

CITY OF PORTLAND, MAINE
Standing Committee on Sustainability and Transportation
Councilor Andrew Zarro, District 4, Chair
Councilor Roberto Rodriguez, At-Large
Councilor Victoria Pelletier, District 2

Agenda
January 11, 2023
5:30 PM

The Sustainability and Transportation Committee will conduct this meeting remotely via Zoom. Allow your computer to install the free Zoom app to get the best meeting experience. If you are not able to attend live either in person or via Zoom, a recording will be available in the [Agenda Center](#) following the meeting. For public comment via Zoom, you will need to use the "raise your hand" feature. To raise your hand via the telephone, please hit *9. You will be unmuted by the host when it is time for public comment. To join the meeting, please use the link below:

<https://portlandmaine-gov.zoom.us/j/89825246230?pwd=aEdvOEdWcGx0M0RoajRQM3pIUctkQT09>

1. Review and approve minutes from November 30, 2022
 - a. Minutes from November 30, 2022
2. Sustainability Program Updates
 - a. Sustainability Updates for January 2022
 - b. One Climate Future Progress Update
3. Presentation and Discussion
 - a. Rail Use Advisory Committee Discussion and Policy Recommendation
Presenters: Mike Murray and Jeremiah Bartlett
Public Comment Will Be Taken
 - b. Committee Goal Setting for 2023
Presenters: Vaishali Mamgain, Rebecca Nisetich, Committee Members, Troy Moon'
Public Comment Will Be Taken
4. Other Business
 - a. Committee Discussion Regarding Remote or Hybrid Meetings
No Public Comment Will Be Taken

CITY OF PORTLAND, MAINE
Committee on Sustainability and Transportation
Councilor Andrew Zarro (D4), Chair
Councilor Victoria Pelletier (D2)
Councilor Roberto Rodríguez (At-Large)

Draft Minutes November 30, 2022

Members Present: Councilor Zarro, Councilor Pelletier

Staff Present: Troy Moon, Erin Ferrell

Guests: William Needelman (Waterfront Coordinator), Stephanie Watson (Governor's Energy Office), Matthew Burns (Maine Port Authority)

Meeting called to order.

October 12 Minutes

Councilor Zarro makes a motion to approve the October 12th meeting minutes. Councilor Pelletier moves the motion. October 12th minutes passed unanimously, 2-0.

Sustainability Update

Presented by Troy Moon and Erin Ferrell

The Sustainability Office wants to thank the Council again for appropriating \$200,000 in American Rescue Plan Act funds to support Electrify Everything! Programming. The Sustainability Office plans to launch Electrify Everything! 2.0 in early 2023. The Office was awarded a Maine DEP Waste Diversion grant to expand access to our food scrap recycling drop sites. The Office also hosted a Pumpkin Cycle community event to prevent pumpkins and jack-o-lanterns to be recycled and not wasted. The event was a great success with 3,000 lbs of pumpkins collected and recycled. The first Level 2 EVGo chargers were installed at East End School and construction of the Level 2 charging hub in the Deering Oaks parking lot is nearly completed. We hope both will be operating before the end of the year. Troy spoke at the Maine Digital Government Summit in Augusta to discuss how the City has employed “smart city” technologies including LED street lights and adaptive traffic control systems to help achieve our sustainability goals. The office also hosted a webinar with speakers from Efficiency Maine and Evergreen Home Performance to discuss home energy efficiency improvements that residents can make to save money on heating costs. The One Climate Future team hosted two Coffee and Climate events, one focused on Community Solar with guests from ReVision Energy and Maine Community Solar.

Committee Comment on Sustainability Update

Councilor Pelletier asked how many pumpkins were collected.

We do not have a count for how many it was, but it was a great success. Councilor Pelletier shares her congratulations to the Committee acknowledging that the Committee is so busy and has some really great work happening.

Councilor Zarro adds that the appropriation of \$200,000 in Recovery Act funds to support Electrify Everything! Programming is a great achievement for the Committee in amplifying the Sustainability Office's One Climate Future efforts and for making equitable progress for low- and moderate-income Portland-ers.

Presentation regarding Portland's potential role in offshore wind development

Presented by William Needelman (Waterfront Coordinator), Stephanie Watson (Governor's Energy Office), Matthew Burns (Maine Port Authority)

The S&T Committee received presentations from two State of Maine offices working on the development of offshore wind energy generation in the Gulf of Maine. Stephanie Watson serves as the Maine Offshore Wind Program Manager in the Governor's Energy Office. Matthew Burns is the Executive Director of the Maine Port Authority. Ms. Watson and Mr. Burns have both been assisting with the leadership of the Maine Offshore Wind Roadmap program.

The presentation included a report by Ms. Watson on the Maine Offshore Wind Roadmap process, followed by a description of findings by Mr. Burns related to ports and infrastructure development. City staff requests that the Committee receive a briefing on the status of wind energy in the Gulf of Maine to understand potential opportunities for the Port of Portland, including City infrastructure, in support of offshore blue energy development.

Comment on the Presentations

Bill Needelman notes that the industry has reached out to the City of Portland and we do have capacity at the Maine State Pier and the Ocean Terminal, although it may be well in advance of investments may be made, it's not too early to start talking about this and planning for it so that we all can be prepared as decision-makers. Matthew Burns agrees and thinks it may be wise to explore what facilities may be developable to support the offshore wind industry.

Councilor Zarro asks if the construction/support plan for offshore wind in Maine will fall within the timeframe of the needs of Maine Won't Wait / One Climate Future. Is it an ambitious timeline?

Matthew Burns responds that it all depends on the ports, and if there is no port facility constructed to support a Gulf of Maine offshore wind development then it will happen competitively out of state.

Bill Needelman adds that our partners at UMaine or the Roux Institute want to be in Portland. Access to the Jetport, highway system, workforce, and education all makes us very attractive for support and compatibility for a port facility.

Annual report on Energy Benchmarking

Presented by Troy Moon and Erin Ferrell

The City of Portland adopted an energy benchmarking ordinance that requires covered properties to annually report water and energy usage. Energy Benchmarking helps us encourage the efficient use of energy and water and help to reduce greenhouse gas emissions. By taking inventory of energy usage each year and comparing buildings of similar size and use,

owners can identify underperforming areas that can be improved. All owners of buildings 20,000 sq ft or more in the City of Portland received a notice letter in January 2022. As the ordinance states, multi-tenant buildings 20,000 square feet or more are required to report energy and water use metrics once the utility is able to provide whole-building energy usage data in a convenient online format. Central Maine Power is currently working on this platform, with hopes to launch by the end of 2022. The Sustainability Office anticipates that multi-tenant buildings will be required to report starting in 2024.

The Sustainability Office received 191 Energy and Water Use Benchmarking Reports for calendar year 2021. There were 50 municipal buildings and 141 commercial/residential buildings reported. Of the commercial/residential buildings, 96 reported enough energy and water data to designate Building Energy Use Intensity for the buildings.

There are around 600 buildings covered under the ordinance in the City of Portland. The Office has had difficulty reaching the building owners of these buildings as Assessor's Office information is the basis for benchmarking contact. In early 2022, the Office requested contact information for building owners and those who would be responsible for completing the reporting required. The Office received contact information for 311 covered buildings (52%).

Comment on the Presentation

Councilor Zarro asks about the typical/major response of property owners. *Erin describes conversations about the goals of the ordinance (reduce energy usage, save money).*

Councilor Zarro asks if there is a way the municipality can implement mandatory documentation or onboarding anytime there is a sale of a commercial building? *Troy is interested in broaching this conversation with property-owners and their energy managers.* Is there an enforcement mechanism for building owners who choose not to report? *There is a fine that can be implemented (\$20 / day after the ordinance due date) but it would be difficult to enforce at the moment. This information is included in the letter received by property owners.*

Councilor Pellitier celebrates the dramatic increase in the number of annual reports filed and appreciation for the time management of onboarding these property owners.

Report on Electrify Everything! pilot program

Presented by Troy Moon

In March 2022, the Sustainability Office launched Electrify Everything! with the goal of assisting in at least 75 electrification projects to help Portland residents decarbonize their homes and lower their energy costs. The Office chose ReVision Energy as a partner, through the RFP process, that would be able to provide a discount to Electrify Everything! participants to help decrease the cost of installing rooftop solar, heat pumps, water heater heat pumps, and electric vehicle chargers.

114 Portland residents expressed interest in the program by signing up on the Sustainability Office website or by going directly to ReVision Energy. There were a total of 105 projects

confirmed for Electrify Everything! participants. Projects included: 33 air source heat pumps, 2 battery storage units, 10 water heater heat pumps, 5 home electric vehicle charging stations, 33 community solar farm leases, and 22 solar (pv) installations. The Office asked residents who signed up for the program to provide feedback about their experience and also requested feedback from 206 efficiency contractor companies in the Greater Portland area to learn about barriers they may face in acquiring customers and/or completing installations. Their feedback will inform our efforts in promoting beneficial electrification throughout the community and will help us design future versions of Electrify Everything!

Comment on the Presentation

Councilor Zarro and Councilor Pelletier share excitement for this program in this past year and for next year with ARPA funds.

Review committee accomplishments during 2022

Presenters: Committee members and City staff

Troy Moon highlights that the Committee received a grant to hire a consultant to help develop Climate Resilience Overlay Zoning and a grant to support climate action work in neighborhoods. The Committee spent a considerable amount of time working on efforts to promote beneficial electrification, which is a core strategy to achieve the climate goals described in One Climate Future. This includes programs for homeowners, engagement related to the electrification of cruise ship berths, and engagement with Central Maine Power / Avangrid to emphasize the City's commitment to beneficial electrification of buildings and transportation. The Committee met with representatives from GPCOG to review and discuss GPCOG's Rapid Transit Study, plans by the Maine Turnpike Authority to create a highway spur between South Portland and Gorham, and regional transportation plans adopted by GPCOG/PACTS. The Committee adopted amendments to Chapter 34 of the City Code to generally prohibit the use of synthetic fertilizers and restrict the use of organic fertilizers. Also, the Sustainability Office now has three full-time employees - which has doubled its capacity.

Discussion of items to recommend for committee to consider in 2023

Presenters: Committee members and City staff

Councilor Zarro mentions items including the State/High Street assessment (progress on the Complete Streets plan), Franklin Street restructuring, car-sharing, Electrify Everything!, the purple trash bag program, parking, etc. The Committee is working to set the agenda to share to the public.

Other Business

Councilor Zarro asks for any other questions or comments and thanks the guests for joining us.

Motion to Adjournment

Moved by Councilor Pelletier, friendly adjournment.

Meeting Adjourned



CITY OF PORTLAND

Sustainability Office

Troy Moon

Sustainability Director

Sustainability Updates

January 11, 2023

Energy

Staff sent reminder letters to property owners who are required to submit energy and water usage to the Sustainability Office as part of the Energy Benchmarking and Disclosure ordinance. We have been working to improve our customer contact database to streamline communication with the stakeholders and hope to document the correct contact person for each property. Benchmarking reports are due by May 1.

Central Maine Power has made significant progress on their updated customer data platform. We have recruited a local commercial property manager to help test drive it and look forward to its implementation. This will allow buildings with more than one tenant to participate in the Benchmarking program.

We are working to develop the Electrify Everything 2.0 program that the Council appropriated \$200,000 to fund. We are currently meeting with stakeholders including bike shops, weatherization contractors, and heat pump installers.

Waste Reduction

The Parks Department helped us install additional signs at the community compost sites that are translated into Arabic, Portuguese, French, and Spanish. We have space for two additional languages and anticipate adding signs in Vietnamese and Somali.

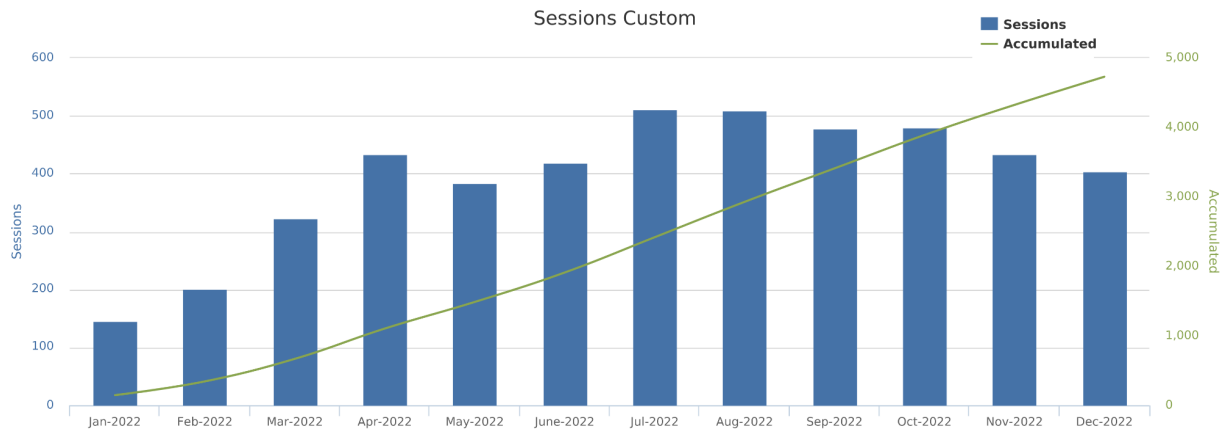
We received a Waste Diversion Grant from the Maine DEP to create additional outreach materials and signage to promote the Neighborhood Compost Drop Offs and to translate them into six languages. The Council will be asked to accept the grant and appropriate the funds on January 18.



Electric Vehicles

The charging infrastructure for the neighborhood charging hubs has been installed at East End Community School and Deering Oaks Parking Lot. We are waiting for CMP to energize them but do not have an estimated time for that to happen. Much of the infrastructure work has been done for the DC Fast Charging hub at the corner of Spring St. and High St. and we anticipate it being operational this spring.

The City's Chargepoint chargers received substantial use during 2022, with 4,726 charging sessions between January 1, 2022 and December 31, 2022. These sessions offset about 42 tons of CO₂.



