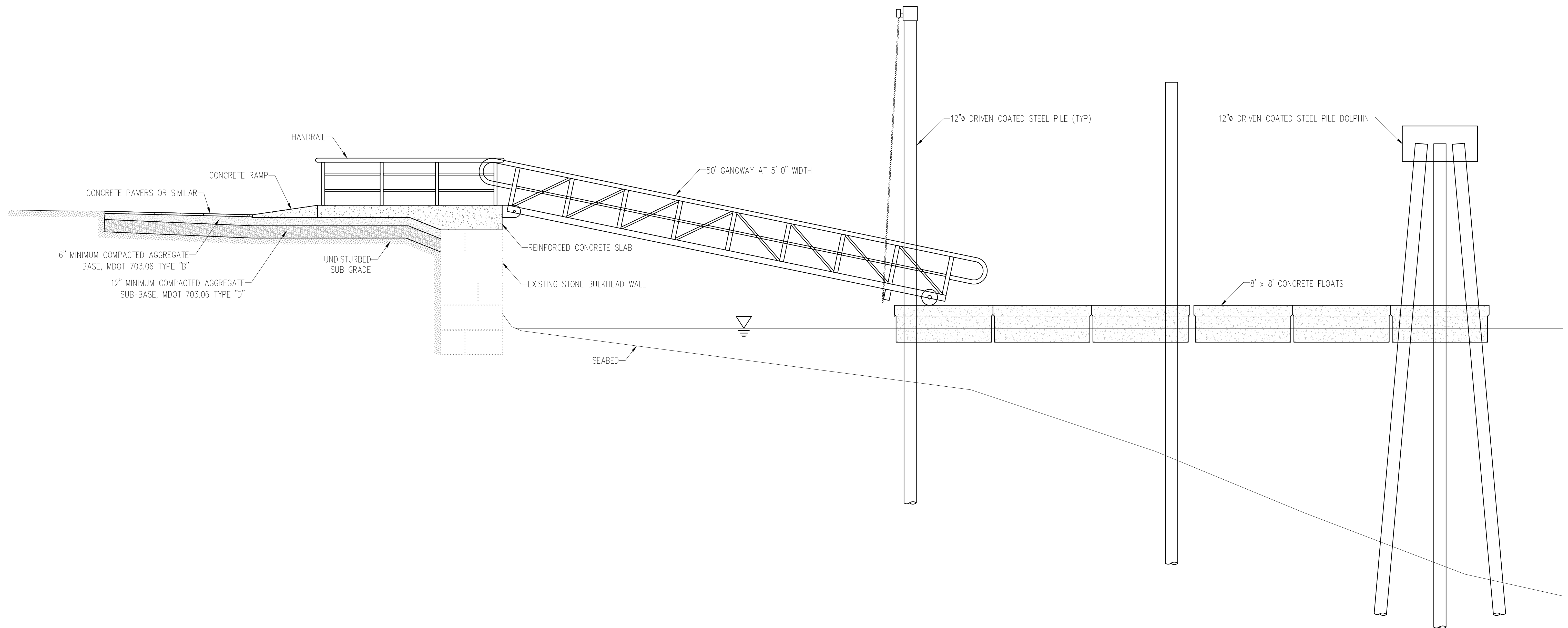
EXISTING DERELICT TIMBER
PILE STRUCTURE

POSSIBLE MOORING FIELD

PRELIMINARY/CONCEPTUAL ONLY



CITY OF PORTLAND, MAINE HOUSING AND ECONOMIC DEVELOPMENT			
PUBLIC ACCESS CONCEPTS - OPTION #4 OCEAN GATEWAY PUBLIC LANDING PLAN VIEW			
 TEC ASSOCIATES 46 SAWYER STREET SOUTH PORTLAND, MAINE 04106		CONSULTING ENGINEERS	
SCALE 1" = 25'-0"		DATE 16 NOVEMBER 2020	
JOB NUMBER 2001-4	DRAWN BY B.E.A.	DESIGNED BY B.E.A.	DRAWING NO. 2



PRELIMINARY/CONCEPTUAL ONLY

CITY OF PORTLAND, MAINE
HOUSING AND ECONOMIC DEVELOPMENT
PUBLIC ACCESS CONCEPTS - OPTION #4
OCEAN GATEWAY PUBLIC LANDING
SECTION VIEW

TEC ASSOCIATES CONSULTING ENGINEERS
46 SAWYER STREET SOUTH PORTLAND, MAINE 04106

SCALE $\frac{1}{4}" = 1'-0"$		DATE 16 NOVEMBER 2020	
JOB NUMBER 2001-4	DRAWN BY B.E.A.	DESIGNED BY B.E.A.	DRAWING NO. 3

TEC ASSOCIATES
 46 Sawyer Street
 South Portland, Maine 04106
(207) 767-6068 FAX (207) 767-7125

JOB 2001-4

SHEET NO. 1 OF 2

CALCULATED BY BEA **DATE** 12/1/2020

CHECKED BY **DATE**

Sheet Title: City Access Float Proposals - Ocean Gateway

ITEM #	DESCRIPTION	UNITS	UNIT PRICE	QUANTITY	TOTAL (\$)
1	<u>MATERIALS</u>				
1.1	Pipe Pile, Coated	lf	\$52.00	1,000	\$52,000.00
1.2	Concrete for Gangway Pad	cy	\$137.50	20	\$2,750.00
1.3	Rebar #6, Epoxy Coated	lb	\$0.75	250	\$187.50
1.4	Gangway, 5'x50'	ls	\$20,000.00	1	\$20,000.00
1.5	Gangway Hardware	ls	\$2,000.00	1	\$2,000.00
1.6	Float Hardware	ls	\$4,000.00	1	\$4,000.00
1.7	Galvanized Handrail	lf	\$6.20	180	\$1,116.00
1.8	Loam/Compost Mix	cy	\$35.25	50	\$1,762.50
1.9	Seed	sy	\$0.94	700	\$658.00
1.10	Base Course Crushed Rock	cy	\$25.00	15	\$375.00
1.11	Plant Mix Bearing Course, 2"	sy	\$7.60	25	\$190.00
1.12	Plant Mix Wearing Course, 1½"	sy	\$6.35	25	\$158.75
1.13	Park Fixtures	ea	\$500.00	10	\$5,000.00
1.14	15% Contractor Mark-up				\$12,779.66
					Subtotal \$102,977.41
2	<u>LABOR/EQUIPMENT</u>				
2.1	Mobilization/Demobilization	ls	\$5,000.00	2	\$10,000.00
2.2	Marine Demolition	day	\$7,000.00	4	\$28,000.00
2.3	Drive Pipe Pile	day	\$7,000.00	5	\$35,000.00
2.4	Site Demolition/Tree Removal	day	\$4,000.00	3	\$12,000.00
2.5	Excavation	day	\$4,000.00	3	\$12,000.00
2.6	Set Rebar and Forms	day	\$4,000.00	1	\$4,000.00
2.7	Concrete Pour	day	\$4,000.00	1	\$4,000.00
2.8	Sitework	day	\$4,000.00	7	\$28,000.00
2.9	Paving	day	\$4,000.00	1	\$4,000.00
2.10	Traffic Control	day	\$120.00	12	\$1,440.00
2.11	15% Temporary Facilities				\$20,766.00
					Subtotal \$159,206.00
3	<u>ENGINEERING</u>				
3.1	Geotechnical	ls	\$15,000.00	1	\$15,000.00
3.2	Design/Permitting Phase	ls	\$15,000.00	1	\$15,000.00
3.3	Construction Phase	ls	\$6,000.00	1	\$6,000.00
					Subtotal \$36,000.00
	20% Contingency				\$59,636.68
					Grand Total \$357,820.10



Building the Region's
Public Transportation
Future

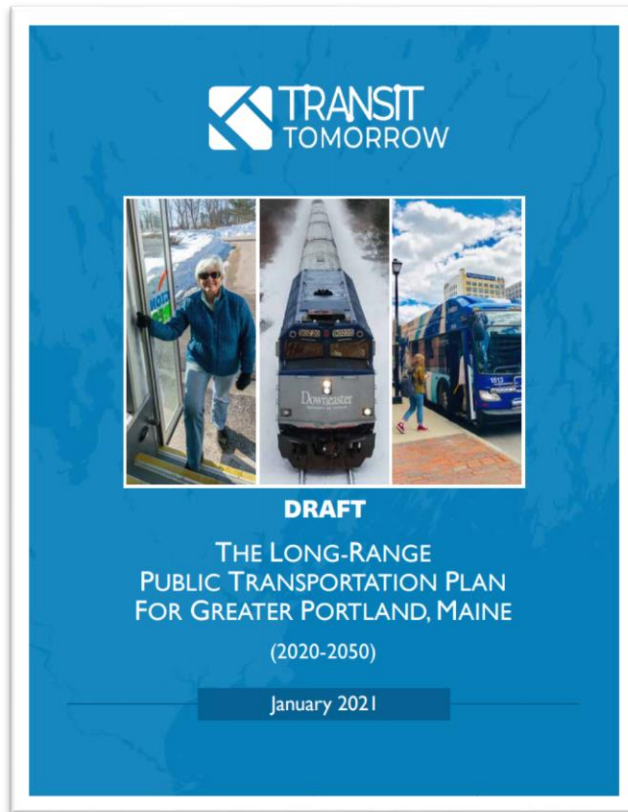


PHOTO: COREY TEMPLETON



City of Portland
Sustainability & Transportation Committee
April 21, 2021

Project Tasks and Schedule



Transit Tomorrow plan available here:
<https://www.gpcog.org/176/Transit-Tomorrow>

- **Kick-Off Event** (March 2019)
- **Existing Conditions** (Spring 2019)
- **Vision Statement** (Summer 2019)
- **Scenario Planning** (Spring 2020)
- **COVID-19 Pandemic...**
- **Recommendations** (Summer 2020)
- **Draft Plan** (January 15th 2021)
- **Final Plan** (February 2021)

Transit Tomorrow Vision Statement

Using our region's public transportation is faster and more affordable than driving a car. Our system is funded sustainably and provides reliable and seamless transportation for our community, including commuters, mainland and island residents, and those with limited mobility options. Our communities support the long-term viability of public transportation by focusing new homes and jobs where people already live and work.

To accomplish this, we envision a public transportation system that:



Stimulates Economic Development



Enhances Great Places



Reduces Climate Pollution



Expands Mobility



Elevates the Customer Experience

How we realize the vision



MAKE
Transit
Easier



CREATE
Frequent
Connections



IMPROVE
Rapid
Transit

Create Transit-Friendly Places



Make Transit Easier

Recommendations



RECOMMENDATIONS

Make Transit Easier

RECOMMENDATION	ACTION STEP	ESTIMATED COST	POTENTIAL FUNDING SOURCE
ADOPT INNOVATIVE CUSTOMER SERVICE TECHNOLOGY	Adopt a unified mobility platform Launch a regionally managed web-based portal that includes trip planning, scheduling, fare payment, and real-time notifications for transportation.	\$500k initial + \$50k per year	- FTA discretionary grant programs such as the Accelerating Innovative Mobility Challenge Grant Program and the Mobility for All Pilot Program Grants - FTA Section 5310
	Integrate new technology into paratransit communications Pursue technology that enhances communication between paratransit providers and customers.	\$300k initial + 30k per year	
ADVANCE PARTNERSHIPS WITH BUSINESSES AND ANCHOR INSTITUTIONS	Establish a transportation management association (TMA) Launch a regional TMA to implement strategies that support increased use of public transit.	\$200k initial + \$50k per year	- Member dues - Parking revenue - Congestion Mitigation and Air Quality (CMAQ) Improvement Program - Foundation grants - Large institutions - Community organizations
	Partner to provide free and low-cost fare programs Promote transit ridership by youth, families, and people with low incomes through special passes and bulk discounts.	\$75k initial + \$40k per year	
ENHANCE FIRST AND LAST MILE CONNECTIONS	Develop welcoming stops Adopt regional goals and funding mechanisms for accessible, family-friendly transit stops.	\$2.6M ¹	- FTA Section 5307 - FTA discretionary grant programs - Private sector partners
	Prioritize walking, biking, and rolling to transit Pursue implementation of transit-supportive recommendations in <i>"Getting There From Here: An Active Transportation Plan."</i>	N/A	
	Pursue pilots of feeder services Partner with "emerging mobility providers" to conduct targeted pilots that provide "feeder trips."	\$500k per year	
STRENGTHEN COORDINATION AMONG PROVIDERS	Establish a mobility management program Establish a mobility management program at GPCOG to provide formal support for improving coordination across providers and modes.	\$100k per year	- FTA Sections 5307, 5310 and 5311 - FTA discretionary grant programs - Foundation grants
	Convene a local coordination working group Convene a multi-sector working group to pursue/monitor coordination across public transit services.	N/A (included in \$100k above)	
IMPROVE DOOR-TO-DOOR OPTIONS	Expand community-based volunteer driver programs Support new and expanded community-based volunteer driver programs.	\$75k per year	- Municipalities - Community organizations - Agency partnerships - FTA Section 5310 - FTA discretionary grants - Rural Transportation Assistance Program
	Advance user-focused improvements to paratransit Develop a strategic plan for improving paratransit in the region.	\$100k	
	Pilot new service models for door-to-door rides Launch targeted pilot programs of subsidized, on-demand rides designed to service key populations.	\$500k per year	

¹Average investment of \$4k per stop for the region's 650 bus stops.