Demand grew over the course of the year and we are seeing strong usage continue into the fall and winter months. These Chargepoint units are in front of City Hall, in the Spring/High parking lot, at Payson Park, and at the Portland Jetport.

Land Care

Reports from pesticide applicators are coming in. They are due by February 1. We are working on educational opportunities for both the public and landcare professionals so they are aware of changes to the ordinance that restrict the use of fertilizers. We have updated information on the website to include information about those changes. [Landcare | Portland, ME - Official Website](#)

Community Support

The Sustainability Office was awarded a \$17,000 grant to establish a Sustainable Neighborhood program that will allow us to promote sustainable actions in neighborhoods. If the Council accepts and appropriates the funds on January 18, we will launch the program in the spring as a pilot program in two neighborhoods. We would anticipate adding additional neighborhoods the following year as we incorporate what we learn in year one.

Education and Outreach

The Sustainability Office Instagram now has over 2,000 followers. We would love to have more so we can better spread the word about our work.

The One Climate Future newsletter now has 921 subscribers. You can sign up at www.oneclimatefuture.org

The One Climate Future team hosted a Coffee and Climate event on December 9 and went over the One Climate Future Progress report, which we will be presenting to the Committee as well.

We've collaborated with our colleagues in the South Portland Sustainability Office to schedule all of the Coffee and Climate events for 2023. This year we will have some in-person events at interesting locations including the Portland Museum of Art and a local brewery. See the calendar in the packet.

Climate and Coffee events are community conversations that happen on the 2nd Friday of the month at 9 AM. We record sessions with guest speakers and post them on www.oneclimatefuture.org, along with other information about our work. You can also follow us on social media. Instagram @sustainableportlandme / Twitter @SustainPortME / FB @SustainablePortlandME

Coffee & Climate 2023 Series

January 13	Climate Ready Casco Bay <i>w/ GMRI & GPCOG</i>
February 10	Being Bird Friendly and Bird Safe <i>w/ Maine Audubon and Portland Society for Architecture</i>
March 10	Complete Streets <i>w/ Bike Coalition of Maine</i>
April 14	Sharing Economy & Electric Tools <i>w/ Brie Berry, economic & environmental anthropologist</i>
May 12	Aquaculture (in-person event) <i>w/ Atlantic Seafarms and Lady Shuckers</i>
June 9	Sustainability & the Arts (in-person event) <i>w/ Portland Museum of Art</i>
July 14	Plastics & Producer Responsibility (in-person event) <i>TBD</i>
August 11	Breweries & Sustainability (in-person event) <i>w/ NEEFC and local brewers</i>
September 8	Navigating State & Federal Incentives <i>w/ Efficiency Maine and Maine Governor's Energy Office</i>
October 13	How to Talk About Sustainability <i>w/ Our Climate Common</i>
November 17	Environmental Justice <i>w/ Color of Climate</i>
December 8	2023 Recap <i>w/ One Climate Future team</i>

Coffee & Climate is a monthly event exploring sustainability and climate topics with the help of guest experts.
For more information, visit oneclimatefuture.org/



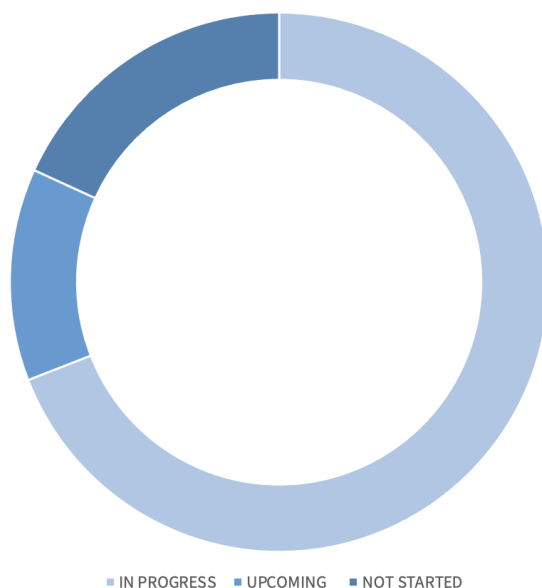
City of Portland 2022 Annual Report

January 2021 – December 2022

The City's joint climate action and adaptation plan with South Portland, One Climate Future, was adopted in November 2020. It contains 68 strategies with 186 action items for reducing greenhouse gas emissions 80% by 2050 and building the resilience of our neighborhoods, infrastructure, and ecosystems to the impacts of climate change.

Only two years in, we have made significant progress toward implementing our plan.

Of the 56 near-term strategies, the chart below illustrates the 38 in progress, 7 upcoming, and 10 not started.



TOP 5 UPDATES FROM 2022

- 1) The Electrify Everything! program launched and achieved the goal of assisting at least 100 electrification projects. The program received \$200k in ARPA grant funds to further incentivize the residential sector with zero-carbon efficiency upgrades in 2023. (BE 3.3 and 3.4 and 3.5 and TLU 2.2)
- 2) Portland's community food scrap recycling program expanded to a total of 8 collection sites Program also received a grant to expand access by translating educational materials and signs into more languages and expanding outreach avenues. (WR 1.3)
- 3) The Bike Share program launched with 200 bikes at over 30 stations across the City, encouraging sustainable and affordable transportation for residents. Significant progress in developing land use code amendments (under ReCode Phase II) related to complete neighborhoods, transit-oriented development, and mitigating the impacts of climate change. (TLU 1.2 and 1.3)
- 4) New EV charging stations were installed in the Elm Street Garage and the Spring Street Garage, along with three neighborhood charging hubs (with 10 new L2 chargers) and DC fast charging stations were installed across the City. Thirty-four more L2 chargers are to be installed. (TLU 2.1)
- 5) The City passed restrictions on synthetic fertilizers to take into effect spring 2023, under the Landcare Ordinance. Also, Portland Parks, Recreation, and Facilities Department converted all fall leaf operations to entirely mulching in place and achieved 100% organic management of City athletic fields and parks. (CR 5.1 and 5.2)

BE 1. MUNICIPAL BUILDINGS AND ENERGY SUPPLY

In Progress

- 1.1 Renewable Municipal Electricity – Have installed solar and signed offtake agreements with offsite projects that produce about 75% of the City's annual electricity consumption.
- 1.2 Net-Zero Energy New City Buildings - Preparing a Master Energy Services Agreement and will be selecting a partner to develop energy efficiency & renewable energy projects in City Facilities.
- 1.3 Energy Efficiency Retrofits for City Buildings – see 1.2 (same)

Not started

1.4 Internal Carbon Pricing for Municipal Construction and Operations (mid-term strategy)

BE 2. NEW CONSTRUCTION ENERGY EFFICIENCY AND DECARBONIZATION

In Progress

- 2.1 Energy Stretch Code – Adopted Maine Energy Stretch Code (IECC 2021); learning and leading on building inspections.
- 2.2 Solar-Ready and EV-Ready Code Requirements – Updated the technical design manual to require EV charging for all new parking with 10 or more spaces (2021). Further improving EV standards in technical manual, enforcing EV requirements, and reducing barriers to the installation of solar on private property.
- 2.4 Leadership and Education – Conducted feedback sessions with efficiency leaders in the local building sector (2021). Continue working with local organizations (like Portland Society for Architecture and Passivhaus) to encourage energy-efficient building practices.

Upcoming

- 2.2 Solar-Ready and EV-Ready Code Requirements cont'd - Update the solar ordinance and update the Historic Preservation design standards.

Not started

- 2.3 Code Enforcement (mid-term strategy) - Add capacity in Building and Inspections to review energy models for advanced energy codes.

BE 3. EXISTING BUILDINGS ENERGY EFFICIENCY AND DECARBONIZATION

In Progress

- 3.1 Energy Benchmarking – Launched a benchmarking program to improve compliance with the Benchmarking Ordinance for single-occupant buildings over 20,000 square feet, multi-tenant buildings in 2024.
- 3.3 Energy Efficiency Spending – Advocated for several state-level bills to increase funding for energy efficiency and renewable energy such as C-PACE and Energy accelerator (2021). Waiting for model C-PACE ordinance.
- 3.4 Renewable Heating and Cooling – The Electrify Everything! program launched and achieved the goal of assisting at least 100 electrification projects (2022). Electrify Everything! Phase 2 granted \$200k in ARPA funds to further incentivize the residential sector with zero-carbon efficiency upgrades in 2023.

3.5 Bulk Buy Program– see 3.4 (same)

3.6 Solar Proliferation – (same)

Upcoming

3.1 Energy Benchmarking cont'd - Expand benchmarking program to include multi-tenant buildings and achieve a goal of 80% compliance rate.

3.3 Energy Efficiency Spending cont'd - Continue to advocate at the state level. Access grant and infrastructure funding to support energy efficiency and decarbonization efforts.

Not started

3.2 Building Performance Standards (mid-term strategy)

3.7 Energy Efficient Rental Housing

BE 4. INDUSTRIAL ENERGY EFFICIENCY AND DECARBONIZATION

Upcoming

4.1 Industrial Energy Efficiency Spending – Upcoming, will meet with key industries, Efficiency Maine.

Not started

4.2 Industrial Energy and Decarbonization Study

BE 5. CLEAN AND RENEWABLE ENERGY INFRASTRUCTURE AND REGULATORY TRANSFORMATION

In Progress

5.1 Renewable Portfolio Standard and Community-Scale Purchasing – Continues to be on track.

5.2 Utility Data Access Reform – Advocated for legislation mandating that the PUC to issue an RFI for the development of a statewide aggregated data platform (2021). Data platform to launch in December 2022.

5.3 Utility Regulatory Reform to Support Electrification – Participating in statewide discussions about rate design, DER strategy, and innovation; advocating for legislation to support reforms.

5.5 Electrical Transmission and Distribution – Working with CMP and Efficiency Maine to develop a hosting capacity study, and CMP/PUC to increase the capacity of the local grid; participating in NWA (non-wires alternative) docket at PUC.

Not started

5.4 Renewable District Energy Systems

5.6 Natural Gas Phase-Out

5.7 Carbon Pricing (long-term)

WR 1. RESIDENTIAL AND COMMERCIAL WASTE

In Progress

1.1 Pay-As-You-Throw – This is a South Portland-specific strategy.

1.3 Food Waste Reduction and Organics Recycling – Launched City’s first public food waste recycling program with 5 collection sites (2021). Increased program use allowed for the addition of 3 more drop-off sites. Program also received a grant to expand access by translating educational materials and signs into more languages and expanding outreach avenues (2022).

1.4 Single-Use Plastics - Rolled out Phase II of the Straw Ban and created a retailer FAQ page with best practices (2021).

Upcoming

1.2 Single-Stream Recycling – Upcoming, continue improving education and enforcement of existing multi-family recycling ordinance.

1.3 Food Waste Reduction and Organics Recycling cont’d - Developing strategies to expand access to and awareness of program; exploring options for citywide curbside food waste collection.

1.4 Single-Use Plastics cont’d – Working with retailers to reduce single-use plastics.

Not started

1.5 Circular Sharing Economy

WR 2. CONSTRUCTION, INDUSTRIAL, AND MUNICIPAL WASTE

Upcoming

2.4 Sustainable Purchasing Policy – Upcoming, will adopt a sustainable purchasing policy for the City.

Not started

2.1 Construction and New Demolition Waste (mid-term strategy)

2.2 Industrial Waste (long-term strategy)

2.3 Wastewater Emissions (long-term strategy)

TLU 1. MODE SHIFT AND LAND USE

In Progress

- 1.1 Public Transit Networks - Participating in PACTS's Transit Together and Rapid Flow Transit Study Work.
- 1.2 Complete Neighborhoods and Transit-Oriented Development - Identified land use policy opportunities around TOD through ReCode Phase II land use code evaluation (2021). Developing land use code amendments related to TOD under ReCode Phase II.
- 1.3 Bike Accessibility – Initiated concept design for Baxter-Bates-Veranda St Bikeway/East Coast Greenway; Conducted analysis of potential higher quality bike lane locations (2021). Completed pilot year of Portland Bike Share program, during which over 2000 distinct users took 4860 rides (2022). Bike lanes added on Stevens Avenue and Elm Street. Better Bikeway Initiative public engagement identified bikeway priorities and bikeway treatment design preferences, currently testing design treatments. Completed West Commercial Street Pathway addition, Bayside Trail construction from Elm Street to Brattle Street, North Deering Byway construction of Milliken Brook byway segment, and PTC Neighborhood Byway construction. Design began for Union Branch and Libbytown Pathways from State Street to the Fore River Parkway Trail. Submitted application to PACTS Connect 2045 Long Range Plan for inclusion of an additional 8.0 miles of shared-use pathways and an additional 8.0 miles of separated bike lanes.
- 1.4 Complete Streets – Enhanced project scoping for Libbytown Safety and Accessibility Project, and for Brighton Ave Multimodal Project; Began construction of Somerset St Reconnection/Bayside Trail Extension (2021). Began preliminary design for Smart Corridor for Morrill's Corner and Forest Ave. PACTS began its regional Vision Zero project with a public outreach and goal-setting phase (2022).
- 1.5 Employer Transit Partnerships - Began buildout of Transit Demand Management (TDM) resources website for use by TDM coordinators (2021). Modifying standards for TDM plans in the technical manual; continuing efforts to streamline the TDM plan development and reporting process.
- 1.6 Parking - Eliminated parking requirements for significant portions of the city through ReCode Phase I; added EV parking requirements to the city's Technical Manual (2021).
- 1.7 Land Use for a Smaller Carbon Footprint – Streamlined Accessory Dwelling Units (ADU) Policy; initiated work on ReCode Phase II to incorporate OCF's land use goals as a foundational element (2021). Participated in NYU's Housing Solutions Lab Peer Cities Network as a means of expanding access to resources on housing policy.

Upcoming

- 1.1 Public Transit Networks cont'd – Advocate for increased state funding for multimodal projects.

- 1.2 Complete Neighborhoods and Transit-Oriented Development cont'd – Advocate for increased state funding for multimodal projects and adopt ReCode.
- 1.3 Bike Accessibility cont'd – Install more bike infrastructure; public engagement and design/implementation of higher quality bike lane analysis.

TLU 2. VEHICLE ELECTRIFICATION

In Progress

- 2.1 Electric Vehicle Charging Infrastructure – Added 15 networked L2 EV chargers (2021). Worked with a private partner to install three neighborhood charging hubs (2022). First four DC fast chargers to be online in the spring of 2023.
- 2.2 Electric Vehicle Incentives – Continuing to promote EV rebates and provide rebates for installing home EV chargers through Electrify Everything!
- 2.4 Electric and Alternative-Fuel Municipal Fleets – Leased four new EV Hyundai Konas at zero cost; initiated City Hall EV carshare program (2021).

Upcoming

- 2.1 Electric Vehicle Charging Infrastructure cont'd - Access federal and state infrastructure funding for more EV chargers and vehicles. Identify locations for the other 34 L2 and begin deployment after March 2023 – have remaining L2s installed by March 2024.
- 2.4 Electric and Alternative-Fuel Municipal Fleets cont'd - Working to adopt city fleet electrification policy.

Not started

- 2.3 Electric Public Transit Bus Fleets
- 2.5 Electric Shared Vehicles and Vehicles for Hire
- 2.6 Autonomous Vehicles (mid-term strategy)

TLU 3. TRANSPORTATION INFRASTRUCTURE

In Progress

- 3.1 Idling Reductions – Implemented smart traffic signals that reduce idling through RapidFlow technology (2021).
- 3.3 Ferry Service - Casco Bay Lines designed and approved hybrid ferry (2021).
- 3.5 Jetport (mid-term strategy) - Portland International Jetport reports the installation of ten EV charging stations in the public parking garage and purchasing 2 EV vehicles for the Jetport's Operations and Administration (2022).

Upcoming

3.1 Idling Reductions cont'd - Explore potential for expansion of smart traffic signals.

3.4 Shore Power - Scoping study in progress.

3.5 Jetport (mid-term strategy) - Upcoming improvements include the addition of 2 plug-in hybrid vehicles, launching the first phase of airside apron electric ground service equipment charging stations to allow airline partners to begin the transition to electric aircraft pushback and baggage handling tugs, and the installation of up to five passenger boarding bridges equipped with preconditioned air that will provide preconditioned air to dramatically reduce fuel and energy use.

Not started

3.2 Freight Transit Partnerships (long-term strategy)

CR 1. RESILIENT BUILDINGS AND NEIGHBORHOODS

In Progress

1.1 Resilient New Development – Completed dynamic coastal flood inundation modeling for Portland in collaboration with U.S. Army Corps of Engineers, FEMA, NOAA, USDA, USGS, and Maine ACFD (2021). Consultant hired to complete Portland's climate resilience overlay zoning project (2022).

Upcoming

1.2 Resilient Existing Buildings - Working on historic preservation design standard amendments.

Not started

1.3 Resilient Open Space Planning

CR 2. STRONG AND HEALTHY COMMUNITIES

In Progress

2.1 Housing Affordability and Resilience - State adopted LD1656 "An Act To Promote Energy-Efficient Affordable Housing" which requires construction projects funded by the Maine State Housing Authority to meet certain energy performance standards, including full electrification of the systems used for heating, cooling, domestic hot water, and cooking

(2022). Continued efforts to make energy-efficiency upgrades and renewable energy options more affordable for all residents.

2.2 High Heat Mitigation – Allocated \$250k to expand tree canopy in Bayside neighborhood (2021). Planning for tree planting in progress.

2.5 Neighborhood Resources - Applied for and was awarded Community Resilience Partnership's Community Resilience Grant funding for a neighborhood resilience program to launch in 2023.

Not started

2.3 Resilient Food Systems

2.4 Transportation Access (mid-term strategy)

CR 3. RESILIENT LOCAL ECONOMY

In Progress

3.1 Resilient Working Waterfronts - Ongoing conversation with waterfront stakeholders to promote and develop marine uses.

3.3 Climate-Ready Industries and Innovation – Economic Development supported small businesses through a COVID hardship grant; Covid-related street closures made permanent to facilitate outdoor dining (2021).

Upcoming

3.1 Resilient Working Waterfronts cont'd - Waterfront Master Plan through Comp Plan Update.

3.2 Workforce for a Resilient Economy - Identify opportunities from infrastructure funding to promote clean energy jobs.

CR 4. RESILIENT INFRASTRUCTURE SYSTEMS

In Progress

4.1 Stormwater Systems - Improvement of mapping/data for sewer and storm systems; improvements to current hydrodynamic modeling; improvements to SLR and Storm Surge Inundation mapping to understand parcel and City-wide infrastructure impacts.

Upcoming

4.1 Stormwater Systems ctn'd - Additional Hydrodynamic/Operational flood models and forecasts will be developed and created to support updates to climate scenarios, sea level rise, and storm surge inundation mapping, as well as geospatial data and stormwater and sewer system upgrades.

Not started

4.2 Green Infrastructure (long-term strategy)

4.3 Energy Systems (mid-term strategy)

4.4 Transportation Systems (mid-term strategy)

CR 5. ECOSYSTEM RESILIENCE

In Progress

5.1 Ecosystem Adaptive Management – Adopted amendments to the Pesticide Ordinance to include restrictions on synthetic fertilizers to take into effect spring 2023 under the Landcare Ordinance (2022). Continued monitoring for invasive pests.

5.2 Soil Health – Adopted soil standards for new development (2021). Portland Parks, Recreation, and Facilities Department converted all fall leaf operations to entirely mulching in place (2022).



One Climate Future Updates from 2022

Office of Sustainability

January 11, 2023



The Sustainability Office grew!



Troy Moon
Sustainability Director



Erin Ferrell
Sustainability Associate

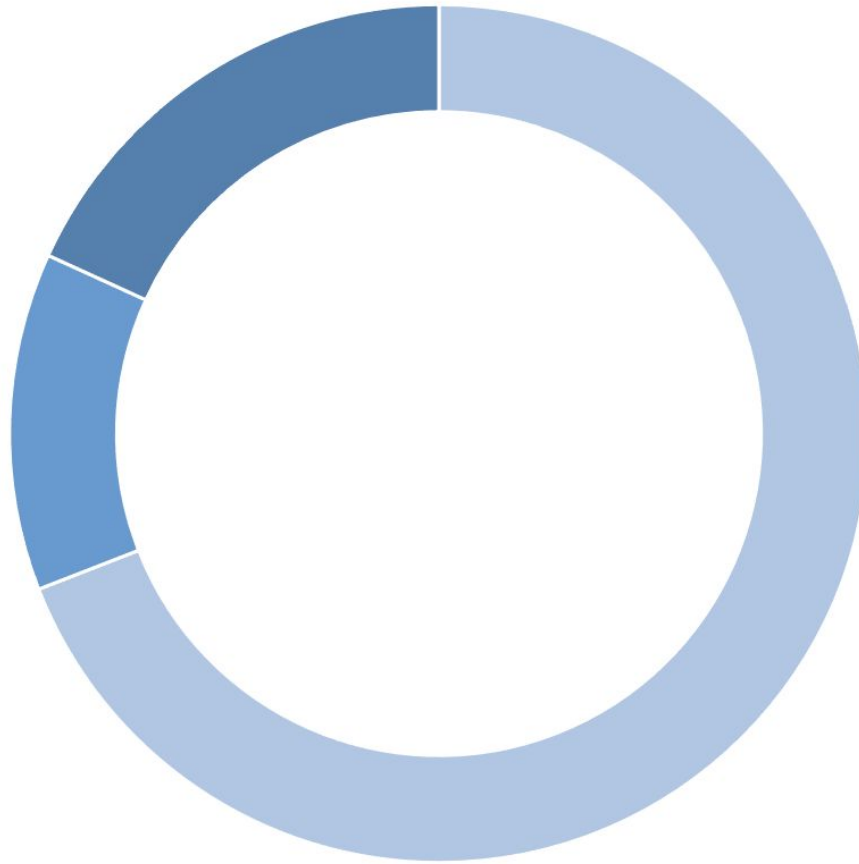


Katie Tims
Sustainability Associate

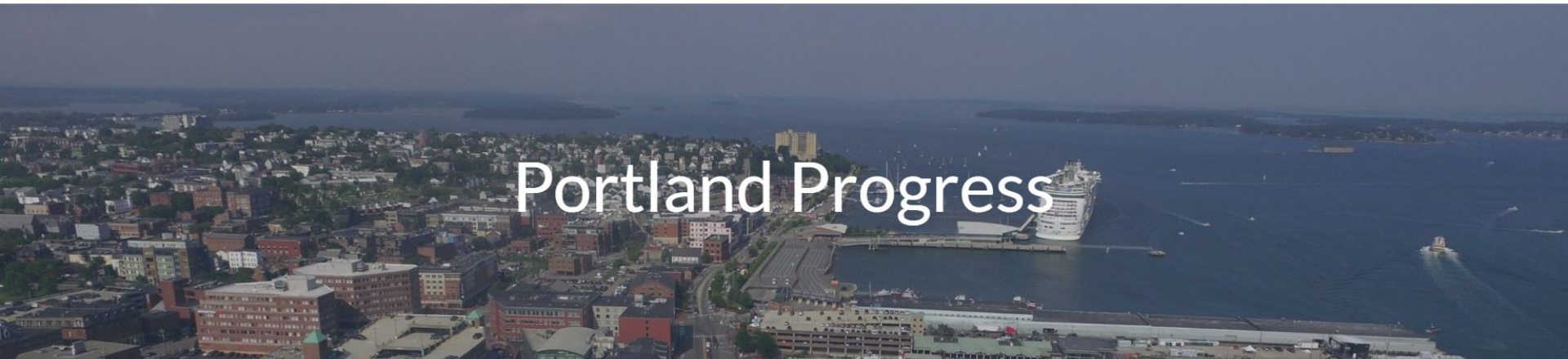


2 years in to One Climate Future

**Of the 56 near-term strategies,
38 are in progress,
7 are upcoming,
and 10 are not started.**



■ IN PROGRESS ■ UPCOMING ■ NOT STARTED



Portland Progress

[BUILDINGS AND ENERGY](#)[WASTE REDUCTION](#)[TRANSPORTATION AND LAND USE](#)[CLIMATE RESILIENCE](#)

See our progress dashboard at:
www.oneclimatefuture.org/

Transportation and Land Use

- EV Charging
 - Spring Street/High Street
 - Hub at Reiche School
 - Hub at East End School
 - Hub at Deering Oaks
- Co-organized Drive Electric Maine
- Supporting Planning and Urban Dev. in developing land use code amendments related to Transit-Oriented Development under ReCode Phase II
- Completed pilot year of Portland Bike Share program, during which over 2000 distinct users took 4860 rides
- Supporting Planning and Urban Dev. in
 - Adding bike lanes on Stevens Avenue and Elm Street
 - Shared-use connection pathways across City
 - Design for Smart Corridor for Morrill's Corner and Forest Ave
 - Modifying standards for Transit Demand Management plans in the technical manual; continuing efforts to streamline the TDM plan development and reporting process



Waste Reduction

- Added 3 new drop off locations (Payson Park, Brentwood Garden, and Riverton Garden) in June
- Translated compost signs in Arabic, Portuguese, Spanish, and French
- Awarded Maine DEP Waste Diversion grant to translate all signs and educational materials into six languages and provide further direct outreach
- Hosted first ever Pumpkin-Cycle



LOCAL NEWS

Portland expands composting program after 'overwhelming' popularity

The city started the free program on Earth Day 2021, offering five drop-off locations.



Buildings and Energy

- Celebrated Clean Energy Week
- Preparing a Master Energy Services Agreement and will be selecting a partner to develop energy efficiency & renewable energy projects in City Facilities
- Energy Benchmarking



Electrify Everything!

- Launched EE! in March and resulted in achieving the goal of assisting at least 100 electrification projects
- Awarded \$200k in ARPA funds to support EE! 2.0

Climate Resilience

- Passed restrictions on synthetic fertilizers to take into effect spring 2023, under the Landcare Ordinance
- Completed dynamic coastal flood inundation modeling for Portland in collaboration with U.S. Army Corps of Engineers, FEMA, NOAA, USDA, USGS, and Maine ACFD
- Consultant hired to complete Portland's climate resilience overlay zoning project
- Worked with PSA and Maine Audubon to draft bird safe ordinance recommendations for Portland
- Scoping study in progress for shore power
- Support PRF in converting all fall leaf operations to entirely mulching in place



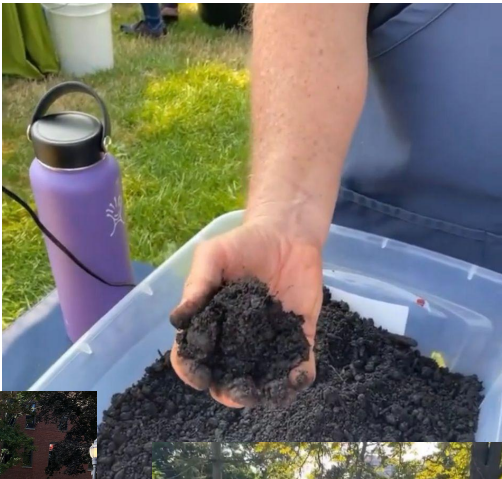
Portland International Jetport

Upcoming additions include

- Addition of 2 plug-in hybrid vehicles for Jetport operations and administration
- First phase of airside apron electric ground service equipment charging stations
- Installation of five passenger boarding bridges equipped with preconditioned air to dramatically reduce fuel and energy use
- Installation of 10 EV charging stations in the public parking garage
- United is interested in converting to electric ground service fleet at PWM



Community Engagement



Community Engagement

- 12 Coffee and Climate Webinars and 17 newsletters!!
- Presentation about OCF to the Biddeford Climate Change Task Force
- Workshops about the 2021 IECC - Portland's building energy code
- Hosted the Swedish Consul General
- Virtual round table with land care professionals about organic practices and Portland's pesticide ordinance
- Presented OCF at Portland Public Library's Sustainability Series
- Co-hosted a webinar with ReVision Energy about home electrification and Electrify Everything!
- Presentation to Rocky Mountain Institute's Electrification Cohort
- Training sessions for property owners who are required to submit their energy data as part of our Energy Benchmarking program
- Community Composting Feedback Survey
- Spoke to the Friends of Woodford Corner about waste reduction and composting
- Hosted a webinar with Efficiency Maine and talked about incentives to weatherize and electrify
- Earth Month Kick Off in Post Office Park with ecomaine and Window Dressers
- Co-hosted a webinar with ReVision Energy about community solar options
- Spoke to King Middle School 6th graders about OCF
- Speaker for Portland Rotary about OCF and Electrify Everything
- Presentations at Maine Climate Council's conference at the Augusta Civic Center
- Presentation to the New England Municipal Sustainability Network about tree equity
- Wayside Picnics
- Pop-up sustainability fair in Post Office Park with Revision Energy, the Portland Public Library, and ecomaine
- Presentation on climate impacts to the North Atlantic bioregion
- Sustainable Land Care event in Payson Park
- Organized a NEMS meeting about how the Inflation Reduction Act
- Park(ing) Day
- Maine Hunger Dialogue and Climate Action Summit
- Maine Digital Government Summit in Augusta
- Organized a webinar with Efficiency Maine and Evergreen Home Performance to discuss winterization

Stay up to date with One Climate Future.