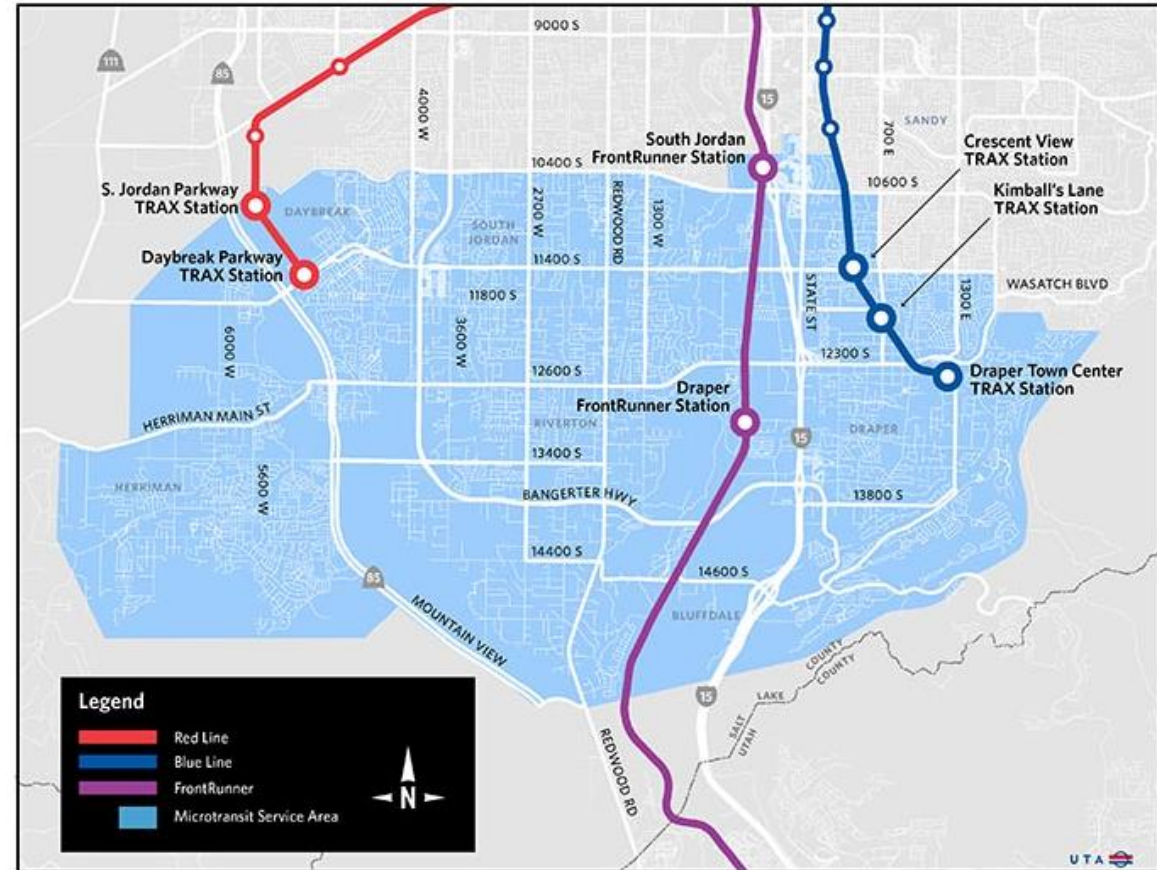
MICROTRANSIT EXAMPLE



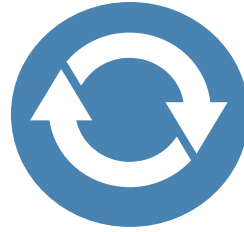
Make Transit Easier

<https://www.rideuta.com/Services/UTA-on-Demand-by-Via>

UTA On Demand by Via (Salt Lake City)



- 65 square mile service area
- Trip must start and end within service area
- Book a ride (like Uber/Lyft) – app displays pick up location
- \$2.50 per ride



Create Frequent Connections

Recommendations

RECOMMENDATIONS 2020–2050

Create Frequent Connections



- **Improve frequency / service hours of existing routes**
10 min peak / 20 min off-peak
6 a.m. to midnight, 7 days per week
- **Add new high frequency downtown circulator routes**
- **Expand transit service to new locations**

EXISTING FREQUENCY

Create Frequent Connections

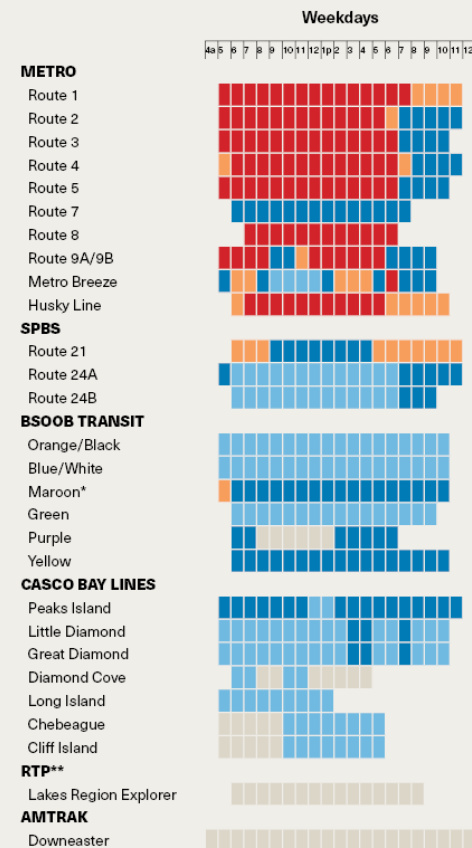
Frequency



Tables 3a/3b summarize each transit agency's current route frequencies and spans of service. Frequencies were generalized based on the average outbound and inbound times for each hour. The graphic represents the greatest frequency and span of service for each agency, although some services, such as the Casco Bay Lines, operate at different times depending on the season. Additionally, areas in the region that are served by multiple, overlapping routes (for example Congress Street in Portland) will have shorter average wait times than shown in the tables.

TABLE 3a:

TRANSIT FREQUENCY AND SPAN, WEEKDAYS



*currently not in operation
 **Saturday service only available in summer

Frequency

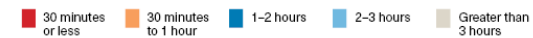
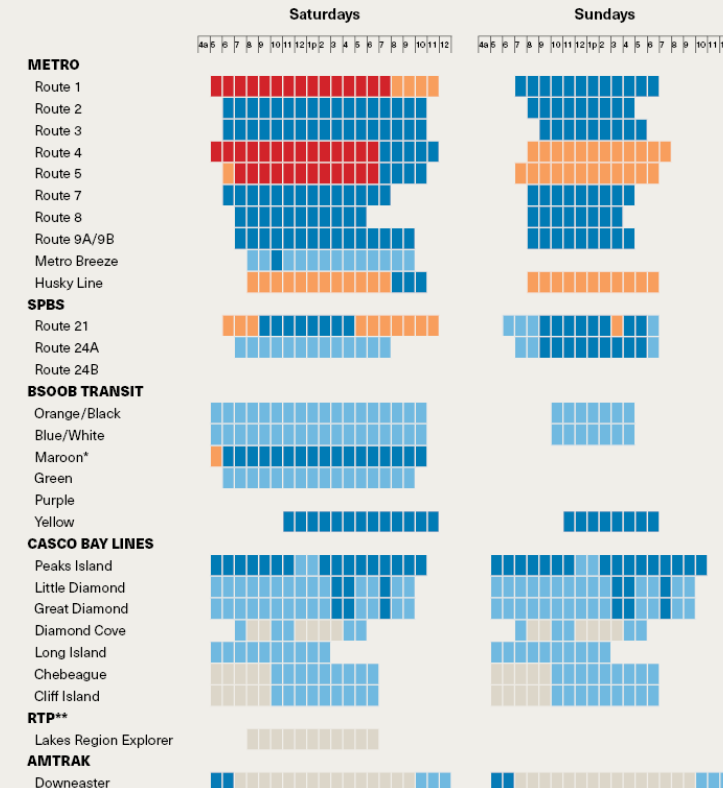


TABLE 3b:

TRANSIT FREQUENCY AND SPAN, WEEKENDS



*currently not in operation
 **Saturday service only available in summer

EXISTING FREQUENCY

Create Frequent Connections

Weekday Morning (8 a.m. – 9 a.m.)



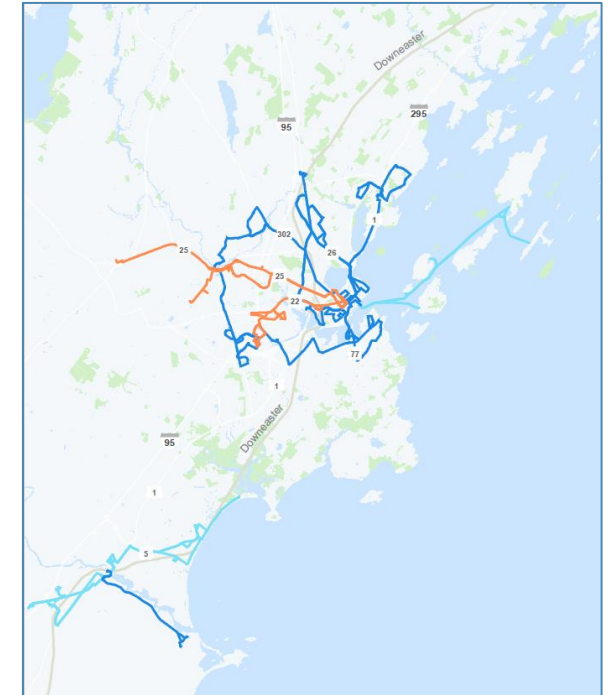
Weekday Afternoon (1 p.m. – 2 p.m.)



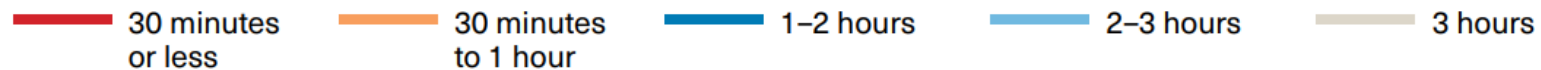
Saturday Afternoon (1 p.m. – 2 p.m.)

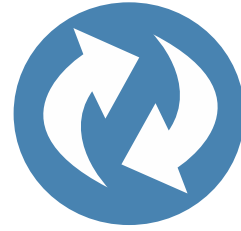


Sunday Afternoon (1 p.m. – 2 p.m.)



Approximate Frequency



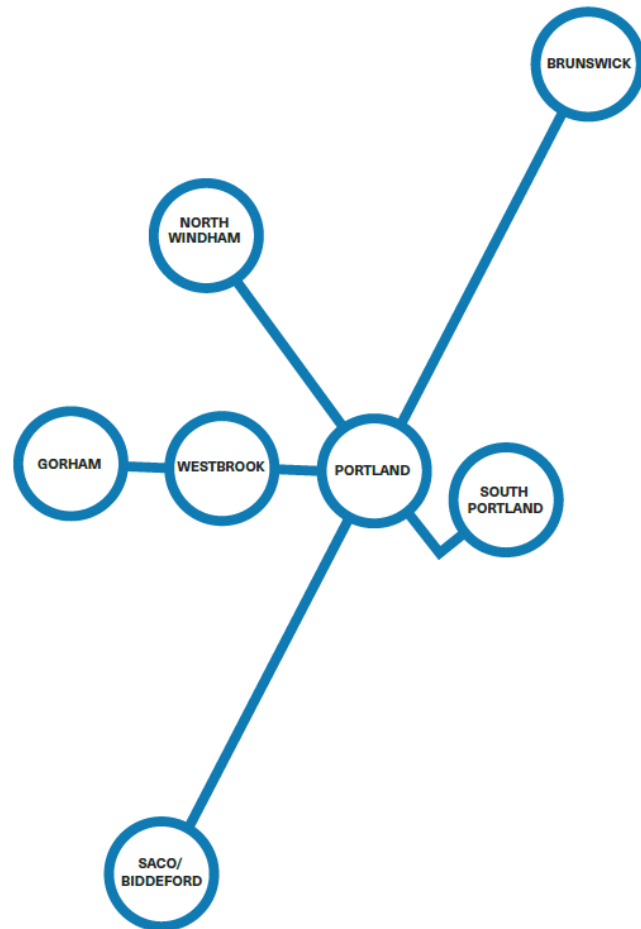


Improve Rapid Transit

Recommendations

RECOMMENDATIONS 2020–2050

Improve Rapid Transit



MAJOR MARKET CONNECTIONS	EXISTING ROUTES	EXISTING TRANSIT	COMMUNITIES SERVED
BIDDEFORD – SACO – PORTLAND	- Route 1 - I-95 - Rail Main Line	- BSOOB Transit ZOOM Express - BSOOB Transit Green Line - NNEPRA Downeaster - YCCAC - RTP	- Biddeford - Saco - Scarborough - South Portland - Portland
BRUNSWICK – PORTLAND	- Route 1 - I-295 - Rail Main Line	- METRO BREEZ - METRO Route 7 - NNEPRA Downeaster - RTP	- Brunswick - Freeport - Yarmouth - Cumberland - Falmouth - Portland
GORHAM – WESTBROOK – PORTLAND	- Route 25 - Rail Spur	- METRO Husky Line - METRO Route 4 - RTP	- Gorham - Westbrook - Portland
NORTH WINDHAM – PORTLAND – SOUTH PORTLAND	- Route 302 / Forest Avenue - Route 77 - Broadway	- Lakes Region Explorer - METRO Route 2 - SPBS Route 21 - SPBS Route 24A - SPBS Route 24B - RTP	- Windham - Westbrook - Portland - South Portland

IMPROVE RAPID TRANSIT

Rapid Transit Options



Bus Rapid Transit
Health Line, Cleveland, OH



Light Rail
MAX Light Rail, Portland, OR



Commuter Rail
Amtrak Downeaster, ME, NH, MA



Create Transit-Friendly Places

Recommendations



PRIORITIES



Create Transit-Friendly Places

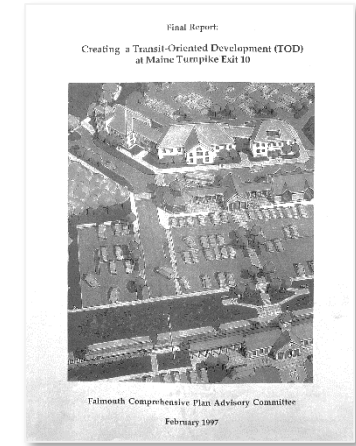
**Expand housing choices
and jobs near transit.**



RECOMMENDATIONS

Create Transit-Friendly Places

- **Zone for Public Transportation:** Work with municipalities to adopt zoning and policy changes that are compatible for higher density, walkable neighborhoods served by public transportation.
- **Target Investments to Places that Support Public Transportation:** Prioritize funding to places where people already live, work, visit, and use public transportation, and, where surrounding land use and zoning encourage transit-supportive development.
- **Create TOD Plans:** Create transit-oriented development plans for all priority centers served by transit.





RECOMMENDATIONS



Create Transit-Friendly Places

- **Ensure Complete Streets:** Adopt a regional complete streets policy and work with municipalities to adopt strong local policies to ensure streets are walkable, bikeable, and provide safe access to transit for all users regardless of age or ability.
- **Protect Open Spaces:** Protect natural resources and agricultural lands through regional conservation planning.

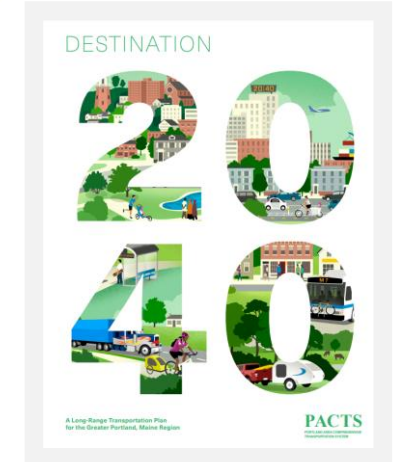




DESTINATION 2040



Create Transit-
Friendly Places

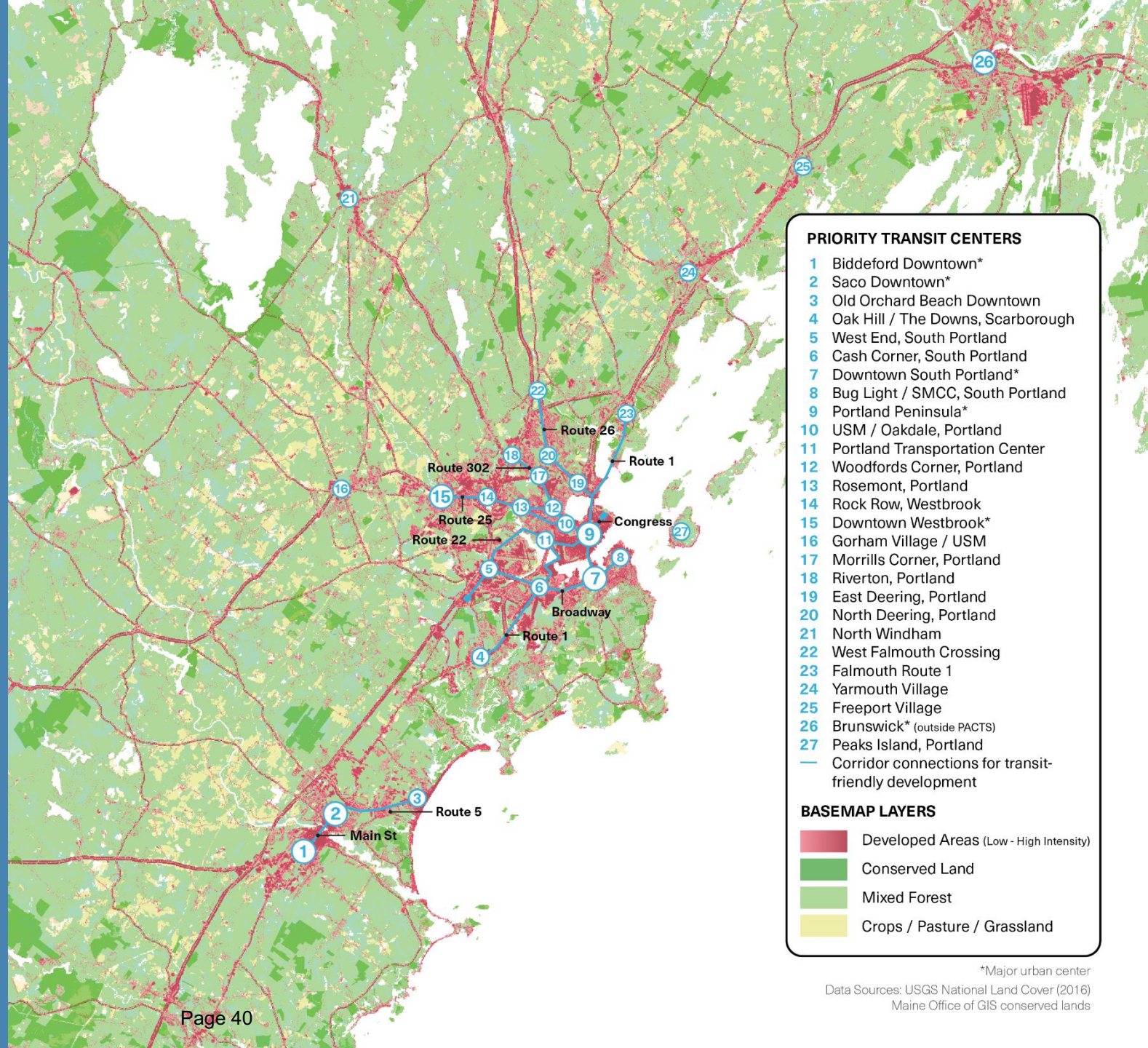


Destination 2040
Priority Centers and Corridors



PRIORITY TRANSIT CENTERS

Create Transit-
Friendly Places



QUESTIONS?



Transit Tomorrow

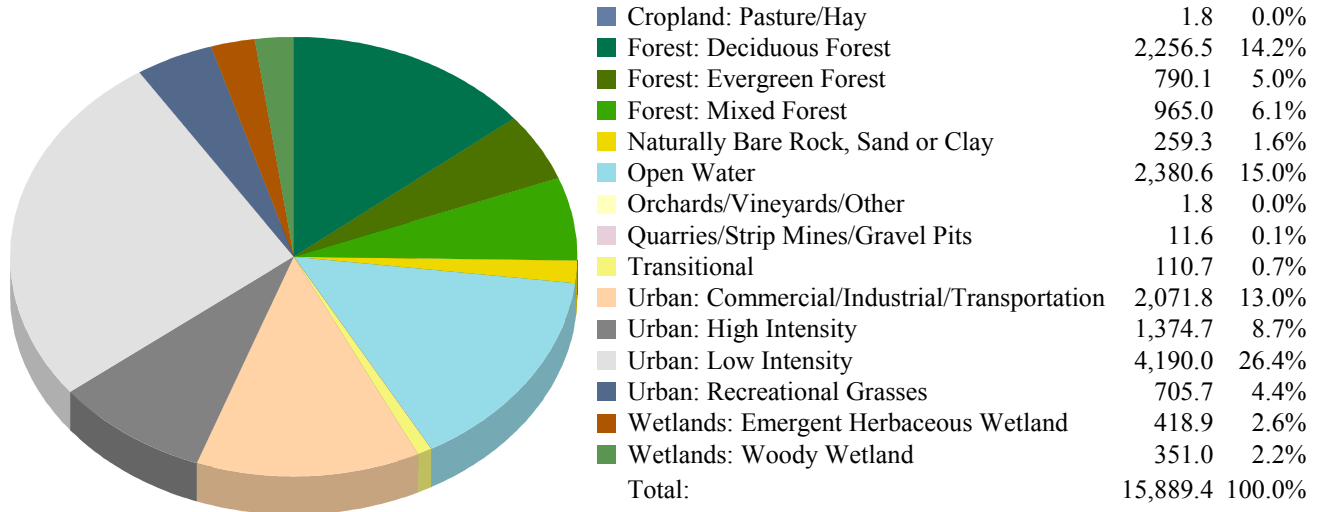
Transit Tomorrow plan available on project webpage here:

<https://www.gpcog.org/176/Transit-Tomorrow>

Email Project Manager

Rick Harbison, Senior Planner
rharbison@gpcog.org

The City of Portland, ME Rapid Ecosystem Analysis for 1992



Land cover areas are in acres

Total Tree Canopy: 4,011 acres (25.2%)

Air Pollution Removal

By absorbing and filtering out nitrogen dioxide (NO₂), sulfur dioxide (SO₂), ozone (O₃), carbon monoxide (CO), and particulate matter less than 10 microns (PM₁₀) in their leaves, urban trees perform a vital air cleaning service that directly affects the well-being of urban dwellers. CITYgreen estimates the annual air pollution removal rate of trees within a defined study area for the pollutants listed below. To calculate the dollar value of these pollutants, economists use "externality" costs, or indirect costs borne by society such as rising health care expenditures and reduced tourism revenue. The actual externality costs used in CITYgreen of each air pollutant is set by the each state, Public Services Commission.

Nearest Air Quality Reference City: ,

	<u>lbs. Removed</u>	<u>Dollar Value</u>
<i>Carbon Monoxide:</i>	10,728	\$4,578
<i>Ozone:</i>	135,883	\$417,031
<i>Nitrogen Dioxide:</i>	75,093	\$230,465
<i>Particulate Matter:</i>	100,125	\$205,009
<i>Sulfur Dioxide:</i>	39,335	\$29,466
<u>Totals:</u>	361,164	\$887,175

Carbon Storage and Sequestration

Trees remove carbon dioxide from the air through their leaves and store carbon in their biomass. Approximately half of a tree's dry weight, in fact, is carbon. For this reason, large-scale tree planting projects are recognized as a legitimate tool in many national carbon-reduction programs. CITYgreen estimates the carbon storage capacity and carbon sequestration rates of trees within a defined study area.

Total Tons Stored: 172,430

Total Tons Sequestered (Annually): 1,342

Stormwater

Trees decrease total stormwater volume and slows peak flow; both help cities to manage their stormwater and decrease detention costs. CITYgreen assesses how land cover, soil type, and precipitation affect stormwater runoff volume. It calculates the volume of runoff in a 2-year 24-hour storm event that would need to be contained by stormwater facilities if the trees were removed. This volume multiplied by local construction costs calculate the dollars saved by the tree canopy. The analysis uses the TR-55 model developed by the Natural Resource Conservation Service (NRCS) which is very effective in evaluating the effects of land cover/land use changes and conservation practices on stormwater runoff. The TR-55 calculations are based on curve number which is an index developed by the NRCS, to represent the potential for stormwater runoff within a drainage area. The higher the curve number the more runoff will occur. This analysis determines a curve number for the landcover conditions in 1992 and generates a curve number for the conditions if the trees are removed and replaced with urban landuse. The change in curve number reflects the increase in the volume of stormwater runoff.

Water Quantity (Runoff)

2-yr, 24-hr Rainfall: 2.75 in.

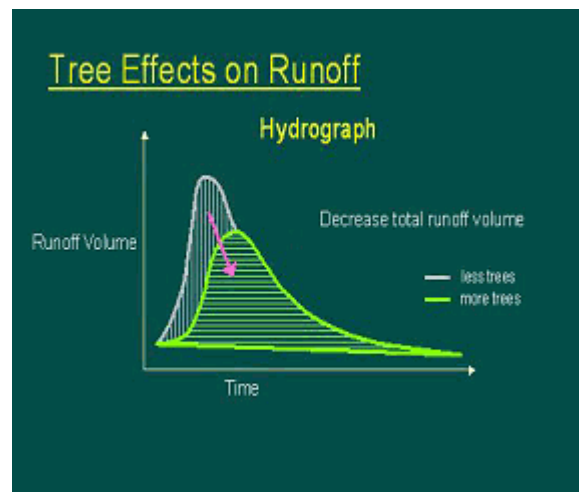
Curve Number based on 1992 Landcover: 83

Curve Number reflecting landcover if trees
are removed and replaced with urban: 98

Additional Storage volume needed
(to mitigate the change in peak flow): 73,327,418 cu. ft.
Construction cost per cu. ft.: \$2.00

Total Stormwater Savings: \$146,654,837

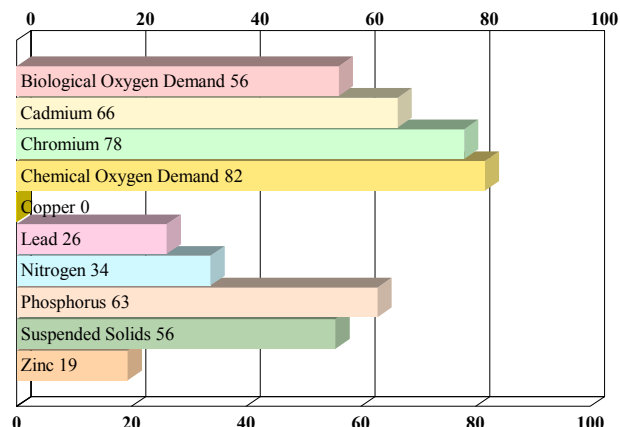
**Annual costs based on payments
over 20 years at 6% interest: \$12,786,037 per year**