Check out the monthly newsletter for updates, upcoming events, and ways to get involved.

**READ THE LATEST
NEWSLETTER**





Instagram @sustainableportlandme

Twitter @SustainPortME

Facebook @SustainablePortlandME

Department of Public Works

Mike Murray

Acting Director

January 6, 2023

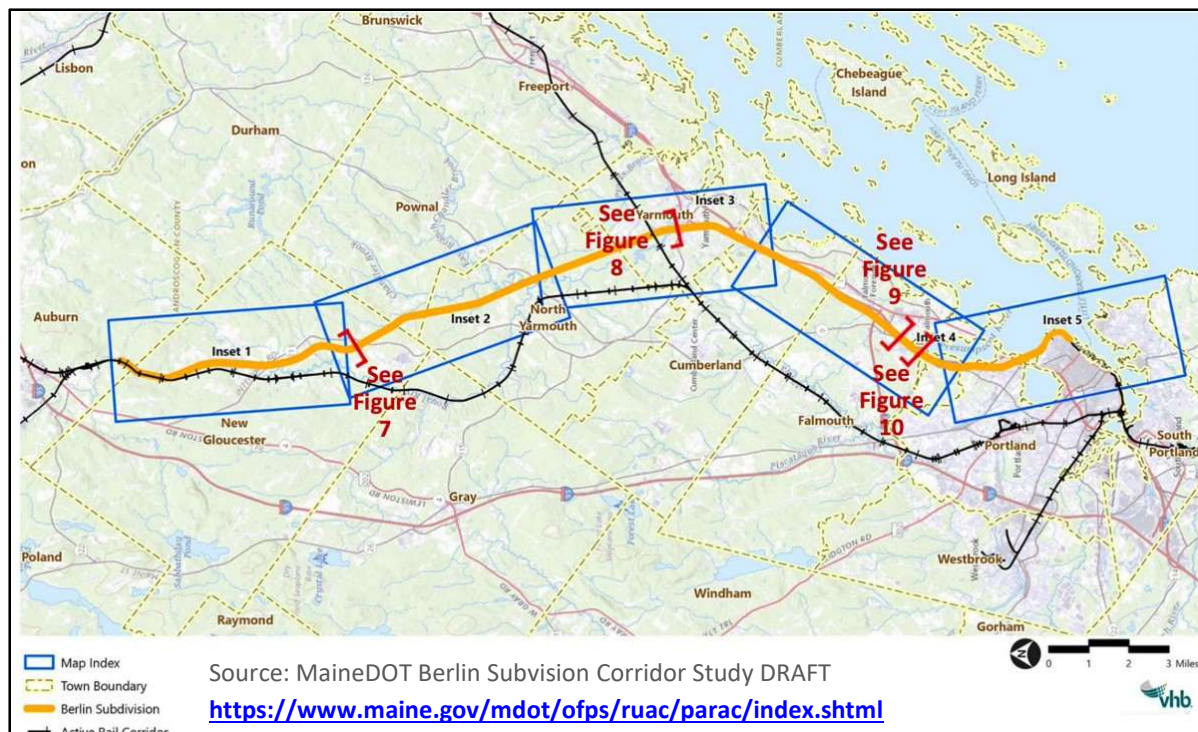


Councilor Andrew Zarro, Chair
Sustainability & Transportation Committee

Subject: **Portland to Auburn Rail Use Advisory Council**
Process Update and Staff Proposal for Policy Recommendation

The City of Portland was part of a multi-community and stakeholder study of the State-owned St. Lawrence and Atlantic Line which was convened over a nine-month period and resulted in a majority and minority recommendation for future use of the line in December of 2022.

The study was initiated following the passage of a bill into law that allowed for a petition process to assess the conversion of railroad corridors (generally used for freight movements) to other transportation uses. Over the course of the study, MaineDOT, with consultant support, provided economic and cost information as it related to various reuse options.



2005-2013: State Acquisition and Transit Potential

This corridor has long been eyed as having a future transportation purpose, and that concept was very much a part of the State acquiring this section of the St. Lawrence and Atlantic in the 2007 to 2010 period. It was identified as having significant potential for commuter transit near I-295 from Yarmouth southerly to Portland, and similar work and planning was identified northerly into Auburn, including potential use of the line to establish a commuter station at the Auburn-Lewiston Airport. Significant investment in serving this line took place in 2010 when MaineDOT completed a \$7.5 million overhaul of I-295 Exit 15, including a 300-space park and ride facility adjacent to the line.

This work came on the heels of a 2008 PACTS-funded Peninsula Transit study, which identified a number of recommendations and items for further action. These included a streetcar service on Commercial Street and regional light rail on the SLA corridor from the Ocean Gateway facility to communities north.

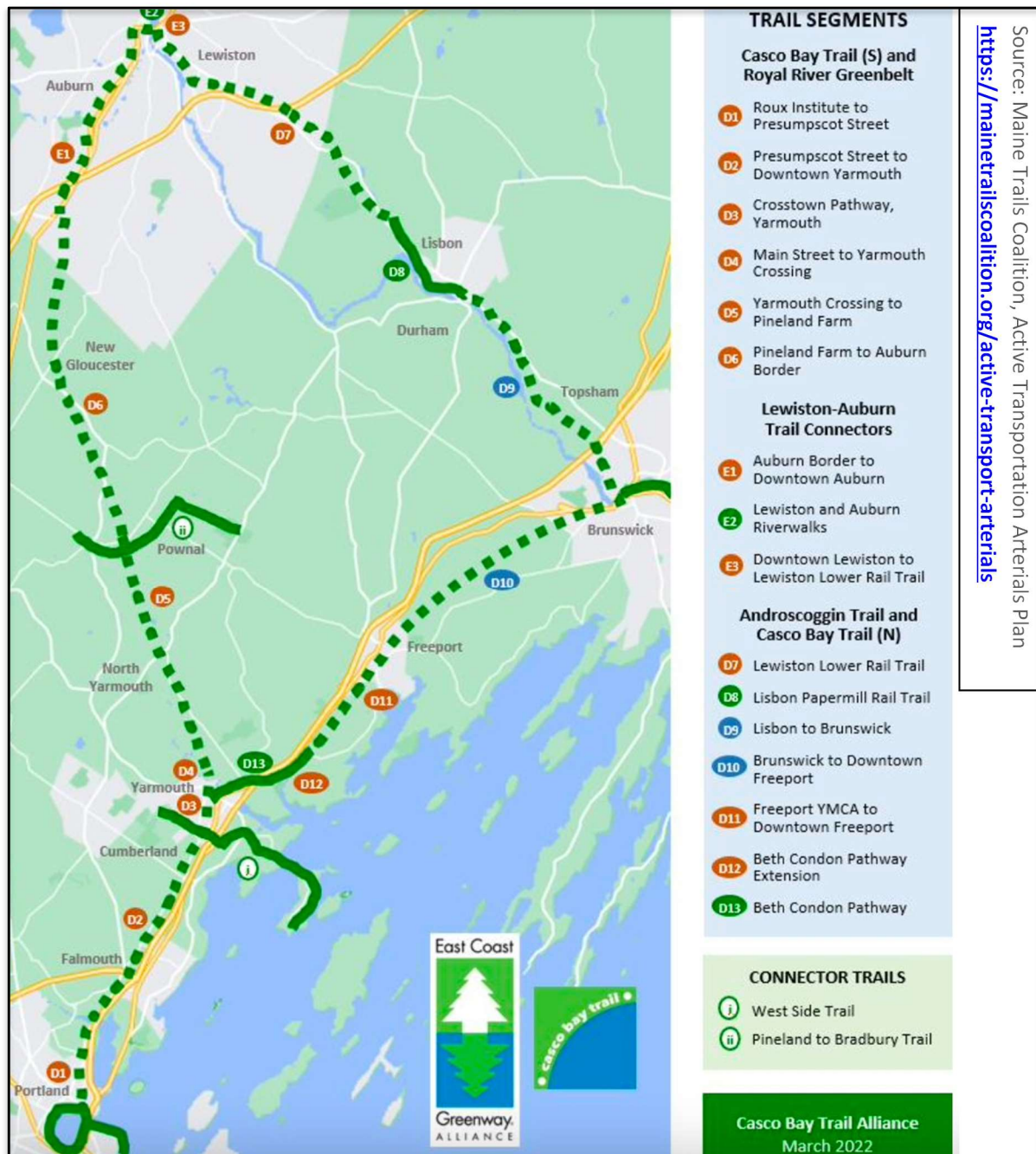


Finally, in 2013, Portland, Auburn and Lewiston voted in favor of a Joint Resolution in support of a Portland North passenger transit service connecting these communities. The resolution cited the “growing need for fast-economical and environmentally sound transit service between Portland, Lewiston and Auburn” to “help employment, medical and entertainment opportunities” and “support the goal of reducing single-passenger vehicle trips”. It was passed unanimously by the Portland City Council on January 7, 2013.

2020-2022: Active Transportation Goals and Proposals

Following this flurry of activity, very little, if any developments regarding transit occurred over the next eight years with changes in political leadership in Augusta and other competing priorities. But in that time, other transportation interests came to the fore, providing additional thinking on the potential for this line. Statewide, a movement began to advocate for long-distance trails via dedicated rights-of-way, such as rail corridors, and accommodating active transportation uses, such as walking and biking.

As part of this movement, the Casco Bay Trail Alliance, the Maine Trails Coalition, and the East Coast Greenway released the Active Transportation Arterials Plan, which included the SLR corridor and connections to Portland northerly to Auburn. This plan resulted in the petition process to initiate the advisory study last year.



Study Process and Outcome

The study began in April of 2022, and included a demographic and economic analysis for various study options. The study itself focused on the following three alternatives:

- 1.) **Restore Rail Service on Existing Corridor:** Heavy Rail reuse for Freight and Passenger operations
- 2.) **Interim Rail Until Trail:** Demolish existing track and replace with asphalt or gravel trail
- 3.) **Rail with Trail:** Construct trail alongside tracks and generally within the state-owned right-of-way

On December 22, 2022, the Council took a vote on an advisory opinion/alternative. There was a split, with 8 votes for removing the tracks and constructing a trail, 4 votes for constructing a trail alongside the tracks, and one abstention.

Several of the Council members, including Portland, noted a number of limitations with the study itself. The two largest concerns were the following:

Representation: Each community had the same level of representation, regardless of population.

Transit Mode/Method: The other was the sole focus of heavy rail as a commuter transit method. This corridor, as noted earlier in this memo, has been discussed for a variety of potential commuter options, and it is costly and inefficient to try to duplicate a service akin to intercity rail (i.e. the Amtrak Downeaster) for regional commuter service.

Current Events

Currently, a number of items and processes are taking place that may well bear on the future utility and outcomes of this state-owned corridor:

- METRO, the region's primary transit provider, is planning on extending one, and possibly up to three, routes to the Eastern Waterfront and Ocean Gateway. Specifically, METRO plans on extending the Husky Line, likely early this year. Extensions of the Route 2 and Route 4 are also a strong possibility, pending budget and operator availability, as part of GPCOG's Transit Together route optimization plan. This creates opportunities for a transit-based hub at the Ocean Gateway, i.e. the southern terminus of the SLA as defined in the MaineDOT study.
- Portland's land uses in the immediate or near vicinity of the SLA line are evolving rapidly, now including major employers, significant amounts of new housing, as well as the USM Law School and the future location of Northeastern University's Roux Institute, representing investments in the hundreds of millions of dollars. The latter has proposed citing its new campus on either side of the state-owned right-of-way.
- The CSX main line has proven to be well-suited to carry Downeaster intercity passenger rail service. However, this line is unlikely to ever be a suitable candidate for higher-frequency commuter transit service (i.e. rapid transit), given operational constraints on the CSX main line and that operator's likely unwillingness to accommodate such outcomes. The SLA line could be an ideal location for such a service, and potentially complement the high-speed transit facility being discussed from Portland westerly to Gorham as a PACTS funded study.
- On December 19, 2022, Auburn's City Council voted unanimously for a rail with trail recommendation as well as "the expedited movement of any necessary planning and design work to implement that

recommendation between Maine’s largest City, Portland and the City of Auburn.” Lewiston is contemplating a similar outcome in a pending Council meeting, likely in February.

- Lastly, multiple bills recommending various options for this corridor have begun circulating through the Maine Legislature, so the topic is active with state-level policy makers.

Recommendation

Based on both the long and recent history, as well as active topics potentially impacting this important corridor, staff recommends a position of “trail with rail” to ensure the maximum utilization for City benefits.