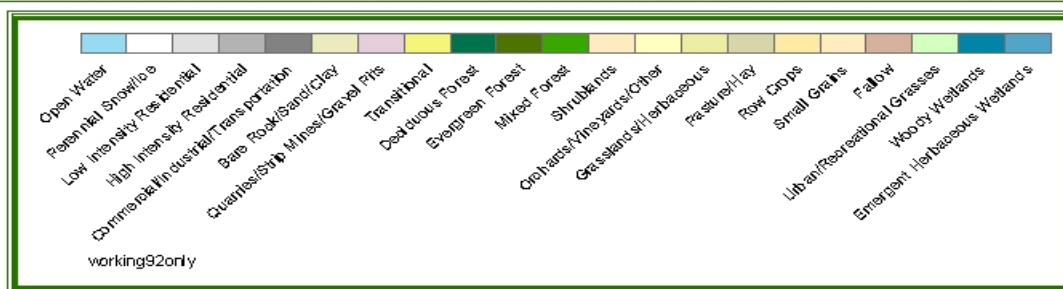
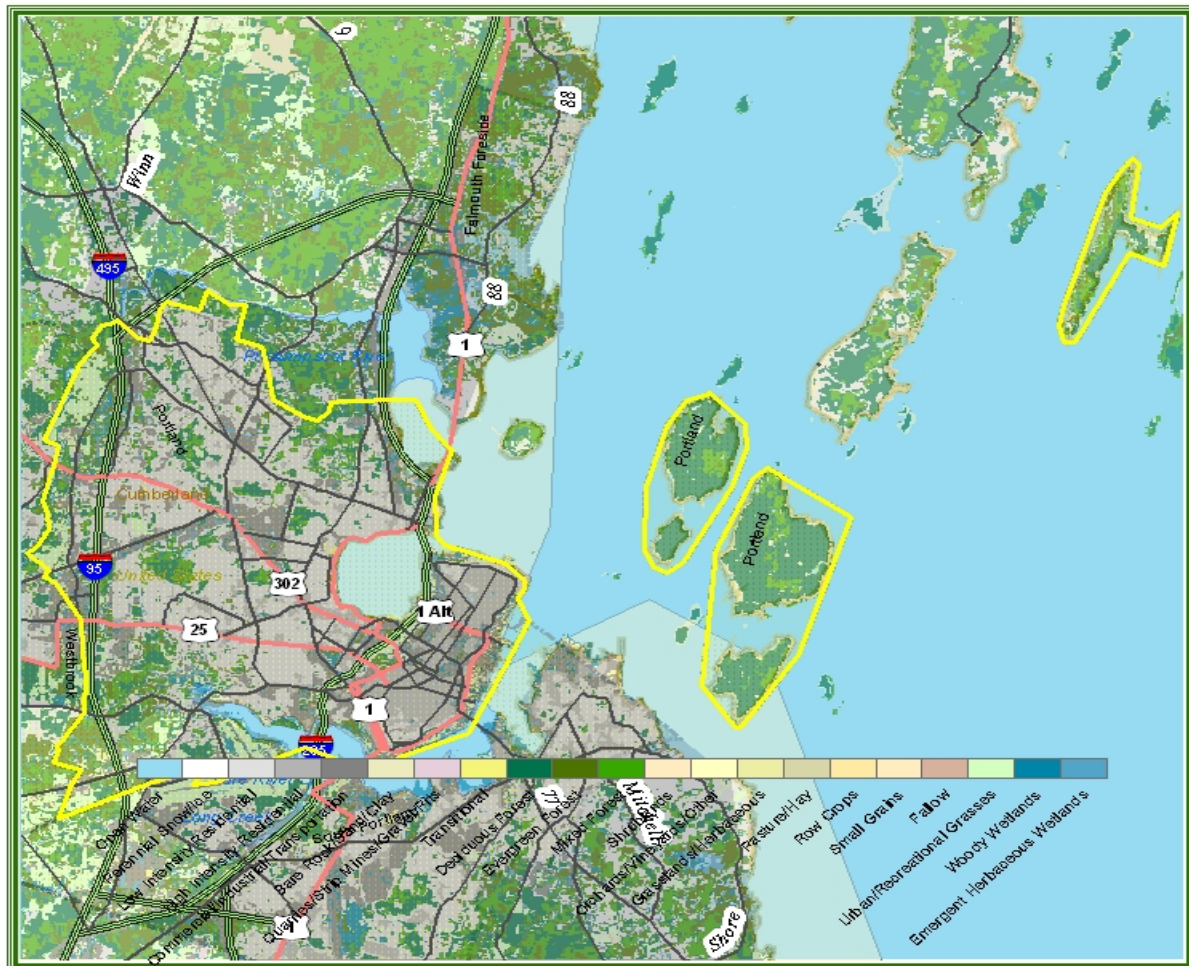
Water Quality (Contaminant Loading)

Cities must comply with Federal clean water regulations and develop plans to improve the quality of their streams and rivers. Trees filter surface water and prevent erosion, both of which maintain or improve water quality. Using values from the US Environmental Protection Agency (EPA) and Purdue University's L-thia spreadsheet water quality model, The Natural Resources Conservation Service (NRCS) developed the CITYgreen water quality model. This model estimates the change in the concentration of the pollutants in runoff during a typical storm event given the change in the land cover. This model estimates the Event Mean Concentrations of Nitrogen, Phosphorus, Suspended Solids, Zinc, Lead, Copper, Cadmium, Chromium, Chemical Oxygen Demand(COD), and Biological Oxygen Demand (BOD). Pollutant values are shown as a percentage of change.

Percent Change in Contaminant Loadings



The City of Portland, ME Rapid Ecosystem Analysis



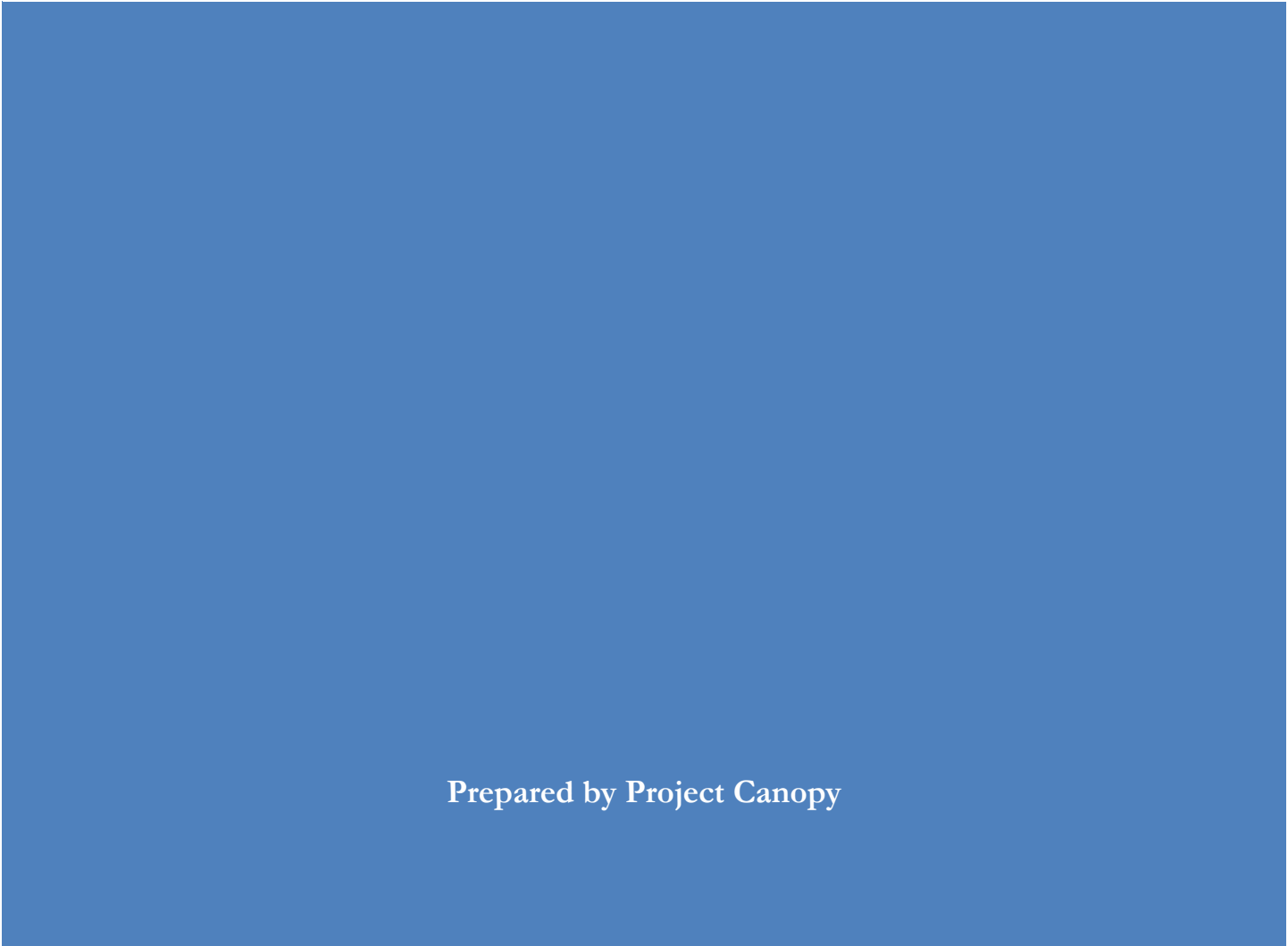
0 0.1 0.2 0.4 0.8 1.6 Miles

Projection:
Albers Conformal Conic Equal Area
Central Meridian: -96°
Latitude of Origin: 23°
1st Standard Parallel: 29°30' 00"
2nd Standard Parallel: 45°30' 00"
Datum: North American Datum of 1983

Image Data: National Land Cover Data 1992
30-meter resolution
Source: U.S. Geological Service (USGS)



Portland Urban Tree Canopy Assessment 2018



Prepared by Project Canopy

Acknowledgements

This report was made possible with funding from the USDA Forest Service.

About Project Canopy

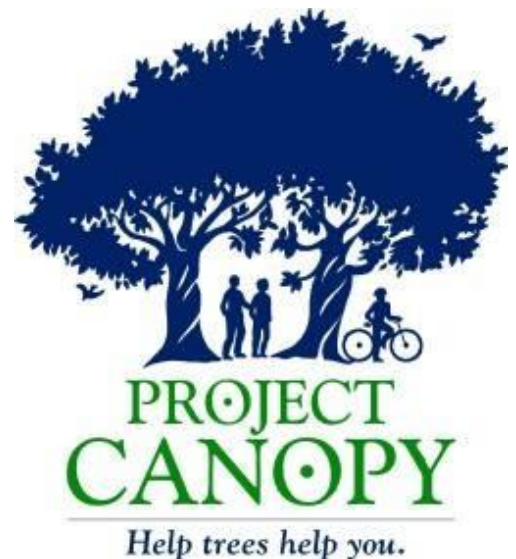
Project Canopy is Maine's urban and community forest program, a program of the Maine Forest Service under Maine's Department of Agriculture, Conservation and Forestry. It educates people about the benefits trees provide, and how trees make people's lives better. It connects people who have a particular expertise to people who need that expertise. It helps build bridges with town and city governments, and it knows how to communicate in a local, political environment. And just as important, Project Canopy helps people talk about success stories, so that they can find the motivation --- and inspiration --- that is crucial for developing creative, long-term community forestry programs.

The Maine Forest Service has an incredible reservoir of knowledge and expertise. The challenge for us is to get that knowledge to the people who can use it. Any long-term community forestry program needs commitment and understanding from many different corners. Project Canopy's role is to get people in different corners talking to each other, so that awareness about trees can grow by leaps and bounds. We do that by using down-to-earth strategies, and deploying technical experts into the field to lend hands-on assistance.

For example:

- Helping recruit and organize volunteers;
- Providing model community tree ordinances;
- Assisting in fund-raising efforts;
- Training tree stewards;
- Providing street tree inventory software;
- Helping communities appoint/elect a community tree warden;
- Linking communities to other Maine communities with successful tree programs;
- Providing lists of local foresters and arborists;
- Building bridges to national community tree organizations;
- Assisting in development of a long-term community tree plan;

And much more.



Summary

The goal of the Portland Urban Tree Canopy study was to accurately quantify the City's canopy cover and to identify areas where increased tree planting would be most beneficial. A complete and up-to-date inventory of street and public trees can serve as a baseline to determine maintenance needs, species diversity, locate available planting sites, and track individual tree conditions. With this information, Portland can update its management plan for its public trees that will serve its residents and businesses, as well as its visitors, now and into the future.

State and local government, City boards and committees, conservation agencies, and private landowners all play an important role in monitoring and maintaining urban forests. Public trees provide a number of benefits to a community, including reducing stormwater runoff, reducing air pollution, providing shade, sequestering carbon dioxide (CO₂), enhancing property values, and improving the aesthetics of the community. **The City's canopy cover of 23% provides an estimated \$874,390 in air quality benefits annually as well as an estimated long-term stored CO₂ value of \$15,610,923 to the residents and businesses of Portland.**

Forest Cover

- There is an existing urban tree canopy (UTC) cover of 23% on Portland's mainland.
- This aerial analysis was done using over 1000 data points within the approximately 18 sq. mi within mainland Portland city limits, encompassing both public and private land.
- Trees could be planted across an additional 27% of Portland's land surface. These "possible UTC" areas include low-lying vegetation or grassland, and some currently impervious surfaces (e.g. parking lots).
- The remaining 50% of Portland's land area is buildings, roads, bodies of water and other permanent features and is generally unsuited to UTC improvement.



Introduction

Project Description

Portland, Maine has earned its spot on numerous top ten lists in recent memory: most livable, happiest city, most learned, prettiest, most hipsters(?). A revitalized arts district, influx of James Beard Award winning chefs, and the increasing trend in telecommuting has helped to create a population boom in Maine's largest city. Interstates 95 and 295 as well as US Route 1 transect the city, shuttling commuters, students and cargo through rural stretches and over tidal flats, bypassing neighborhoods of historic homes, industrial facilities and sprawling commercial strips.

Portland most recently updated its Comprehensive Plan in 2017. Included in this plan are goals to identify and protect Portland's critical natural resources; support agricultural, forest, and scenic resources appropriate to our urban context; develop climate resilience through specific carbon reduction goals, comprehensive climate adaptation strategies, and protections for the city's most vulnerable infrastructure; make physical improvements and expansions to below- and above-grade infrastructure, including utilities, stormwater, transit, parking, and streets, to maintain and accommodate new growth; support reduction in impervious surfaces and implementation of green infrastructure in local codes, through incentives, and in infrastructure investments where appropriate; and increase the urban tree canopy by 15% above current canopy coverage to benefit air quality, local climate, CO2 absorption, and aesthetics.

Project Canopy partnered with the City and Oakhurst Dairy in the Spring of 2018 to conduct an Urban Tree Canopy (UTC) assessment of the City, thereby providing it with a component that will assist in achieving many of these goals. Utilizing this report to contribute to and update the current urban forest management plan will set Portland on a path to maintaining and increasing a healthy robust population of public trees that will pay it forward for decades to come. Incorporating a forest pest management plan as a component of this larger plan will establish a baseline and protocol to follow when invasive insects such as the emerald ash borer (EAB) and Asian longhorn beetle (ALB) threaten Portland's trees.

City Profile

The City of Portland, in Cumberland County, is located in Southern Maine, part of the Casco Bay Watershed. In 2017 the City's population reached over 67,000, making it the state's largest municipality. It is easily accessible from Interstate 95 and 295 and is less than a day's drive from Boston, New York and parts of Canada. Portland hosts the University of Southern Maine as well as headquarters for Oakhurst Dairy, WEX and TD Bank, and its burgeoning arts, food and tech scene, coupled with improvements to mass transit will ensure that its population will continue to rise.

Much of Portland lies along two high speed 2-4 lane interstates (95 and 295) and is a major thoroughfare for traffic headed north. Traffic can be very heavy and travel at speeds surpassing 80 mph. Land around these highways are controlled and maintained by Maine DOT and the Maine Turnpike Authority. US Rt 1, the Eastern Promenade and Baxter Blvd carry residents and tourists alike along the coast, while state routes 302, 22 and 25 allow commuters access to the downtown from the west. Small stands of mature eastern white pine and northern red oak dot the landscape along the outer reaches of the main roads, but much of the gateway streetscape is commercial or residential with limited tree canopy.

The “Forest City” boasts 721 acres of open space and public parks, which provide cooling respite from the surrounding hardscape as well as recreational opportunities. Thanks to a long lineage of City Arborists, much of Portland’s historic downtown is host to shaded streets lined with mature oaks and maples, hardy ginkgos and crabapples, and fragrant honey locust and lindens. In 2013, the city conducted a complete inventory of its 20,000 public trees which can be viewed at:

<http://portlandme.maps.arcgis.com/apps/webappviewer/index.html?id=8c1f329f45384c1080608df88501bcbe>

Portland has been recognized by the Arbor Day Foundation as a Tree City USA for 39 years. The Tree City USA program is designed to recognize those communities that effectively manage their public resources, and to encourage the implementation of community tree management based on four standards. These four standards provide structure for a community forestry program, require that program to demonstrate success based on the judgment of the state forester’s office, and provide for an awareness and appreciation of trees among the residents of the community.

Methodology

In the summer of 2018, Project Canopy staff completed a thorough UTC assessment of Portland, subdivided into 2 zones; “The Peninsula” - the land area bounded by Casco Bay, Back Bay, and 295, and NorthWest Portland, encompassing the remainder of the city north and west of 295. The inventoried land area was approximately 18 square miles, comprising all of mainland Portland.

Project Canopy staff utilized i-Tree Canopy to complete the UTC assessment to determine the total canopy cover as well as potential for additional planting. Over one thousand points of data in each zone were analyzed to extrapolate an estimated canopy cover with a margin of error less than 1.6%.

i-Tree is a free, easy-to-use software suite developed by the USDA Forest Service (www.itreetools.org). i-Tree Canopy uses aerial imagery, randomly generated map points and user-defined land cover types to produce an estimate of land cover of a

defined area - including tree canopy cover - that encompasses both public and private property. This tool also assigns dollar values to the benefits associated with the overall tree canopy cover. The aim of this type of assessment is to help citizens and decision-makers better understand the existing and potential tree canopy in their community.

Results

Based on Portland's i-Tree Canopy assessment, approximately 23% of the land area is currently occupied by tree canopy (See Appendix for results broken down by zone). Currently 50% of the total area is occupied by buildings and other non-plantable areas (parking lots, roads and bodies of water), however, some of this could be converted to tree canopy – such as tree islands and buffer strips in parking lots as well as green roofs. **Portland's canopy cover could potentially increase by more than 27% on open lands of low-lying vegetation and re-engineering of some parking lots.**

There are a multitude of spots in which substantial trees can be planted – particularly along Warren Ave, Forest Ave, Riverside St, Outer Congress St, and with modified tree pits and alternate methods of ice melt – throughout the Old Port. In 2012, the City of Portland adopted a Complete Streets policy and the 2017 Comprehensive plan lists the following as a goal: “Adopt sustainable land use and transportation policies that support connectivity, walkable neighborhoods, and multi-modal transportation”. Complete streets include trees and can easily be incorporated into existing or newly designed esplanades or sidewalk tree pits.

The City's canopy cover of 23% provides an estimated **\$874,390 in air quality benefits annually** as well as an estimated long-term stored CO₂ value of **\$15,610,923** to the residents and businesses of Portland.

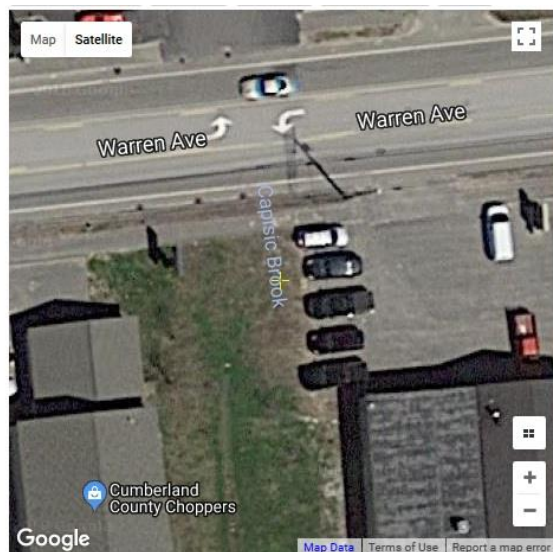


Figure 1. Examples of potential planting locations

Discussion and Recommendations

A UTC study is a quick and easy way to determine a municipality's urban canopy cover, discover new planting locations and quantify how its trees clean our air. Using a random sample method and based on assessing land cover types, i-Tree Canopy allowed us to measure the overall tree canopy cover within Portland capturing both private and public tree canopy totals. This study was able to put dollar values to:

- Air quality: **Trees improve air quality** by removing air pollutants through their leaves, altering emissions from building energy use, and by lowering air temperature.
- Stored carbon and sequestered carbon dioxide: Trees store carbon in their tissues as they accumulate biomass over time; an estimated 770 million tons of carbon, valued at \$14.3 billion, is stored in the public forests in the contiguous United States. Trees also mitigate greenhouse gas emissions by sequestering carbon dioxide through the process of photosynthesis.

As canopy increases, these benefits and savings will only increase. The trees of Portland also provide other services to the town in the following ways:

- Aesthetics: Trees can make an urban or suburban environment a more pleasant and satisfying place to live, work, and spend leisure time. In economic terms, presence of particularly mature shade trees can **significantly increase property value**. There are also **numerous health benefits** associated with the mere presence of trees. For example, hospital patients with window views of trees have been shown to recover faster than patients without such views.
- Energy use: Trees influence temperature and energy use by providing shade, transpiring moisture, and reducing wind speeds, **mitigating the need for heating of buildings in the winter and cooling in the summer**.
- Storm water run-off: Trees and soil **improve water quality and reduce costs** associated with stormwater treatment by retaining or slowing flow of rain and snow-melt.
- Benefits to retail businesses: **People shop more often, longer in well-landscaped areas** & will pay up to 12% more for parking and goods/services

We recommend that Portland's City Manager and Council members explore the results of the i-Tree assessment detailed in this report and:

- Use the information generated through i-Tree Canopy to promote the understanding of tree benefits and the investment in urban forest management and local stewardship.
- Use the i-Tree Canopy UTC and land cover assessment to inform and promote efforts towards an overall urban canopy cover of 40% (up from the current

23%). This might include outreach to private property owners to communicate tree benefits and encourage tree planting on their land.

- Update the inventory of public trees in Portland to include newly planted trees, and reassess the health and maintenance needs of established trees, thereby quantifying the value of all the benefits its trees provide.
- Work with Project Canopy staff to update the existing management plan based on the results of the inventory to prioritize goals and establish a timeline for the program.

Conclusion

Trees in our downtowns and commercial landscapes contribute to a thriving economy, promote our sense of community, protect our natural resources, preserve our cultural heritage, and increase our overall well-being. Well-planned and planted trees calm traffic, boost retail sales, reduce stormwater fees, provide cooling shade for parking lots and buildings, and create a visual gateway welcoming visitors to the destination of Portland. Larger shade trees can also provide heating and cooling savings to homes and businesses. This report is one component of an effort by the City of Portland to understand, manage, and steward its public tree population. The recommendations outlined in this report are based on Project Canopy staff's observations and data analysis combined with their experience and evaluation; they should be considered by Portland's leadership based on long-term vision and capacity.

Looking ahead, Portland should focus efforts on increasing the number of forestry staff, updating the full urban tree inventory, updating its management plan including a forest pest management component for the public tree population, planting new trees along the streetscapes, maintaining the quality of its mature trees in the neighborhoods and rural stretches, increasing its genera and species diversity, and increasing total canopy cover. With continued monitoring, regular maintenance, and an engaged and informed citizenry, the potential for a healthy, sustainable urban forest is attainable.



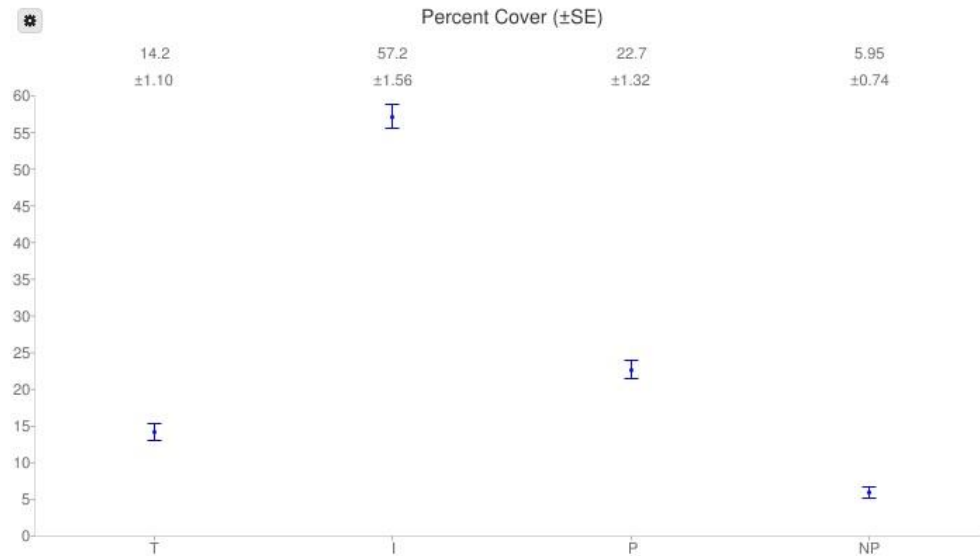
Appendix - Results by Zone

Peninsula:

i-Tree Canopy v6.1

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 7/05/18



Cover Class	Description	Abbr.	Points	% Cover
Tree	Tree, non-shrub	T	143	14.2 $\pm$ 1.10
Impervious	road, building	I	577	57.2 $\pm$ 1.56
Plantable area	Potential space for new trees	P	229	22.7 $\pm$ 1.32
Pervious non-plantable	water, ballfields, etc	NP	60	5.95 $\pm$ 0.74



Tree Benefit Estimates

Abbr.	Benefit Description	Value (USD)	$\pm$ SE	Amount	$\pm$ SE
CO	Carbon Monoxide removed annually	\$145.20	$\pm$ 11.25	218.54 lb	$\pm$ 16.93
NO2	Nitrogen Dioxide removed annually	\$259.53	$\pm$ 20.11	1.00 T	$\pm$ 0.08
O3	Ozone removed annually	\$12,455.99	$\pm$ 964.99	6.14 T	$\pm$ 0.48
PM2.5	Particulate Matter less than 2.5 microns removed annually	\$32,681.79	$\pm$ 2,531.93	725.70 lb	$\pm$ 56.22
SO2	Sulfur Dioxide removed annually	\$34.39	$\pm$ 2.66	687.62 lb	$\pm$ 53.27
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	\$13,086.95	$\pm$ 1,013.87	2.10 T	$\pm$ 0.16
CO2seq	Carbon Dioxide sequestered annually in trees	\$31,215.85	$\pm$ 2,418.36	885.42 T	$\pm$ 68.60
CO2stor	Carbon Dioxide stored in trees (Note: this benefit is not an annual rate)	\$1,086,198.56	$\pm$ 84,150.09	30,809.44 T	$\pm$ 2,386.87

i-Tree Canopy Annual Tree Benefit Estimates based on these values in lbs/acre/yr and \$/T/yr: CO 0.892 @ \$1,333.50 | NO2 8.175 @ \$259.97 | O3 50.093 @ \$2,036.17 | PM2.5 2.961 @ \$90,389.14 | SO2 2.805 @ \$100.37 | PM10* 17.096 @ \$6,268.44 | CO2seq 7,224.756 @ \$35.38 | CO2stor is a total biomass amount of 251,395.359 @ \$35.38

Note: Currency is in USD

Note: Standard errors of removal amounts and benefits were calculated based on standard errors of sampled and classified points.

About i-Tree Canopy

The concept and prototype of this program were developed by David J. Nowak, Jeffery T. Walton and Eric J. Greenfield (USDA Forest Service). The current version of this program was developed and adapted to i-Tree by David Ellingsworth, Mike Binkley, and Scott Maco (The Davey Tree Expert Company).

Limitations of i-Tree Canopy

The accuracy of the analysis depends upon the ability of the user to correctly classify each point into its correct class. As the number of points increase, the precision of the estimate will increase as the standard error of the estimate will decrease. If too few points are classified, the standard error will be too high to have any real certainty of the estimate.