In addition, we also recommend that a transit alternatives analysis be completed by MaineDOT to determine the future direction of the transit portion of the corridor (i.e. light rail, BRT, something else), with a southern terminus at the Ocean Gateway/relocated METRO route hub). This, in turn, would lead to the engineering and design of this corridor for both active transportation and transit uses. The scope of the design work would include work with abutters, stakeholders (i.e. Roux, etc.) to evaluate on and off-corridor segments for the trail, depending upon geographic and/or environmental constraints.

Ultimately, as the region continues to grow, strategic investment in and development of active transportation and transit alternatives is necessary to prevent sprawl. In the absence of that investment, congestion on I-295 is likely to result in pressure to widen that highway, as well as an increase in carbon emissions.

Berlin Subdivision/SLA: Portland to Auburn Rail Use Advisory Council

Portland Sustainability & Transportation Committee

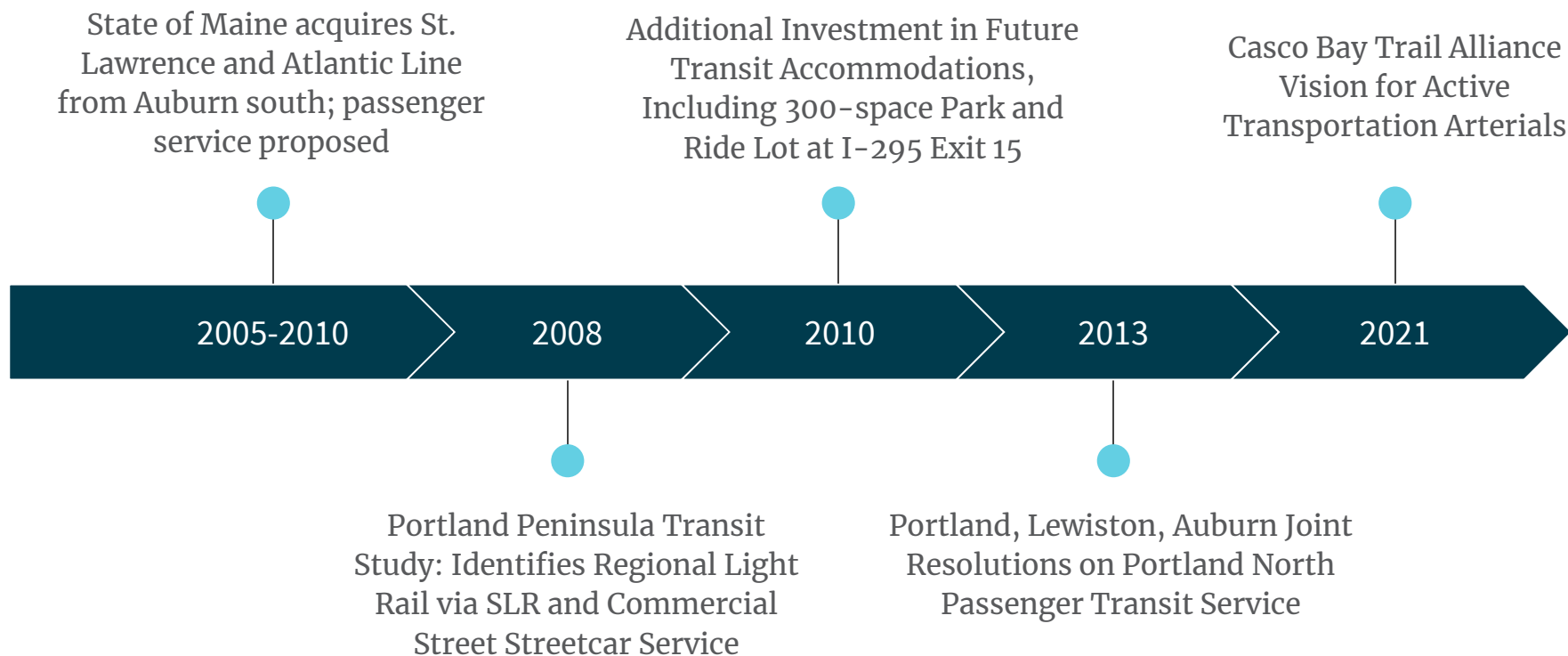


January 11, 2023

Source: rtc-submitted photo to trillink.com

TIMELINE

Background for Where We Are Now



Portland Peninsula Transit Study (2008)



Commercial Street Streetcar

Report recommended establishment of high-frequency, high-quality fixed-guideway service connecting Ocean Gateway to points along Commercial Street, with future connections to the west.

Regional Light Rail

Report identified potential use of SLR corridor for commuter service for communities to the north, connecting to Ocean Gateway facility.

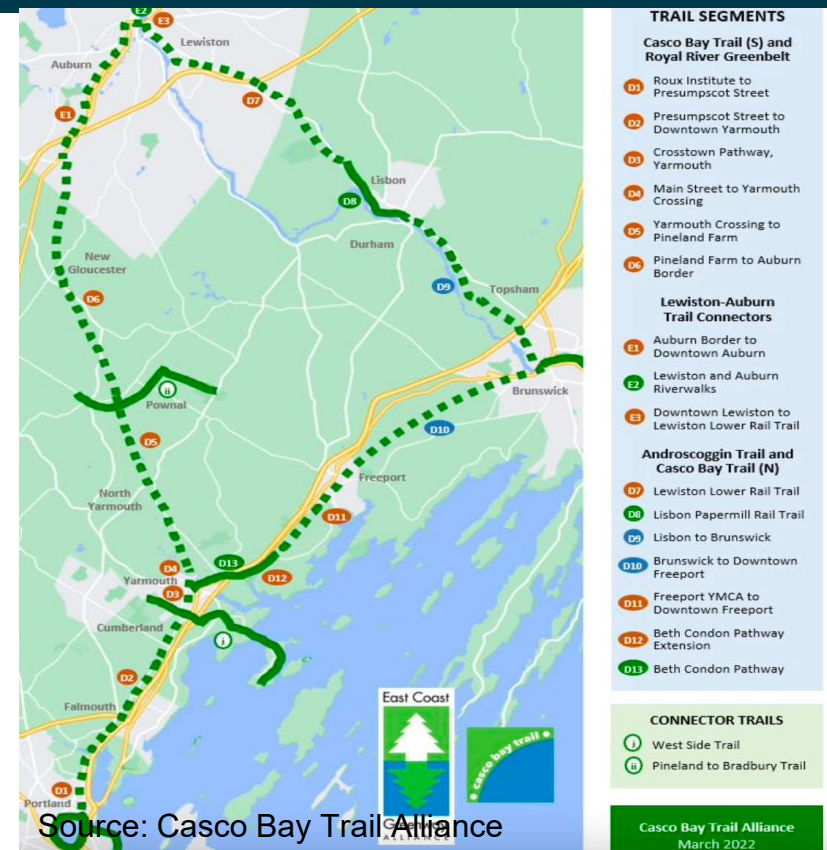
Vision for Active Transportation (2021)

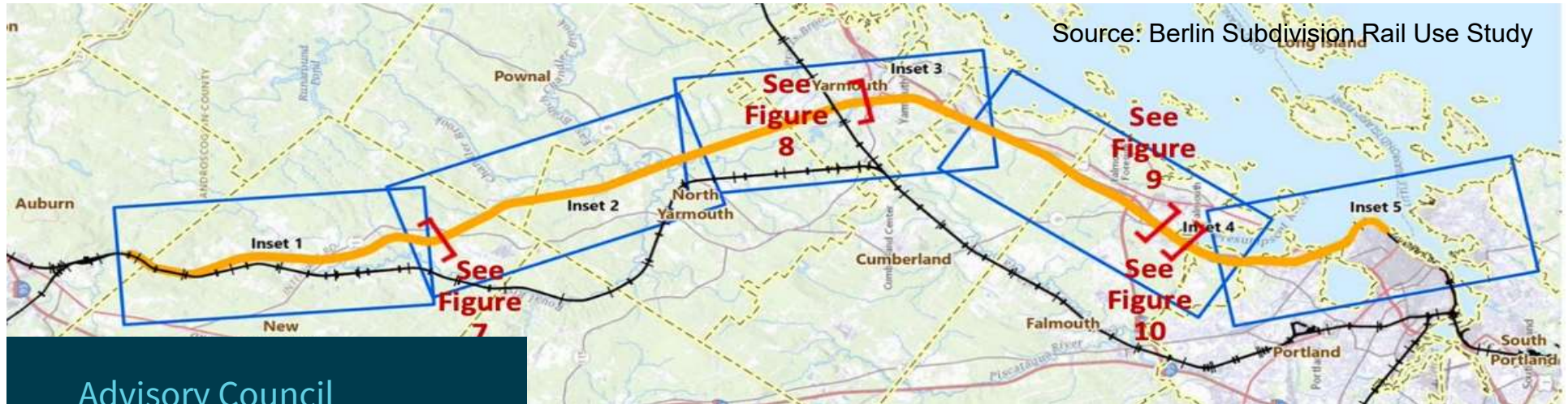
Casco Bay Trail Alliance

Proposal for a large series of connecting facilities that include Portland, Yarmouth, Lewiston, Auburn and Brunswick

Trail Segments D1-D6

Proposed trail facility along state-owned facility from the future Roux Institute Campus to Auburn





Advisory Council

- Comprised of Member Communities/Stakeholders
- Met over 9 months in 2022
- One formal public meeting

Alternatives/Options

- Restore Rail Service
- Interim Trail Until Trail
- Rail with Trail

Berlin Subdivision Rail Use Study

Rail Use Advisory Council Formed in April of 2022

Former by MaineDOT Commissioner as a result of [L.D. 1133, An Act To Amend the Transportation Laws](#)

Rail Use Advisory Council Process/Outcomes

Representation/Process

- 1 vote per community (regardless of population)
- 1 vote per stakeholder organization
- 1 formal public meeting in Cumberland

Transportation Assumptions

- Rail Options Based Solely on Use of Heavy Rail
- Study Did Not Evaluate Other Transit Options Along Corridor

Constituent Votes 12/22/22

- 7 votes “rail until trail” (track demolition)
- 4 votes “rail with trail” (co-location of facilities)
- 2 abstentions
- NOTE: “Rail until trail” and “rail with trail” both support trails

Items of Consideration

METRO Route Hub

- Extension of Husky Line in 2023 to Ocean Gateway
- Likely extensions of the Route 2 and Route 4 as part of GPCOG's Transit Together route optimization plan
- Creates a de-facto transit Hub at Ocean Gateway/southern terminus of the SLA



Items of Consideration (continued)



Development Factors

- Roux Institute Relocation: working through zone change process – will pivot to site plan approval process
- USM Law School Relocation: Campus moved to 300 Fore Street
- Major Developments Ongoing: 58 Fore Street, Shipyard redevelopment, more Eastern Waterfront items to come
- Portland Harbor Common Open Space project: Portland Parks Conservancy Awarded \$2 Million in Omnibus Funding – will shift auto-oriented area to a major tourist destination

Items of Consideration (Continued)

CSX Line for Commuter Transit

- CSX Acquired Pan Am in 2022
- Class 1 Railroads generally less flexible in accommodations
- Other studies looking at intercity rail access (Downeaster-type service)
- Unlikely candidate to host high-frequency commuter transit services



Staff Recommendation

Rail with Trail (Co-Location Option)



- Also recommend MaineDOT complete transit alternatives analysis for corridor (i.e. light rail, BRT, something else), terminating at Ocean Gateway
- Followed by design for transit and trail uses
- Scope of design work to include abutters, stakeholders (i.e. Roux, etc.) to evaluate on and off-corridor segments for the trail, depending upon geographic and/or environmental constraints



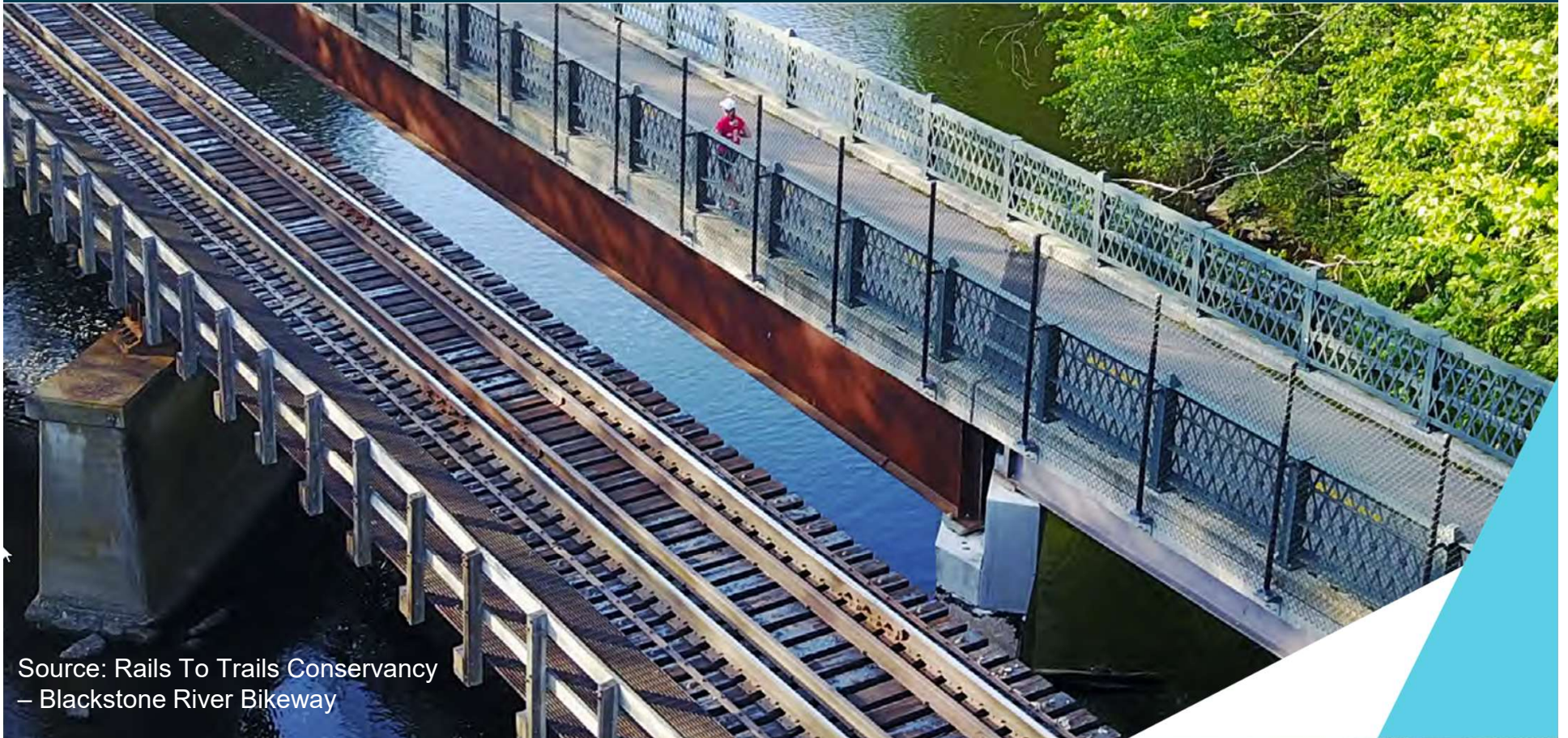
Other



Other Factors/Items of Consideration

- Rail with Trail Option passed unanimously by Auburn Council
- Lewiston Council to consider similar action
- Potential Bills already circulating in State Legislature
- Pressure on I-295 continuing to increase post-pandemic – widening would have major land and environmental impacts
- Rapid transit to Gorham being evaluated – potential for long-term integration?