A Cooperative Initiative Between:



Arbor Day Foundation

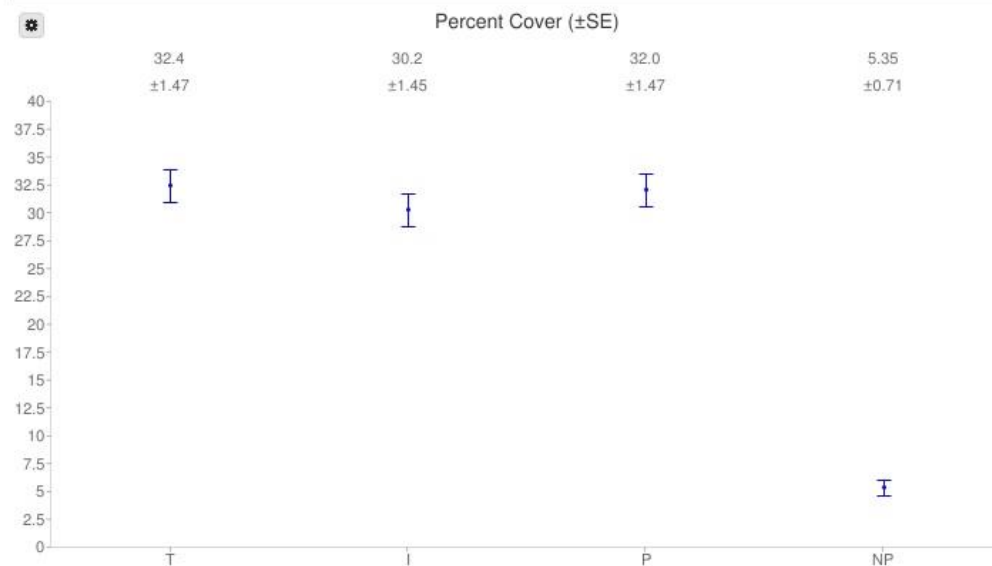


NW:

i-Tree Canopy_{v6.1}

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 7/06/18



Cover Class	Description	Abbr.	Points	% Cover
Tree	Tree, non-shrub	T	327	32.4 $\pm$ 1.47
Impervious	roof, road	I	305	30.2 $\pm$ 1.45
Plantable area	Potential area for new trees	P	323	32.0 $\pm$ 1.47
Permeable non-plantable	water, ballfields, etc.	NP	54	5.35 $\pm$ 0.71

Tree Benefit Estimates

Abbr.	Benefit Description	Value (USD)	$\pm$ SE	Amount	$\pm$ SE
CO	Carbon Monoxide removed annually	\$1,941.75	$\pm$ 88.28	1.46 T	$\pm$ 0.07
NO2	Nitrogen Dioxide removed annually	\$3,470.69	$\pm$ 157.79	13.40 T	$\pm$ 0.61
O3	Ozone removed annually	\$166,573.88	$\pm$ 7,573.20	82.10 T	$\pm$ 3.73
PM2.5	Particulate Matter less than 2.5 microns removed annually	\$437,053.32	$\pm$ 19,870.42	4.85 T	$\pm$ 0.22
SO2	Sulfur Dioxide removed annually	\$459.84	$\pm$ 20.91	4.60 T	$\pm$ 0.21
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	\$175,011.64	$\pm$ 7,956.82	28.02 T	$\pm$ 1.27
CO2seq	Carbon Dioxide sequestered annually in trees	\$417,449.29	$\pm$ 18,979.14	11,840.73 T	$\pm$ 538.33
CO2stor	Carbon Dioxide stored in trees (Note: this benefit is not an annual rate)	\$14,525,724.45	$\pm$ 660,405.27	412,014.45 T	$\pm$ 18,732.04

i-Tree Canopy Annual Tree Benefit Estimates based on these values in lbs/acre/yr and \$/T/yr: CO 0.892 @ \$1,333.50 | NO2 8.175 @ \$259.97 | O3 50.093 @ \$2,036.17 | PM2.5 2.961 @ \$90,389.14 | SO2 2.805 @ \$100.37 | PM10* 17.096 @ \$6,268.44 | CO2seq 7,224.756 @ \$35.38 | CO2stor is a total biomass amount of 251,395.359 @ \$35.38

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A Cooperative Initiative Between:



Total Benefits:

Benefit	Peninsula		NW		Total	
	value	amt (lb)	value	amt (lb)	value	amt (lb)
CO	\$145.20	218.54	\$1,941.75	2,920.00	\$2,086.95	3,138.54
NO2	\$259.53	2,000.00	\$3,470.69	26,800.00	\$3,730.22	28,800.00
O3	\$12,455.99	12,280.00	\$166,573.88	164,200.00	\$179,029.87	176,480.00
PM2.5	\$32,681.79	725.70	\$437,053.32	9,700.00	\$469,735.11	10,425.70
SO2	\$34.39	687.52	\$459.84	9,200.00	\$494.23	9,887.52
PM10	\$13,085.95	4,200.00	\$175,011.64	56,040.00	\$188,097.59	60,240.00
CO2Seq	\$31,215.85	1,770,840.00	\$417,449.29	23,681,460.00	\$31,215.85	25,452,300.00
CO2Store*	\$1,085,198.56	61,618,880.00	\$14,525,724.45	824,028,900.00	\$15,610,923.01	885,647,780.00
					\$874,389.82	25,741,271.76

*Total stored - Not an annual rate



CITY OF PORTLAND

Sustainability Office

Troy Moon

Sustainability Director

4/17/2021

Re: Short term actions from the One Climate Future Plan

During the last meeting, Committee members requested information about actions the Sustainability and Transportation Committee could take to implement short term strategies identified in the One Climate Future plan. This is follow-up to our broader discussion of strategies earlier this year. In order to provide focus, I've identified several items found within each of the "Six Big Moves" that encompass all of the OCF strategies. For reference, I will attach the large matrix we reviewed previously as well as the Committee's work plan. Hopefully this presentation will help the Committee identify which actions it wishes to consider this year.

Six Big Moves:

1. **Build Better Buildings:** The greenhouse gas inventory conducted as part of One Climate Future indicates that buildings account for about 60% of Portland's community wide greenhouse gas emissions. Consequently, the OCF plan presents many strategies designed to increase energy efficiency in the building sector. These include improving the energy code so new buildings are net zero by 2030, moving toward building energy performance standards, and developing building resilience standards so new construction will withstand the impacts of climate change while minimizing their impact on the environment. Short term strategies the Sustainability and Transportation Committee could work on to advance these goals include:
 - a. Monitor implementation of the voluntary energy code that the State will authorize later this year.
 - b. Continue to monitor implementation of the Energy Benchmarking ordinance.
 - c. Adopt energy reporting requirements for apartment rentals and home sales.
2. **Connect People to Opportunity, To Places:** One Climate Future echoes Plan 2030 by prioritizing development of walkable, complete neighborhoods where residents will find opportunities for work, recreation, and shopping in close proximity to their homes. Strategies include promoting better transit service, implementing the City's complete streets policy to better serve pedestrians and cyclists, and reworking land use policies to

encourage low carbon lifestyles. Short term strategies the Sustainability and Transportation Committee could work on to advance these goals include:

- a. Receive updates from Planning about the ReCode Phase 2 process
- b. Engage with Metro and GPCOG on ways to implement Transit Tomorrow and with Metro on their route changes.
- c. Review the City's sidewalk material policy and potentially make recommendations to promote safety and reduce cost to make improvements.

3. **Power Everything With Clean Electricity** -- Electrifying buildings and transportation creates the shortest path to a decarbonized economy. Short term strategies the Sustainability and Transportation Committee could work on to advance these goals include:

- a. Continue to support City efforts to acquire renewable energy.
- b. Examine and amend policies about electric vehicle charging in public and private spaces. This could include EV charging requirements for new and existing parking as well as policies to govern charging in the public right of way.

4. **Grow a Circular Economy** -- Moving away from a disposable economy to one that emphasizes waste reduction and reuse of natural resources has the potential to preserve the environment, reduce consumption based carbon emissions, and create economic opportunities for recycling and reuse industries. Short term strategies the Sustainability and Transportation Committee could work on to advance these goals include:

- a. Examine further regulation of single use plastics
- b. Monitor the impact of the compost pilot program that begins on Earth Day
- c. Examine existing policies governing residential and commercial recycling
- d. Consider a sustainable purchasing policy for City government

5. **Nourish Our Ecosystems, Which Nourish Us** -- Protecting natural resources from pollution while enhancing their ability to sequester carbon underpins One Climate Future's strategies around the environment. This builds on the City's efforts to improve stormwater infrastructure to reduce pollution in Casco Bay and efforts to end the use of toxic pesticides on our landscapes. Short term strategies the Sustainability and Transportation Committee could work on to advance these goals include:

- a. Review City plans to implement green infrastructure
- b. Review and improve policies to protect and expand the urban tree canopy
- c. Consider policies to improve soil requirements for site development
- d. Consider regulating the use of fertilizers on public and private property

6. **Build Collaborative Capacity to Build the Future** -- the One Climate Future Plan recognizes that meeting our climate goals depends on partnerships and collaboration with other levels of government, public sector partners, business and property owners, and residents. Short term strategies the Sustainability and Transportation Committee could work on to advance these goals include:

- a. Continue collaboration with partners such as MDOT, GPCOG, Metro, and others to promote a better transportation system for Portland.
- b. Continue to hold utilities accountable to provide data and resources residents and businesses need to manage their energy wisely
- c. Promote partnerships with employers to encourage transit and active transportation to reduce the use of single occupant vehicles.

One Climate Future IMPLEMENTATION MATRIX

The matrix summarizes key details for implementing the One Climate Future strategies, including timeline, funding mechanisms, and milestones for hitting our climate targets. • See **page 256** for a key for reading the implementation matrix. See **page 288** for a list of acronyms. •



Green Circle -- City Action
Orange Circle -- Advocacy for State / Federal Action

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
BE 1 Municipal Buildings and Energy Supply						
BE 1.1	Renewable Municipal Electricity Pursue power purchase agreements (PPAs) to reach 100% renewable energy for city facilities ahead of state renewable portfolio standard (RPS) schedule.	a. Complete bulk solar power purchases currently underway.	●			• All municipal electricity use met by renewable energy by 2032
		b. Engage in further contracts to meet remaining municipal demand.		●		
BE 1.2	Net-Zero Energy New City Buildings Pursue net-zero energy (NZE) buildings for new city government buildings through performance-based procurement.	a. Use performance-based procurement for next city building.	●			• All newly constructed or gut-rehabbed city buildings to be NZE or NZE-ready starting in 2026
		b. Adopt NZE-ready (and NZE where possible) for all new city buildings.		●	●	
BE 1.3	Energy Efficiency Retrofits for City Buildings Develop a strategic energy management plan (SEMP) for all city facilities and lead by example by pursuing deep energy retrofits and electrification for large existing city buildings.	a. Benchmark and conduct annual quality control review of use data for buildings.	●	●	●	• SEMPs commissioned by 2025 • Deep energy retrofits underway by 2026 • All retrofits to be NZE by 2030
		b. Commission SEMPs for all city buildings.	●			
		c. Conduct deep energy retrofits for city buildings.		●	●	
BE 1.4	Internal Carbon Pricing for Municipal Construction and Operations Create either a shadow carbon price for evaluating all city decisions, and/or an internal carbon charge paid to a central climate emergency fund.	a. Conduct carbon price feasibility assessment to set appropriate price.	●			• Municipal shadow carbon price or carbon charge implemented by 2026
		b. Implement shadow carbon price or internal carbon charge.		●		

Buildings & Energy

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
BE 2 New Construction Energy Efficiency and Decarbonization						
BE 2.1	Energy Stretch Code Advocate for an advanced energy stretch code with an optional net-zero energy compliance path, and adopt the stretch code once finalized.	a. Adopt the energy stretch code when finalized.				- Energy stretch code adopted immediately upon finalization - All new buildings to be net-zero energy starting in 2030
		b. Conduct city code review to identify conflicts with MUBEC/ stretch code.				
		c. Advocate for/adopt future stretch code with a pathway to NZE buildings.				
BE 2.2	Solar-Ready and EV-Ready Code Requirements Adopt or advocate for solar-ready and EV-ready requirements for new construction, followed by renewable energy generation building code requirements.	a. Adopt EV-ready and solar-ready requirements in land use code.				- EV-ready / solar-ready requirements to be implemented by 2028 - On-site solar requirements to be implemented by 2032
		b. Advocate for EV-ready and solar-ready requirements in MUBEC/stretch code.				
		c. Advocate for on-site solar requirements, or adopt via land use code.				
BE 2.3	Code Enforcement Ensure code compliance in all buildings through increased investment in robust code enforcement.	a. Hire (at least one) staff person or consultant to review energy models.				At least one staff person or consultant hired to review energy models by 2026
		b. Assess suitability / implement third-party code enforcement program.				
BE 2.4	Leadership and Education Partner with organizations in the building sector to develop and promote platforms for education and leadership in high-performance buildings.	a. Work with industry partners to develop /promote leadership/education platforms.				One or more platforms for high-performance building leadership and education launched by 2024
		b. Establish and award Mayor’s OCF recognition for climate leadership.				
BE 3 Existing Buildings Energy Efficiency and Decarbonization						
BE 3.1	Energy Benchmarking Expand Portland and South Portland’s energy benchmarking programs, and couple with outreach programs to turn energy savings opportunities into action.	a. Implement current benchmarking law.				80%+ compliance achieved within 2 years of utility data access challenges resolved (see BE 5.2), ideally by 2025
		b. Work with PUC/CMP to overcome limitations in data access.				
		c. Expand the program to citywide and/or to include smaller buildings.				
		d. Develop outreach and training program to further encourage retrofits.				
BE 3.2	Building Performance Standards Incorporate tune-up or performance standards into the Cities’ benchmarking programs for large buildings by 2025 to achieve carbon savings, and strengthen coordinated job-training programs to support building retrofits.	a. Conduct analysis and stakeholder process to identify GHG standards.				Performance standards identified within 2 years of fully implemented benchmarking (BE 3.1) with requirements adopted in following year
		b. Implement performance requirements for large existing buildings.				
		(+ actions to support job/skills training captured by other strategies - see text)				
BE 3.3	Energy Efficiency Spending Expand statewide and local energy efficiency spending; advocate for changes in Efficiency Maine spending that remove barriers for fuel switching.	a. Advocate for funding via Energy Efficiency Resource Standard (etc.).				By 2025, Efficiency Maine spending is equivalent to 5% of total electric sales and 2% of residential natural gas sales
		b. Advocate for fuel-neutral metrics to support beneficial electrification.				
		c. Advocate for the creation of a Maine State Green Bank.				
BE 3.4	Renewable Heating and Cooling Launch program to shift single family homes and larger multifamily and commercial buildings from fuel oil directly to all-electric heating and cooling.	a. Launch electrification incentive program, following review and research.				- Electrification incentive program launched by 2023 - Oil tanks to be code compliant or decommissioned by 2028
		b. Adopt legislation to require code compliant tanks (or decommissions).				