Questions?



Source: Rails To Trails Conservancy
– Blackstone River Bikeway



Thank You!



Troy Moon <thm@portlandmaine.gov>

Casco Bay Trail Alliance - Rail Use Advisory Council Update + Vote

Emma Bond <emma.e.bond@gmail.com>

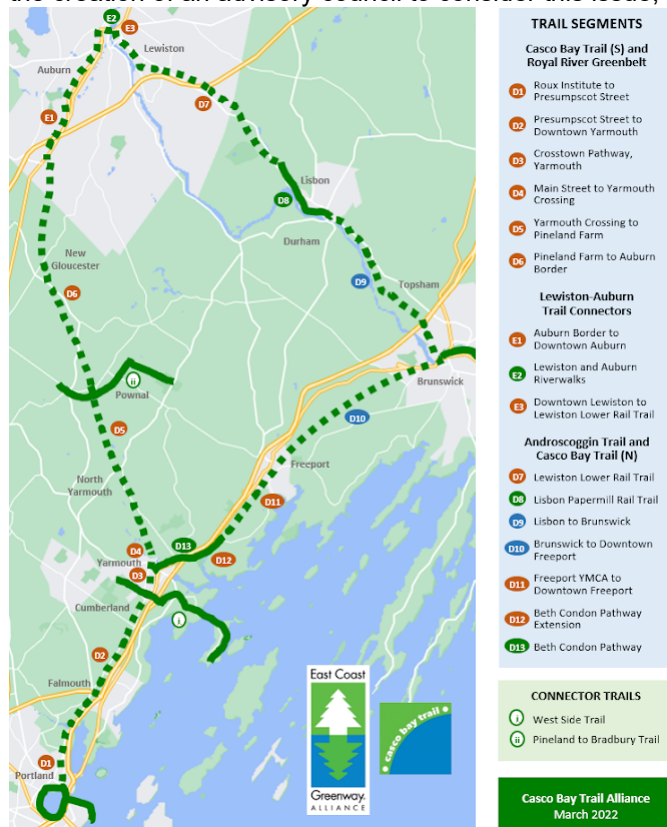
Mon, Jan 2, 2023 at 6:26 PM

To: Andrew Zarro <azarro@portlandmaine.gov>, Roberto Rodríguez <rrodriguez@portlandmaine.gov>, vpelletier@portlandmaine.gov

Cc: ksnyder@portlandmaine.gov, Pious Ali <pali@portlandmaine.gov>, "afournier@portlandmaine.gov" <afournier@portlandmaine.gov>, "atrevorrow@portlandmaine.gov" <atrevorrow@portlandmaine.gov>, "rphillips@portlandmaine.gov" <rphillips@portlandmaine.gov>, "mdion@portlandmaine.gov" <mdion@portlandmaine.gov>, Jeremiah Bartlett <jbartlett@portlandmaine.gov>, Troy Moon <thm@portlandmaine.gov>

Dear Members of the Sustainability and Transportation Committee,

I'm reaching out to provide an update on the Maine Department of Transportation Rail Use Advisory Council that has been evaluating a proposed trail use for the disused rail corridor from Portland to Auburn. This is a key part of the proposed [Casco Bay Trail Alliance](#), a vision for an offroad, multi-use trail that would provide an active transportation corridor connecting Portland, Lewiston, and Brunswick (image below). In 2021, the full City Council (copied) supported the creation of an advisory council to consider this issue, as reflected in the attached resolution.



The latest update is that, on December 22, 2022, **the Rail Use Advisory Council voted 11 to 1 in support of a trail use for the Portland-to-Auburn section of the proposed Casco Bay Trail, with a majority (7 votes) specifically supporting interim trail.** As background, "interim trail" (also called "trail until rail") means that the corridor would remain preserved for rail use, should rail become feasible in the future. Portland's representative on the council voted for a rail with trail. The rail-with-trail option would allow construction of a trail with a setback from the disused tracks, but still supports the trail use. **Almost 800 people** (799, to be exact), including many Portland residents, commented on the project, **with 86% supporting the interim trial.**

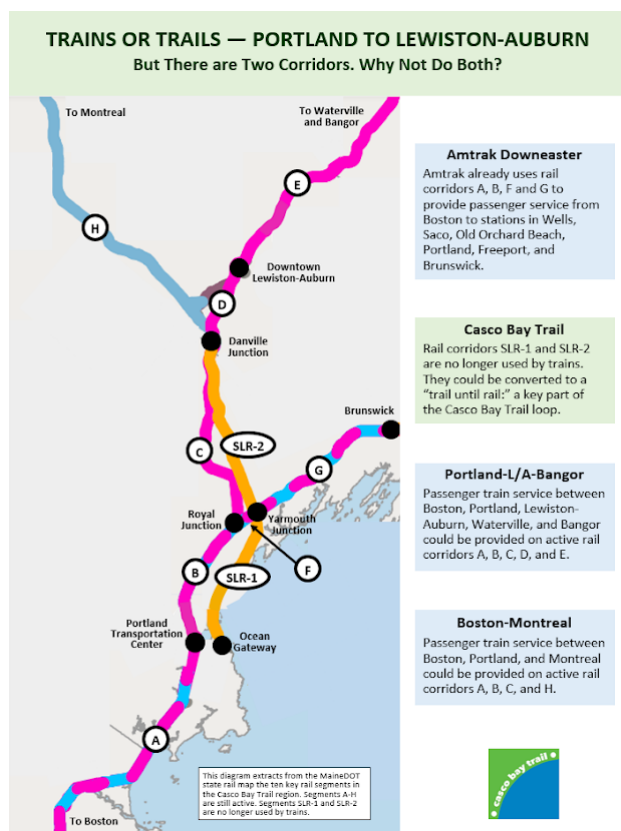
As next steps, the advisory council will complete written reports reflecting the majority and minority positions. The Casco Bay Trail Alliance plans to ask DOT to adopt the recommendation of the advisory council to support an interim trail, and to present a bill to the legislature supporting that outcome.

This is an exciting time, and there is room for collaboration between the City of Portland, the Maine Department of Transportation, GPCOG, and organizations like the Casco Bay Trail Alliance to create new active transportation

infrastructure connecting Portland to points north. This project would fit perfectly with Portland's broader effort to provide trails linking different parts of the city. For now, East Deering remains one of the few neighborhoods without such a trail in the works, and supporting the CBTA initiative would remedy that. As we move ahead with potential collaboration and next steps, there are several points we believe are important to keep in mind:

An interim trail is the best way to achieve the goal of active transportation in Portland, while still protecting the possibility of passenger rail from Portland to Lewiston.

- The active CSX corridor (pictured in pink below), runs parallel to the disused corridor under consideration (in orange, also known as the SLR corridor) and makes most sense for any future passenger rail use. Any train linking Lewiston, Portland, and Boston would have to use the pink CSX corridor regardless, because (as you can see below), the orange SLR line dead ends on Commercial Street in Portland and at Danville Junction in Auburn, without extending to either Boston or Lewiston. The pink CSX line links to both and already connects to the Portland Transportation Center. The CSX line makes sense for any future passenger rail; the SLR makes most sense for an interim trail.
- If it ever became feasible to have two rail lines from Lewiston to Portland, much of the rail on the SLR corridor would **likely have to be replaced** anyway, to reach passenger rail speeds of up to 60 mph.
- The SLR corridor is narrow in many places, and making it wide enough for rail and trail could have negative environmental consequences.



- Interim trail is also the most financially viable option, with the cost of constructing a rail with trail (even before any rail costs) **effectively doubling** the costs of the project. An interim trail could be feasible in the short term with state, federal, local, and business funding, whereas the rail-with-trail option may not become financially feasible for decades, if ever. The SLR rail corridor has remained unused for eight years, at taxpayer expense; we should seize the opportunity to make use of this amazing resource.

Table 4: Potential Interim Trail Use Cost Estimates

Berlin Subdivision Corridor Trail Alternatives	MP 0.0 to 1.7	MP 1.7 to 26.5	TOTAL Cost
Interim TUR with Stone Dust/Gravel Wearing Surface	\$19,100,000	\$28,400,000	\$47,500,000
Interim TUR with Asphalt Wearing Surface	\$19,200,000	\$35,800,000	\$55,000,000
RWT with Stone Dust/Gravel Wearing Surface	\$19,300,000	\$70,700,000	\$90,000,000
RWT with Asphalt Wearing Surface	\$19,300,000	\$75,000,000	\$94,300,000

Finally, and perhaps most importantly, **Portland has already expressed a preference *against the SLR route* for any future passenger rail to Lewiston.**

- Portland has already come out against using the Portland-to-Yarmouth section of the SLR corridor for passenger rail. This route would require the "Ocean Gateway" station, which is disfavored by the City of Portland, according to City [testimony](#) to the legislature (also attached).
- The City's testimony stated that the **"focus on the Portland Ocean Gateway Pier as a hub would cause significant new congestion and negative impacts in the historic downtown area, as well as serve as a less effective and efficient mode of transportation than existing alternatives."**
- The City's testimony further advocated for instead using the "existing Downeaster corridor" (now the CSX line also advocated by the CBTA). Specifically, the City stated that: "Staff recommends that a future expansion of rail service to/from Portland leverage the existing Downeaster corridor/Pan Am main line, as it already provides for passenger service and acquisition of this line by CSX may bring additional capital investment opportunities."

Given the City's documented preference *not* to proceed with the Ocean Gateway route (i.e., the Portland-to-Yarmouth section of the SLR), and preference to see potential rail on the CSX line, an interim trail aligns best with Portland's interests.

If the S+T Committee plans to consider this issue at any future meeting, we would be pleased to attend that meeting, and to provide public comment, or to answer any questions you might have. Additionally, parts of the Casco Bay Trail are being considered in GPCOG's long-term planning, and we would welcome the opportunity to present to the S+T committee about how the Casco Bay Trail could fit into the City of Portland's active transportation plans.

Thanks very much for your time, and we look forward to working together in the new year!

Best,
Emma Bond
Arcadia Street, Portland, Maine
Board Member, Casco Bay Trail Alliance

2 attachments



Portland Resolution in Support of Advisory Council.pdf
112K



City of Portland Testimony.pdf
105K



CITY OF PORTLAND

To: Committee on Transportation
From: Kate Snyder, Mayor
Date: May 21, 2021
RE: Testimony in support of LD 991

Good morning, Senator Diamond, Representative Martin, and distinguished members of the Committee on Transportation:

My name is Kate Snyder, and I am Mayor of the City of Portland. I am here on behalf of the Legislative Committee of the Portland City Council in support of LD 991 (*Resolve, Directing the Department of Transportation To Complete a Feasibility Analysis To Initiate a Commuter and Passenger Train Service between Portland and the Lewiston and Auburn Area*).

There is an enormous need and desire to increase transportation options to and from Portland. Doing so would yield a number of benefits, including strengthening our local and regional economies as well as working to reduce regional reliance on passenger vehicles and mitigate our collective impact on the climate.

While we are extremely supportive of a feasibility analysis undertaken by the Department of Transportation, I would also like to mention some concerns held by City of Portland staff members. Specifically, LD 991's focus on the Portland Ocean Gateway Pier as a hub would cause significant new congestion and negative impacts in the historic downtown area, as well as serve as a less effective and efficient mode of transportation than existing alternatives. Staff recommends that a future expansion of rail service to/from Portland leverage the existing Downeaster corridor/Pan Am main line, as it already provides for passenger service and acquisition of this line by CSX may bring additional capital investment opportunities. The City offers its help and partnership in any analysis that the Department of Transportation ultimately undertakes.

In summary, we strongly support a Department of Transportation feasibility analysis to comprehensively and strategically expand orail access to and from Portland, and ask that you vote in support of LD 991. Thank you for your time and consideration.

Resolve 1-21/22

Motion to amend to be the same as the Resolve approved by the Sustainability and
Transportation Committee: 9-0 on 9/8/2021

Passage: 9-0 on 9/8/2021

Effective 9/18/2021

KATE SNYDER (MAYOR)
BELINDA S. RAY (1)
SPENCER R. THIBODEAU (2)
TAE Y. CHONG (3)
ANDREW ZARRO (4)

**CITY OF PORTLAND
IN THE CITY COUNCIL**

MARK DION (5)
APRIL D. FOURNIER(A/L)
PIOUS ALI (A/L)
NICHOLAS M. MAVODONES, JR (A/L)

**RESOLUTION REQUESTING THE ESTABLISHMENT OF A RAIL CORRIDOR USE
ADVISORY COUNCIL FOR THE CASCO BAY TRAIL AND THE ENFORCEMENT
OF THE 2018 AMENDED DISCONTINUANCE AGREEMENT FOR THE CASCO BAY
SLA CORRIDOR**

WHEREAS, the Casco Bay Trail refers to a 10-mile, disused rail corridor from Portland to Falmouth, Cumberland, and Yarmouth, currently known as the St Lawrence and Atlantic rail corridor (hereinafter “Casco Bay SLA Corridor”), that was acquired by the State of Maine in 2007 and 2010; and

WHEREAS, the Casco Bay Trail Alliance, formed in 2019, created a vision, and is leading the effort, to convert the Casco Bay SLA Corridor to a multi-purpose “trail-until-rail” to be included in an off-road bicycle and pedestrian trail network connecting Portland, Lewiston-Auburn, and Brunswick, Maine; and

WHEREAS, the Casco Bay Trail is part of a broader Maine Trail Plan issued by the Maine Trails Coalition in 2020, which calls for the construction of multiple specific rail-trail projects over the next decade, each of which would connect with existing multi-use trail infrastructure; and

WHEREAS, long-distance multi-use trails are a key recommendation of a 2010 report “Improving Maine’s Quality of Place Through Integrated Bicycle and Pedestrian Connections” by the Maine Dept. of Transportation, State Planning Office, Dept. of Conservation, and Center for Disease Control and Prevention; and

WHEREAS, the possibility of a trail alongside the existing rail was explored in a 2017 GPCOG/PACTS study “Rail with Trail: Preliminary Feasibility Assessment of Building an Active Transportation Corridor from Portland to Yarmouth;” and

WHEREAS, the focus of the 2017 study was to add a future trail to the existing rail right-of-way so as to preserve the potential for future restoration of freight and/or passenger rail service to the currently inactive rail corridor; and

WHEREAS, the study included a well-attended regional public meeting that indicated a high level of community support for adding a trail to the rail corridor, but also some concerns; and

WHEREAS, the 2017 report recommended that a more detailed feasibility study be developed; and

WHEREAS, the Governor has recently signed into law LD 1133, allowing for the creation of Rail Corridor Advisory Councils to “facilitate discussion, gather information and provide advice to the commissioner regarding future use” of rail corridors owned by the State, and

WHEREAS, the SLA rail right-of-way was originally purchased by the Maine Department of Transportation for rail purposes; and

WHEREAS, a freight operator holds a freight railroad easement, but has discontinued freight service on the rail line, and

WHEREAS, the freight operator is subject to a contract with the Maine Department of Transportation (“the 2018 Amended Discontinuance Agreement”), stating that, unless freight rail service is resumed by November 1, 2021, the operator “shall . . . seek authority from the [Surface Transportation Board] to abandon the Railroad Line,” which, once granted, would terminate the freight railroad easement over the Railroad Line, and

WHEREAS, the Casco Bay SLA Corridor has been studied for possible conversion to passenger rail, but, according to a 2019 study commissioned by the Maine Department of Transportation (the Lewiston Auburn Passenger Rail Service Plan – Operating Plans and Corridor Assessments), converting the Casco Bay SLA Corridor to passenger rail would require transit through the East End with a new “Ocean Gateway Station,” and

WHEREAS, the above referenced 2019 study made a recommendation to “eliminate options that require an Ocean Gateway Station,” and

WHEREAS, the June 2021 Legislative Document 991, “Resolve, Directing the Department of Transportation to Conduct an Economic Evaluation Study for Commuter and Passenger Train Service between Portland and the Lewiston and Auburn Area,” lists two options to be further studied, neither of which includes the Casco Bay SLA corridor south of Yarmouth, implying that the Casco Bay SLA corridor is currently no longer being studied for future passenger rail use; and

WHEREAS, it may be worthwhile for the City of Portland to express its interest to Maine DOT to explore the future use of the Casco Bay SLA Corridor as a multi-use trail.

NOW, THEREFORE, BE IT RESOLVED that the Portland City Council hereby petitions the Department of Transportation to:

1. accept the abandonment of the above-referenced freight easement;
2. to the extent the Department is considering any extension or amendment to the above-referenced freight easement, provide a notice-and-comment procedure to ensure that all voices are considered before granting a benefit at no cost to a single company; and
3. create a Rail Corridor Use Advisory Council to consider future use of the Casco Bay SLA Corridor as a multi-use “trail-until-rail.”



Troy Moon <thm@portlandmaine.gov>

Removing rails? How dumb.

1 message

Bob Mentzinger <bmentzinger@gmail.com>

Mon, Jan 9, 2023 at 11:08 AM

To: Troy Moon <thm@portlandmaine.gov>

Cc: Tony Donovan <melikesrail@gmail.com>, council@portlandmaine.gov

Hi Troy:

It's my understanding the Rail Use Advisory Committee of the City Council is going to recommend removing rails in favor of recreational trails in the city of Portland.

You have to be kidding me. These are multimillion-dollar public assets that can never be replaced if they are gone, not to mention the economic value they bring the city in terms of their ability to move working commuters from more affordable areas into Portland compared to whatever economic value the Spandex crowd is claiming.

Ridiculous. Absolutely ridiculous.

I hope you'll join the rest of us in the sustainability community and defend this green method of transportation for workers and visitors by enhancing and expanding the rail network for use by stakeholders in the city, not reducing and destroying it for the benefit of an elite few.

Thanks and regards,

Bob Mentzinger

[23 Cypress St., Portland](#)

cc: City Council, Maine Rail Transit Coalition



Troy Moon <thm@portlandmaine.gov>

Save the cleanest form of transportation

1 message

Paul Weiss <weissp@me.com>

Mon, Jan 9, 2023 at 4:25 PM

To: thm@portlandmaine.gov

Cc: Anthony Donovan <MElikesRail@gmail.com>

Troy,

As a sustainability coordinator I find it appalling that there are plans to rip up our cleanest form of mass transportation.

We need to restore electrified passenger rail service on the SLR line. I personally worked with Governor Baldacci to save this railway for future passenger rail use. We spent millions of dollars of taxpayers money to do it. Now special interest want to rip it up for a trail, only a few will use?

I urge you to stop this crime of our public assets. Railways can add orders of magnitude more economic return than a seasonal bike path. Look no further than Downeast where miles of track was ripped up for one of the worlds most expensive ATV trails. Economic ruin and gasoline powered transportation abound now, along with thousands of lost jobs and an unhealthy population. By restoring electrified passenger service between Maines largest cities, we can eliminate millions of tons of Carbon pollution. Otherwise we are locking ourselves in a completely unsustainable future in which a select few will have a flat boring straight bike trail, at the expense of our environment.

Paul Weiss
Cumberland, ME

Sent from my iPhone 14 Plus

City of Portland Public Comment re Casco Bay Trail

Dear Members of the Sustainability and Transportation Committee,

I'm writing in support of an interim trail for the Berlin Subdivision Corridor (also known as the SLR corridor). The proposed [Casco Bay Trail](#) appears to be directly aligned with the mission and values of the city's Sustainability and Transportation Committee eg "...[One Climate Future](#), Parks and [Open Space](#), Parking, and [transportation related issues including vehicle traffic, mass transit, and bike/ped infrastructure](#)."

Rather than inundate you with statistics about the benefits of rail trails, I'll refer you to some helpful resources from the leading authority on the topic: [Rails To Trails Conservancy digital resource library](#). Here you'll find pages of data supporting the economic, health, and transportation benefits of rail trails.

When considering use of this corridor, it's vitally important that we not view this as a stand-alone project or simple recreational amenity, but one piece of a larger, regional transportation network that will fill a critical need in the greater Portland area: a comprehensive plan for active transportation. In this respect, it is also important to consider the fact that Maine DOT, GPCOG, and others have adopted policies to make this vision a reality (referenced below).

- [The Maine Statewide Active Transportation Plan](#)
- [GPCOG is adopting a Vision Zero policy](#) which calls for major investments in the active transportation infrastructure in order to reduce the number of crash related traffic deaths.
- [The Maine Active Transportation Arterials Plan](#) lays the groundwork to connect Maine's 25 largest municipalities and over two-thirds of Maine's population.
- There's also a plan that's specific to Greater Portland: https://bit.ly/GPARterials_Jun22

Additionally, as per the City of Portland September 2021 Resolve petitioning the Maine DOT (Resolve 1-21/22, Passage: 9-0 on 9/8/2021):

"... the Portland City Council hereby petitions the Department of Transportation to:
create a Rail Corridor Use Advisory Council to ... **consider future use of the Casco Bay SLA Corridor as a multi-use "trail-until-rail."**

The City of Portland has already expressed a preference *against the SLR route* for any future passenger rail to Lewiston. Given the City's documented preference *not* to proceed with the Ocean Gateway route (i.e., the Portland-to-Yarmouth section of the SLR), and preference to see potential rail on the CSX line, an interim trail aligns best with Portland's interests.

Also, [Maine's Climate Action Plan](#) calls for using "available infrastructure" and "reducing carbon emissions" and rail trails fit the bill. There are several kinds of rail trail with the two most common being "rail with trail" (a trail next to the tracks) and "trail until rail" (a trail that replaces the tracks with a trail that may be converted back to rail when needed through a legal process known as "[railbanking](#)"). In the case of the Casco Bay Trail, the only feasible path forward is "trail until rail".

- Cost: **Trail Until Rail (paved) = \$55M** vs Rail With Trail (paved) = \$94M
- Trail Until Rail: best value and the corridor is protected in perpetuity via [railbanking](#).
- Rail With Trail: not feasible in this corridor because of environmental impacts due to intermittent narrowing of the right of way

If, indeed, the City of Portland wants to support equitable transportation, environmental justice, economic impact opportunities, and public health, a comprehensive active transportation policy checks all the boxes. Climate change has elevated Maine's active transportation imperative from desirable to essential and urgent. Active transportation infrastructure enables emission-free transportation, outdoor recreation, and improved public health. Combine this with Vision Zero policy, and we're on our way to reducing or eliminating traffic crash fatalities. In 2022, 179 Mainers died from preventable traffic crashes and a separated facility such as the Casco Bay Trail would provide miles of safe connectivity to local amenities, neighborhoods, and schools.

Nothing is safer, nothing is cleaner, more affordable, more accessible, or more equitable, than a car-free trail for walking and biking. The proposed [Casco Bay Trail](#) will provide these benefits to the City of Portland and its surrounding neighbors.

Thank you for your time and consideration.

Sincerely,

Paul Drinan
Westbrook, Maine
Board member, [Mountain Division Alliance](#)
Leadshipship Team, [Maine Trails Coalition](#)
Member, [Rails to Trails Conservancy](#)



Troy Moon <thm@portlandmaine.gov>

Rail Use Advisory Committee Discussion

1 message

'patricia barber' via Sustainability Office <sustainabilityoffice@portlandmaine.gov>

Tue, Jan 10, 2023 at 7:50 AM

Reply-To: patricia barber <rugbyvet88@yahoo.com>

To: "sustainabilityoffice@portlandmaine.gov" <sustainabilityoffice@portlandmaine.gov>

Patty Barber 21 King St Hiram ME 04041 207-625-4755

I had sent this yesterday to Mr. Moon, but then read more specifically how to post comments to the committee, and just wanted to be sure it was recorded as part of the packet. I will reattach it here.

January 9th, 2023

To the Portland Sustainability and Transportation Committee Members

On 1/11/23 you will be discussing the RUAC for the Portland to Auburn SLR Rail line.

As a citizen who has been following the RUAC process closely, I would strongly urge you to vote for keeping the tracks in place, or Rail With Trail.

Rail use is actually increasing in Maine. Removing the tracks would be premature and economically damaging to the local economy.

Since 2020, two Class 1 Railroads have started operations in Maine- Canadian Pacific and CSX. There is at this time an active freight lease on this section of the SLR with G&W Railroad.

As noted in the December 2022 Maine State Rail Plan (pg 35) "Railroads are 3-4 times more fuel efficient than trucks. That means moving freight by rail instead of trucks could lower greenhouse gas emissions by up to 75% on average. "

Passenger Rail is also expanding in Maine. The Downeaster is adding a new station stop in West Falmouth. Ridership is expected to top 730,000 by 2030 (MSRP pg 35).

The SLR connects to Ocean Gateway and The Roux Institute- two of the most rapidly expanding areas of Portland.

Commuter Rail opportunities on this line would connect Portland to Auburn, two major population and economic centers. The line includes major suburbs of Greater Portland with great potential to alleviate Portland's housing crunch and related employment issues.

Keeping the tracks would enhance equity in transportation. New Mainers, students, older citizens, and those with disabilities- people who cannot drive or afford a car- could have access to family, employment, health care, and support systems.

Congestion on 95 and 295 would be reduced, along with the resulting savings on emissions and car-related accidents and injuries.

These specific rails were mandated to be bought by the State of Maine through the State Rail Preservation Act specifically for future train use, not for trail use. Tearing up this important infrastructure would forever negate the foresight the State had in realizing the tracks' potential benefit to the people of Maine.

I also acknowledge and understand the trail and bike supporters' voices. In the benefits of outdoor recreation and people-powered transit options. Emotional and physical health, decreased emissions, safe active transportation corridors. These are valid and worthy issues and should be advocated for.

These concerns can be accomplished easily with a Rail With Trail vote. A co-existing trail can connect and expand existing trailways. In fact, many of the trail advocates have voiced support for Rail With Trail- their major argument against it is time. That removing the tracks will expedite getting trails to people sooner. Well, then, let's concentrate on moving

quickly to build co-existing trail infrastructure in the corridor. The RUAC study shows it can be done for a reasonable price. (RUAC report pg 28)

Removing the tracks prematurely, in haste, will not be in Maine's or Portland's best interests. It would appease one group by sacrificing another group's vision and benefits.