Buildings & Energy

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
BE 3.5	Bulk Buy Programs Launch bulk buy programs for solar power and heat pumps, paired with electric vehicles as appropriate.	a. Launch bulk buy program.				• Bulk buy program launched by 2023
BE 3.6	Solar Proliferation Strategy Continue to enhance the attractiveness of solar through a solar proliferation strategy, as well as offering financial and/or structural incentives.	a. Reduce permit times and fees for solar installations.				• Solar proliferation strategy launched by 2023 • 50 MW of solar installed in the cities by 2030 and 245 MW of solar installed by 2050
		b. Launch solar proliferation strategy.				
BE 3.7	Energy Efficient Rental Housing Require minimum energy efficiency standards for residential rental properties to decrease energy use, increase thermal comfort, and reduce energy costs paid by renters.	a. Require Maine Energy Disclosure Statement in rental registration.				• Determination of whether to proceed with a minimum energy efficiency rental standards program by 2026
		b. Assess costs/benefits of minimum energy efficiency standards.				
		c. Implement minimum energy efficiency rental standards program.				
BE 4 Industrial Energy Efficiency and Decarbonization						
BE 4.1	Industrial Energy Efficiency Spending Advocate for expanded energy efficiency incentives for large industrial users.	a. Advocate for increased industry efficiency spending.				• Automatic industrial opt-out provision removed by 2028
BE 4.2	Industrial Efficiency and Decarbonization Study Advocate for a statewide study on energy efficiency and decarbonization opportunities in the industrial sector to better target industrial combined heat and power, heat recovery, and renewable fuel oil or biogas.	a. Advocate for industrial efficiency study, led by Efficiency Maine.				• Industrial efficiency and decarbonization study completed by 2025
		b. Use study findings for targeted promotion to industrial partners.				
		c. Ensure custom industrial programs are working on heat recovery applications.				
BE 5 Clean and Renewable Energy Infrastructure and Regulatory Transformation						
BE 5.1	Renewable Portfolio Standard and Community-Scale Purchasing Continue to advocate for full, timely, and cost-effective implementation of Maine’s renewable portfolio standard; in case it becomes necessary, advocate for municipal authority to bulk procure renewable power.	a. Advocate for full, timely, and cost-effective implementation of the RPS.				• Electricity to be 80% renewable by 2030 and 100% renewable by 2050
		b. Advocate for creation of a Maine Energy Generation Authority.				
BE 5.2	Utility Data Access Reform Reform data access by pursuing legislation that would require utilities to disclose data with building owners and municipalities.	a. Advocate for improved access to utility data.				• Access to whole building and citywide data by 2024 • Access to automated data connections by 2024
BE 5.3	Utility Regulatory Reform to Support Electrification Advocate for regulatory reforms to support state-wide electrification and the integration of distributed energy resources (DER).	a. Advocate for utility regulatory reforms to support DER.				• Continue to build on 2020 legislative initiatives

Buildings & Energy

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
BE 5.4	Renewable District Energy Systems Identify opportunities and encourage the development of fully electric low temperature thermal district energy systems for new and existing developments and campuses.	a. Advocate for regulatory updates to enable use of microgrids.	●			● All new development over 50,000 square feet to evaluate district energy/microgrids starting within one year of microgrid enabling legislation
		b. Work with existing campuses to explore microgrids / district energy.		●	●	
		c. Adjust zoning to encourage microgrids / renewable district energy.		●		
BE 5.5	Electrical Transmission and Distribution Improve the efficiency and capacity of transmission and distribution networks to improve electricity supply to Portland and South Portland.	a. Undertake hosting capacity study with regional partners.	●			● Hosting capacity study launched by 2025
		b. Land bank and zone for expanded energy infrastructure.		●		
		c. Update full electrification study, accounting for efficiency.		●		
BE 5.6	Natural Gas Phase-Out Advocate for a state-level ban on new intrastate natural gas pipelines and any state support for interstate gas pipelines, and advocate for allowing local jurisdictions to limit new and expanded natural gas connections.	a. Advocate for / support a just plan for transitioning to clean heating.	●	●	●	● A just plan for clean heating developed by 2025 ● Statewide restrictions on new interstate and intrastate gas pipelines in place by 2030, along with defined timeframes for phasing out natural gas
		b. Advocate for ban on new interstate / intrastate natural gas pipelines.	●			
		c. Advocate for state support in repurposing fossil fuel infrastructure.		●		
		d. Investigate legal authority / ban natural gas hookups in new construction.		●		
BE 5.7	Carbon Pricing Continue to advocate for carbon pricing at national, regional, and statewide scales.	a. Work with state partners to advance statewide carbon fee.			●	● Price on carbon as soon as feasible at national, regional, or statewide scale

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
WR 1 Residential and Commercial Waste						
WR 1.1	Save-As-You-Throw Expand a save-as-you-throw system to South Portland.	a. Conduct community educational campaign on SAYT (South Portland).				● Implement SAYT program in South Portland by 2026
		b. Implement SAYT model in South Portland (South Portland).				
WR 1.2	Single-Stream Recycling Mandate recycling for commercial and multifamily buildings.	a. Increase recycling outreach/education in collaboration with ecomaine.				● Require recycling in commercial and multifamily residential buildings by 2026
		b. Adopt ordinance requiring commercial and multifamily recycling.				
WR 1.3	Food Waste Reduction and Organics Recycling Expand programs to divert food waste and increase organics recycling rates to ensure that excess food is better used to nourish people, animals, industries, and soils.	a. Advocate for statewide mandatory organics recycling.				● Reduce food waste in trash streams 70% by 2040
		b. Implement mandatory commercial/institutional organics recycling citywide.				
		c. Move toward curbside collection of residential food waste.				
WR 1.4	Single-Use Plastics Ban select single-use plastics and identify partnerships to reduce plastic waste.	a. Advocate for statewide restrictions on single-use plastics.				● Eliminate single-use plastics in the cities to the fullest extent practicable by 2026
		b. Advocate for extended producer responsibility bill in the state.				
		c. Partner with retailers and food establishments to reduce plastic use.				
WR 1.5	Circular Sharing Economy Foster a circular sharing economy.	a. Strengthen or expand community spaces for resource sharing.				● Ongoing efforts to establish new spaces, programs, or initiatives in each city that support resource sharing, re-use, or repair
		b. Support re-use, rental, and repair businesses, fairs, and workshops.				
		(+ numerous actions captured by other strategies - see text)				
WR 2 Construction, Industrial, and Municipal Waste						
WR 2.1	Construction and Demolition Waste Reduce construction and demolition waste through targeted re-use initiatives.	a. Advocate for state policy and expansion of reuse/recycling facilities.				● Adopt C&D waste reduction targets and ordinance by 2035
		b. Draft report assessing baseline waste reduction/reuse practices and goals.				
		c. Engage construction sector on development of ordinance and training.				
		d. Adopt C&D waste ordinance.				
WR 2.2	Industrial Waste Work with state and regional partners to encourage “by-product synergy” with industrial waste streams.	a. Work with state partners to explore online materials marketplace.				● Regional materials marketplace launched by 2035

Waste Reduction

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
WR 2.3	Wastewater Emissions Investigate options for reducing emissions of wastewater treatment with anaerobic digestion.	a. Commission engineering feasibility study for anaerobic digestion w/partners.			●	● Engineering feasibility study commissioned by 2032
WR 2.4	Sustainable Purchasing Policy Adopt a sustainable purchasing policy for municipal procurement.	a. Adopt sustainable purchasing policy and guide for city procurement.	●			● Sustainable purchasing policy adopted by 2024

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
TLU 1 Mode Shift and Land Use						
TLU 1.1	Public Transit Networks Support efforts to “Make Transit Easier,” “Expand Local Connections,” and “Introduce Rapid Transit” in alignment with the Transit Tomorrow vision for the PACTS region.	a. Advocate for/implement coordinated measures between transit agencies.	●	●		● Roll-out of coordinated measures (portal, schedules, etc.) by 2025 ● All specified upgrades to transit stops implemented by 2028 ● METRO and SPBS achieve carbon neutrality by 2040
		b. Advocate for increases in state funding for multimodal transportation.	●	●		
		c. Improve safety and accessibility of transit stops.		●		
		d. Invest in roadway design advantages for buses along transit routes.		●		
		(+ numerous actions captured by other strategies - see text)				
TLU 1.2	Inclusive Transit-Oriented Development Strengthen the Cities’ transit-oriented development nodes to support travel by walking, biking, and public transportation.	a. Assess potential locations for TOD development (South Portland).	●			● Policy pathways for strengthening TOD nodes outlined in comprehensive plan by 2024 (South Portland) ● New/updated TOD TIF districts implemented by 2026
		b. Conduct assessment of barriers and mechanisms to promote desired transit.	●			
		c. Update comprehensive, land use, capital improvement plans w/ TOD policy.	●			
		d. Examine capital investments and land use policy changes to facilitate TOD.		●		
TLU 1.3	Bike Accessibility Make biking easier through a complete network of bikeways and through building an inclusive biking culture.	a. Develop and implement plans for complete bikeway networks.	●	●	●	● Bikeway network plan completed and implementation begun by 2026 ● 5% of all trips completed by bike by 2040
		b. Launch initiative for advancing an inclusive biking culture.	●			
		c. Expand bike parking and storage facilities.		●		
		d. Reevaluate potential for a bikeshare program.		●		
TLU 1.4	Complete Streets Create safer and more accessible travel for people of all ages and abilities by all modes of transportation by adopting “Vision Zero” for the PACTS region and continuing to expand complete streets.	a. Draft “Vision Zero” policy statement and set metrics for tracking progress.	●			● Complete streets design manual produced by 2025
		b. Develop complete streets design manual; align city ordinances and plans.	●			
		c. Launch “adopt-a-sidewalk” program.		●		
		d. Complete the build-out of complete streets along the Smart Corridor.			●	
TLU 1.5	Employer Transit Partnerships Partner with PACTS, GO MAINE, and large public and private employers in the cities to continue to promote more efficient or zero-emissions commuting and to establish a transportation management association (TMA) for the Greater Portland region.	a. Convene working group for development of a Greater Portland TMA.	●			● Working Group for TMA convened by 2024 ● TDM plans updated/ adopted by 2026
		b. Produce transportation demand management (TDM) toolkit.	●			
		c. Assess methods to reduce SOV trips made by municipal staff.	●			
		d. Update (Portland) or adopt (South Portland) TDM plan ordinance.		●		
TLU 1.6	Parking Shift existing incentives that continue to lead to more parking demand and supply to instead facilitate and strengthen multimodal transportation options.	a. Pilot adjustments to parking pricing and demand-based pricing.	●			● Zoning ordinances revised with new parking requirements by 2028
		b. Revise zoning to provide flexibility for parking minimums / explore maximums.		●		

Transportation & Land Use

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
TLU 1.7	Land Use for a Smaller Carbon Footprint Plan for future growth in our cities by committing to land use principles for a smaller carbon footprint, codified in the Cities’ comprehensive plans, zoning, and subdivision ordinances.	a. Encourage infill through proactive redevelopment.				● Housing stock meets workforce demand within the cities by 2035: Anyone working in the cities can live within the cities by 2035
		b. Revise land use code to “amplify homes near jobs.”				
		c. Revise land use code to “collocate transportation and density.”				
		d. Revise land use code to “create livable street networks.”				
		(+ actions to protect open space captured by other strategies - see text)				
TLU 2 Vehicle Electrification						
TLU 2.1	Electric Vehicle Charging Infrastructure Expand electric vehicle (EV) charging infrastructure in public and private parking through public investments in chargers, updates to city land use codes, and EV-ready requirements in the state building code.	a. Integrate EV charger requirements in land use and building codes.				● 20% of spaces in new garages required to have EV chargers (per land use code) by 2026 ● 5% of parking spaces in all lots and garages in the cities have level 2 EV chargers by 2030
		b. Work with commercial entities to expand public chargers.				
		c. Collaborate on regional efforts to build out charging networks.				
		d. Work with PUC to reform electricity rate structures (see TLU 3.3).				
TLU 2.2	Electric Vehicle Incentives Offer excise tax exemptions for electric vehicles (EVs), and advocate for additional state EV incentives.	a. Widely promote existing rebates (e.g., through Efficiency Maine).				● 30% of new light duty vehicle sales are electric vehicles by 2030; 60% by 2040; 100% by 2050
		b. Collaborate with Efficiency Maine and dealerships to promote EV ownership.				
TLU 2.3	Electric Public Transit Bus Fleets Work with Greater Portland METRO and the South Portland Bus Service to transition all bus fleets to battery-electric vehicles (BEV) by 2040.	a. Pursue Low-No Grant funding for BEV in next bus purchase (SPBS).				● All new METRO and SPBS bus purchases are electric starting in 2025 ● All-electric METRO and SPBS fleets by 2040
		b. Work with transit providers on capital transition program for bus fleets.				
TLU 2.4	Electric and Alternative-Fuel Municipal Fleets Develop an electric and alternative-fuel vehicle capital transition program for municipal and school vehicles.	a. Create capital transition program for light-duty vehicles and school buses.				● All new school bus purchases are electric by 2025 ● All new light-duty vehicle purchases are electric by 2028 ● Zero-carbon municipal fleets by 2040
		b. Create parallel transition program for small motor equipment.				
		c. Pursue alternatives for medium/heavy-duty vehicles when viable.				
TLU 2.5	Electric Shared Vehicles and Vehicles for Hire Expand the use of shared electric vehicles, promote electric vehicle use by taxis and other vehicle-for-hire companies, and set a requirement that by 2030 all rideshare vehicles must be electric vehicles.	a. Assess options for incentivizing EV use among taxis and hired vehicles.				● All TNC rideshare vehicles are electric vehicles by 2030
		b. Reassess national market for feasibility of electric car sharing fleets by 2026.				
		c. Mandate that all TNC rideshare vehicles must be EVs by 2030.				
TLU 2.6	Autonomous Vehicles Implement changes to curb and parking designs to incentivize shared autonomous vehicles, and advocate for state requirements that any autonomous vehicles must be electric and shared.	a. Continue to adapt safe/efficient curb and parking standards, considering AVs.				● State requirement that all AVs be electric in place by 2030
		b. Advocate at the state level for AV permits to be limited to electric AVs.				
		c. Work with state to ensure protections for pedestrian use of roadways.				

Transportation & Land Use

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
TLU 3 Transportation Infrastructure						
TLU 3.1	Idling Reductions Reduce vehicle idling through anti-idling policies, vehicle technology, and improved intersection design.	a. Adopt anti-idling technology and policies for public vehicles.	●			● Anti-idling policies to be updated (P) or adopted (SP) and enforced by 2025
		b. Adopt and enforce anti-idling zones and policies for private vehicles.	●	●	●	
		c. Consider anti-idling co-benefits in intersection design.	●	●	●	
TLU 3.2	Freight Transit Partnerships Partner with large stakeholders in the freight sector to encourage development of a Sustainable Freight Action Plan.	a. Work with PACTS to develop a Sustainable Freight Action Agenda.			●	● Regional Sustainable Freight Action Agenda drafted by 2032 ● Statewide Sustainable Freight Action Plan developed by 2035
		b. Advocate for development of a Maine Sustainable Freight Action Plan.			●	
TLU 3.3	Ferry Service Work with Casco Bay Lines to transition its fleet to hybrid-electric ferries, and to consider a ferry route connection between Portland and South Portland.	a. Support Casco Bay Lines in transitioning to electric ferries.	●	●	●	● 60% of ferries (three ferries, based on the current fleet of five) run on all electric power by 2035
		b. Assess feasibility of ferry service between Portland and South Portland.	●	●		
TLU 3.4	Shore Power Commission an engineering study for shore power hookups to allow and eventually require docked ships to connect to electrical service.	a. Commission engineering study of shore power requirements (Portland).			●	● Shore power for full ferry fleet installed by 2040 ● Shore power for cruise ships installed by 2040
		b. Work with Casco Bay Lines to install shore power for ferries (Portland).			●	
		c. Work with PUC, CMP, Port to install shore power for cruise ships (Portland).			●	
TLU 3.5	Jetport Reduce greenhouse gas emissions from the Portland International Jetport through benchmarking and tracking, and through decarbonizing ground vehicles.	a. Decarbonize ground support vehicles (Jetport).	●	●		● “Neutrality” achieved by 2030 under the Airport Carbon Accreditation framework
		b. Consider employing Airport Carbon Accreditation framework (Jetport).	●	●		
		c. Increase knowledge transfer with municipal staff (Portland/Jetport).	●	●		
		d. Improve energy efficiency of older portion of the terminal (Jetport).		●		

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
CR 1 Resilient Buildings and Neighborhoods						
CR 1.1	Resilient New Development Integrate resilience standards and targets into Portland and South Portland’s land use code to minimize flood risk and promote resilient buildings and neighborhoods citywide.	a. Work with partners to model combined storm surge and SLR for overlays.				● No new incompatible, vulnerable, or hazardous uses built in areas of highest flood risk by 2026 (with adoption of resilience overlays)
		b. Review and update land use codes to reflect resilience objectives.				
		c. Develop and use resilience zoning overlay to guide new construction.				
CR 1.2	Resilient Existing Buildings Build knowledge, tools, and resources on climate risks and adaptation options for buildings and property.	a. Prepare for securing federal funding for mitigation and/or recovery.				● All city residents have access to tools to assess future flood risk to property by 2026 ● Maine real estate flood risk disclosure required by 2026
		b. Participate in FEMA Community Rating System.				
		c. Launch suite of tools for resilient building retrofits.				
		d. Advocate that the State adopt flood risk disclosure requirements.				
CR 1.3	Resilient Open Space Planning Establish open space climate resilience goals and protocols for monitoring progress towards those goals in Portland and South Portland’s open space planning.	a. Expand Land Bank (P) / Open Space (SP) priorities to include resilience goals.				● Benchmark ecosystem and resilience metrics for open spaces and establish performance goals by 2028
		b. Set goals and measure change for stormwater and floodwater infiltration.				
		c. Set goals and measure change for carbon sequestration and storage.				
		d. Set goals and measure change for heat mitigation.				
		e. Set goals and measure change for biodiversity and ecological connectivity.				
CR 2 Strong and Healthy Communities						
CR 2.1	Housing Affordability and Resilience Continue to expand access to resilient and energy efficient affordable housing, contributing to diverse and inclusive communities.	a. Launch area-wide housing supply studies in both cities.				● Portland to increase housing units affordable to lower and middle income households by 10% by 2025 (from 2019 baseline) ● South Portland to establish affordable housing goal through comprehensive plan or standalone process
		b. Review zoning codes and re-assess development fees to remove constraints.				
		c. Enable options for renewable energy financing for affordable housing.				
		d. Advocate for changes to state financing requirements.				
		e. Use repositioning to retrofit housing for resilience and energy efficiency.				
		f. Assess displacement risk and anti-displacement strategies.				
		g. Work with community partners to lead “We are P/SP” storytelling initiative.				
CR 2.2	High Heat Mitigation Expand the “cooling capacity” of Portland and South Portland.	a. Preserve and expand protected open space, public parks, and tree cover.				● All residents live within a half mile of a cooling center by 2035 ● All residents live within a half mile of a park or open space by 2035
		b. Increase access to and awareness of places to cool off.				
		c. Revise zoning to increase cooling features in new construction (see CR 1.1).				
		d. Develop toolkit w/partners on retrofits to keep homes cooler (see CR 1.2).				

Climate Resilience

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
CR 2.3	Resilient Food Systems Cultivate healthy, regenerative, and just food systems.	a. Expand public land access for food production.				● Establish small grants for food system innovators by 2025 ● Secure funding to commission foodshed assessment by 2028 ● Expand access to community agriculture to all neighborhoods to meet demand
		b. Establish/improve policies to connect producers/harvesters and consumers.				
		c. Provide grants/business development for food system resilience/innovation.				
		d. Conduct a foodshed assessment.				
		e. Partner to support job training and reskilling in the food production sector.				
CR 2.4	Transportation Access Continue to prioritize decision-making processes and transit investments that advance equity in our cities.	a. Collaborate with GPCOG to launch next phase of CTLP program.				● Address first round of proposals made by Community Transportation Leaders by 2026
		b. Invite Community Leaders to participate in OCF planning initiatives.				
		c. Review and implement proposed solutions from CTLP first round.				
CR 2.5	Neighborhood Resources Support and strengthen our existing community resources.	a. Establish a small grants program to support initiatives that build resilience.				● Award the first round of community organizations or neighborhood groups with resilience grants by 2025
		b. Launch Sustainable Neighborhood programs.				
		c. Work with residents/community orgs. to resource neighborhood hubs.				
CR 3 Resilient Local Economy						
CR 3.1	Resilient Working Waterfronts Create an ongoing platform for collaborative planning to ensure that Portland and South Portland’s port and waterfronts can respond, adapt, and thrive with new climate stresses.	a. Develop PPP to access grant funding for waterfront resilience collaboration.				● Grant funding and partnerships secured for resilient working waterfronts project by 2026
		b. Convene port/waterfront industries for coordinated resilience planning.				
		(+ actions on revising land use code captured by other strategies - see text)				
CR 3.2	Workforce for a Resilient Economy Attract, mentor, and build the skills of our cities’ workers to partake in quality jobs that help build a diverse, resilient, and regenerative economy.	a. Work with partners to strengthen job training and employment pipelines.				● Targets set through collaboration for net increases in individuals trained in specific sustainability/resilience fields
CR 3.3	Climate-Ready Industries and Innovation Build the capacity of the businesses and industries in our cities to bounce back, adapt, and innovate.	a. Support business resilience via economic development programs.				● Revise land use policies to reduce barriers to traditional and emerging marine related industries by 2026
		b. Identify barriers and opportunities for the growth of a blue economy.				
		c. Drive innovation/growth in climate-ready industries via PPPs and pilots.				
CR 4 Resilient Infrastructure Systems						
CR 4.1	Stormwater Systems Use modeling and flood data to upgrade the cities’ stormwater and sewer systems to handle future climate scenarios.	a. Fill gaps in geospatial data for the sewer and stormwater system.				● Full geospatial data set completed for sewer and stormwater system by 2024 ● Hydrologic / hydraulic drainage model completed by 2028
		b. Implement comprehensive asset management system.				
		c. Build out protocol for consistently tracking flood incidences.				
		d. Commission hydrologic/hydraulic drainage model.				

Climate Resilience

Action			Timeline			
#	Action Description	Action Subcomponents	By 2025	2026-2030	2031-2050	Milestones
CR 4.2	Green Infrastructure Expand the use of green infrastructure systems to capture and infiltrate the first inch of stormwater in any storm.	a. Evaluate/adjust ordinances to increase infiltration in new development.				● 5% of impervious surfaces in the cities converted to green infrastructure by 2035; 10% by 2040; and 15% by 2050
		b. Explore revising (P)/adopting (SP) stormwater service charges and credits.				
		c. Evaluate/implement initiatives and tools to expand GI on private property.				
		d. Collaborate with regional partners to build education/awareness of GI.				
CR 4.3	Energy Systems Build Portland and South Portland’s energy resilience.	a. Advocate for site-specific climate risk assessments of critical infrastructure.				● Development of Resilient Power Plan by 2024 ● All new development over 50,000 square feet to evaluate district energy/microgrids within one year of microgrid enabling legislation
		b. Advocate for evaluation of climate risks in future infrastructure planning.				
		c. Develop and implement a Resilient Power Plan.				
		(+ actions on energy resilience captured by other strategies - see text)				
CR 4.4	Transportation Systems Adopt a risk-based transportation asset management approach.	a. Build out robust geospatial data to support modeling and predictions.				● Climate hazards and resilience indicators applied to all asset management decision-making by 2028
		b. Model asset lifespans with consideration for climate hazards.				
		c. Establish resilience design guidelines and performance indicators.				
		d. Develop phased investment approach, influenced by climate risk.				
CR 5 Ecosystem Resilience						
CR 5.1	Ecosystem Adaptive Management Strengthen ecosystem resilience through enhancing connectivity, biodiversity, and healthy habitat.	a. Monitor and manage pests and invasives.				● Fertilizer ordinance adopted by 2022 ● No net coastal wetland loss by 2035 ● Establish biodiversity and connectivity targets by 2028
		b. Mitigate coastal acidification by reducing stormwater pollution.				
		c. Develop biodiversity and connectivity goals and guidelines (aligned with CR 1.3).				
		d. Facilitate tidal wetland migration.				
		e. Curtail coastal erosion with living shorelines.				
CR 5.2	Soil Health Build back the health of our soils for ecological vitality, water infiltration, and carbon sequestration.	a. Adopt post-construction soil health standards.				● Post-construction soil health standards adopted for new construction by 2025 ● “100 Resilient Lawns” achieved across both cities by 2028
		b. Pilot and monitor healthy soil land management practices.				
		c. Share results and launch campaign to improve soil on private lawns.				

Sustainability & Transportation Committee

Councilor Belinda Ray, District 1, Chair

Councilor Spencer Thibodeau, District 2

Councilor Andrew Zarro, District 4

Sustainability & Transportation 2021 Workplan – A Living Document

MEETING DATE	PRIMARY FOCUSES	WORKPLAN ITEMS Council Goal(s)* addressed in parenthesis
Jan 14	Review of OCF Short-Term Action Items; 2021 Workplan	1) Review One Climate Future (OCF) short-term actions and identify steps the Committee can take in 2021 (4, 5) 2) Review Green New Deal citizen referendum to identify congruence/conflict with OCF and recommend changes as necessary (5) 3) Engage with the ReCode process to advance land use goals identified in OCF (4, 5) 4) Explore the creation of a Sustainability Fund to ensure the City has money available for implementation of the OCF plan (3,4,5) 5) Review “shovel ready” and “shovel worthy” City plans to help prioritize COP infrastructure projects for potential future funding (3, 5) 6) Review and recommend amendments to the sidewalk material policy (3,5) 7) Engage with Metro, NNEPRA, GPCOG, et al. to explore ways to improve transit service (2, 5) 8) Develop an energy disclosure ordinance to require landlords to disclose energy costs to tenants prior to leasing and property owners to disclose energy costs for homes and buildings prior to sale (2, 5) 9) Build on the Heritage Tree ordinance to expand the City’s urban tree canopy, particularly in the parts of the City with the fewest trees (4, 5) 10) Look at carry over items from 2020 (e.g., single use plastics, fertilizer ordinance) and determine whether they remain priorities at this time (5)
Feb 17	Metro Peninsula Loop Reboot update; COP Infrastructure Priorities; Green New Deal analysis	
Mar 17	Transit Tomorrow Vision; OCF 2021 potential committee actions	
Apr 21	Topic TBD	
May 19	Topic TBD	
Jun 16	Topic TBD	
Jul 21	Topic TBD	
Aug 18	Topic TBD	
Sep 15	Topic TBD	
Oct 20	Topic TBD	
Nov 17	Topic TBD	

* Council Goals listed on reverse

Items on which the committee anticipates getting updates during the year:

- Implementation of the One Climate Future plan and sustainability related initiatives/legislation.
- METRO Peninsula Loop Reboot
- Transit Tomorrow Vision
- Portland Transportation Center plans for potential relocation
- PMAC Annual Report and recommendations regarding fertilizers/analysis of SoPo fertilizer ban
- MLK Memorial – Subcommittee results and next steps
- Tree Canopy status, comparison with previous years
- South Portland-Portland Ferry Service
- Ocean Avenue Landfill groundwater/well tests
- Carbon Pricing – Federal Legislation
- GPCOG Project Development Fund

Council Goals for 2020/2021 Council Year (initially set on December 13, 2020)

- 1) Continue effort to reduce homelessness, assist people experiencing homelessness through city, regional and state efforts.
- 2) Increase access to rental and home ownership that is safe, affordable, and accessible, with emphasis on elders and covid-related market conditions.
- 3) Address the high property tax burden in Portland by passing an affordable combined school/city budget and pursuing other revenue sources, with economic stability and small business survival as key considerations.
- 4) Make human dignity a top priority by establishing policies, practices and partnerships within the city and at the state and regional levels.
 - Encourage widespread adoption of anti-racism, anti-bias, anti-discrimination practices.
 - Build awareness about the importance of mental health for people of all ages and support community agency efforts to reach those in need of services.
 - Work collaboratively to establish harm reduction strategies for those experiencing substance use disorder.
- 5) Showcase and advance the climate change and sustainability efforts underway in the city.
 - Increase public transit infrastructure and capacity in the city.