A vote for Rail With Trail- saving the existing track infrastructure- would allow a win-win compromise scenario for all involved. Let's move everyone's vision forward.

Please vote Rail With Trail.

Thank you for your consideration,

Patty Barber Hiram Maine



Troy Moon <thm@portlandmaine.gov>

Support for Trail Until Rail

1 message

Steve Linnell <linnellsteve@gmail.com>
To: sustainabilityoffice@portlandmaine.gov

Tue, Jan 10, 2023 at 10:50 AM

Regarding the proposed Casco Bay Trail:
I support an interim trail because I want to see a safe trail heading north that I can bike on.

Steve Linnell
17 Alton Street, Portland, ME
linnellsteve@gmail.com
(207) 776-3341



Troy Moon <thm@portlandmaine.gov>

Portland to Auburn Rail Trail

1 message

Mark Adelson <markb.adelson@gmail.com>

Tue, Jan 10, 2023 at 2:31 PM

To: sustainabilityoffice@portlandmaine.gov

Dear City Councilors and Committee Members, I writing to express my opposition to the recommendation for the "Rail With Trail" from Portland to Auburn. I strongly support the "Trail Until Rail" option. I understand the "Rail With Trail" option seems ideal, if the need and economics for a future rail line ever become reality. However, the cost of this option is far more and ultimately prohibitive. The "Trail Until Rail" option can be built sooner and far less expensive with the benefits of the new trail realized and enjoyed by the communities. Also, the "Trail until Rail" option does not prohibit the future construction of a rail line.

Thank you,
Mark Adelson
Essex Street, Portland

Sent from my iPhone



Troy Moon <thm@portlandmaine.gov>

Rail Use Advisory Discussion - meeting 1/11/2023

1 message

Dan Emery <dan@danielemery.com>

Tue, Jan 10, 2023 at 2:47 PM

To: "sustainabilityoffice@portlandmaine.gov" <sustainabilityoffice@portlandmaine.gov>

Committee Members,

This is comment on the recommendation to proceed with a "trail with rail" option for the SLA Corridor. I submit the Committee should endorse the "rail until trail" option instead.

The right of way is simply too narrow in places to accommodate both a rail and trail. It would require major construction, in some places through wet areas, and likely require acquisition of land.

I am an abutter of the right of way in North Yarmouth, right on the Yarmouth line. Here is the right of way near my property, taken from Yarmouth.

A small icon of a landscape with a tree and a sun, followed by the text "image0.jpeg".

Where does the trail go?

I believe "trail with rail" is a pipe dream which will never happen.

Please put the right of way to use with the "rail until rail" option.

Thank you for considering these comments.

Dan Emery
63 Deer Run Rd
North Yarmouth, ME 04997

Sent from my iPhone

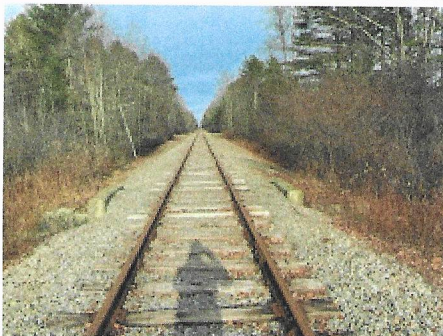


image0.jpeg
216K



Troy Moon <thm@portlandmaine.gov>

rail from ocean gateway north

1 message

free htmlclass <htmlclass2019@gmail.com>

Tue, Jan 10, 2023 at 4:35 PM

To: "thm@portlandmaine.gov" <thm@portlandmaine.gov>

Hello Troy Moon,

Thanks for talking with me just now. Here is my comment to submit.

Please keep the rail in the ground intact please do not rip it up. Please use it for light rail service north. Please explore and take advantage of this option. It would be a great boost to Portland, economical and for our image as a great, conscious, green, sustainable minded city. A great place to visit.

What I hear is that this specific railroad is unique in that it can be used for a light rail service between downtown Portland at oceangate where literally 100s of thousands of square feet of offices are going in and hundreds of condominiums - and connecting to all the commuter towns north along 1-295 and to Lewiston and Auburn.

This is not about Amtrak or service to Boston. It is about this specific publicly owned 30 miles of existing railroad that must not be removed until it is fully evaluated for a passenger train service.

This isn't about linking this to the Boston service and how to get to Thompson's Point when the real issue is we can use this for a whole other purpose providing clean alternative transportation for a wide range of equitable access.

I'm for rail service. It's environmentally moving in the right direction.

Thank you very much,
Karl Rawstron
5 Mayo st
Portland Maine



Project: Berlin Subdivision RUAC Study
Description: Track Infrastructure Assessment
Calculated By: Mike McDonough, Gavin Graham
Checked By: Tim Bryant, Gordon Edington

Project #: 55067.00
Sheet:
Date: 7/13/22
Date: 7/15/22

Berlin Subdivision Segment 1 - Ocean Gate to MP 1.7 (Freight Only)

ITEM	DESCRIPTION	ESTIMATED CONSTRUCTION COST
1	Track & Right-of-Way	\$ 3,790,000
2	Turnouts	\$ -
3	Grade Crossing Improvements	\$ 2,300,000
4	Farm Crossing Improvements	\$ -
5	Undergrade Bridge Improvements	\$ 26,000,000
6	Culvert Improvements	\$ -
7	Overhead Bridge Improvements	\$ -
8	Communications & Signal System Improvements	\$ -
9	Station Platforms & Station Buildings	\$ -
TOTAL =		\$ 32,090,000

MISC. ITEMS AND CONTINGENCY (30%) = \$ 9,627,000

SUBTOTAL = \$ 41,717,000

DESIGN ENGINEERING (10%) = \$ 4,171,700

CONSTRUCTION ADMINISTRATION & ENGINEERING (15%) = \$ 6,257,550

TOTAL = \$ 52,146,250

SAY = \$ 53,000,000



Project: Berlin Subdivision RUAC Study
Description: Track Infrastructure Assessment
Calculated By: Mike McDonough, Gavin Graham
Checked By: Tim Bryant, Gordon Edington

Project #: 55067.00
Sheet:
Date: 7/13/22
Date: 7/15/22

Berlin Subdivision Segment 2 - MP 1.7 to MP 26 (Freight Only)

ITEM	DESCRIPTION	ESTIMATED CONSTRUCTION COST
1	Track & Right-of-Way	\$ 6,390,000
2	Turnouts	\$ 1,470,000
3	Grade Crossing Improvements	\$ 6,030,000
4	Farm Crossing Improvements	\$ -
5	Undergrade Bridge Improvements	\$ 5,020,000
6	Culvert Improvements	\$ 2,690,000
7	Overhead Bridge Improvements	\$ -
8	Communications & Signal System Improvements	\$ -
9	Station Platforms & Station Buildings	\$ -
TOTAL =		\$ 21,600,000

MISC. ITEMS AND CONTINGENCY (30%) = \$ 6,480,000

SUBTOTAL = \$ 28,080,000

DESIGN ENGINEERING (10%) = \$ 2,808,000

CONSTRUCTION ADMINISTRATION & ENGINEERING (15%) = \$ 4,212,000

TOTAL = \$ 35,100,000

SAY = \$ 36,000,000



Project: Berlin Subdivision RUAC Study
Description: Track Infrastructure Assessment
Calculated By: Mike McDonough, Gavin Graham
Checked By: Tim Bryant, Gordon Edington

Project #: 55607.01
Sheet:
Date: 7/13/22
Date: 7/15/22

Berlin Subdivision Segment 1 - Ocean Gate to MP 1.7 (Passenger)

ITEM	DESCRIPTION	ESTIMATED CONSTRUCTION COST
1	Track & Right-of-Way	\$ 6,930,000
2	Turnouts	\$ 200,000
3	Grade Crossing Improvements	\$ 2,300,000
4	Farm Crossing Improvements	\$ -
5	Undergrade Bridge Improvements	\$ 26,000,000
6	Culvert Improvements	\$ -
7	Overhead Bridge Improvements	\$ -
8	Communications & Signal System Improvements	\$ 1,277,000
9	Station Platforms & Station Buildings	\$ -
TOTAL =		\$ 36,707,000

MISC. ITEMS AND CONTINGENCY (30%) = \$ 11,012,100

SUBTOTAL = \$ 47,719,100

DESIGN ENGINEERING (10%) = \$ 4,771,910

CONSTRUCTION ADMINISTRATION & ENGINEERING (15%) = \$ 7,157,865

TOTAL = \$ 59,648,875

SAY = \$ 60,000,000



Project: Berlin Subdivision RUAC Study
Description: Track Infrastructure Assessment
Calculated By: Mike McDonough, Gavin Graham
Checked By: Tim Bryant, Gordon Edington

Project #: 55067.00
Sheet:
Date: 7/13/22
Date: 7/15/22

Berlin Subdivision Segment 2 - MP 1.7 to MP 26 (Passenger)

ITEM	DESCRIPTION	ESTIMATED CONSTRUCTION COST
1	Track & Right-of-Way	\$ 49,420,000
2	Turnouts	\$ 2,620,000
3	Grade Crossing Improvements	\$ 12,820,000
4	Farm Crossing Improvements	\$ 600,000
5	Undergrade Bridge Improvements	\$ 610,000
6	Culvert Improvements	\$ 2,690,000
7	Overhead Bridge Improvements	\$ -
8	Communications & Signal System Improvements	\$ 62,070,000
9	Station Platforms & Station Buildings	\$ -
TOTAL =		\$ 130,830,000

MISC. ITEMS AND CONTINGENCY (30%) = \$ 39,249,000

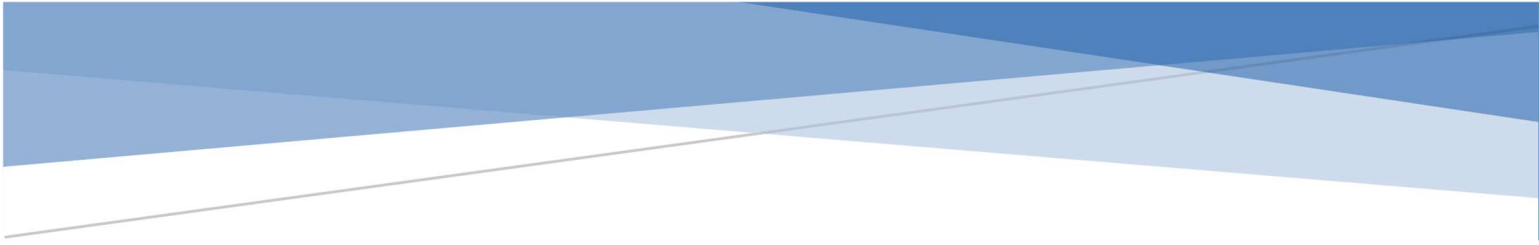
SUBTOTAL = \$ 170,079,000

DESIGN ENGINEERING (10%) = \$ 17,007,900

CONSTRUCTION ADMINISTRATION & ENGINEERING (15%) = \$ 25,511,850

TOTAL = \$ 212,598,750

SAY = \$ 213,000,000



DRAFT

BERLIN SUBDIVISION RAIL CORRIDOR

Demographic & Economic Analysis

RKG

Prepared by
RKG Associates
76 Canal Street
Suite 401
Boston, MA 02143
617.847.8912

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1 - Executive Summary

A. Overview and Purpose

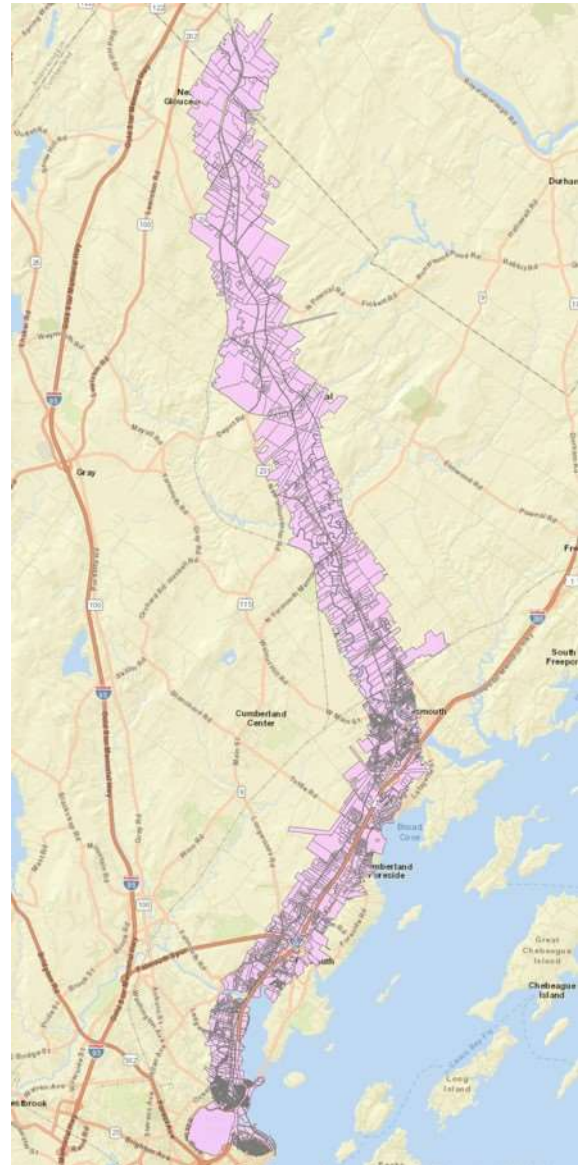
RKG Associates, Inc. (RKG) was retained as a subconsultant by Vanasse Hangen Brustlin, Inc. (VHB), to prepare an assessment of the demographics of potential interim trail¹ users, as well as the economic benefits/impacts of interim trail and/or maintaining/preserving the existing rail corridor for possible restoration of rail uses, for an approximate 26.48-mile corridor of the Berlin Subdivision Rail Corridor in Maine. Figure 1 shows the extent of the Corridor along with an approximate half-mile radius from the centerline of the rail/interim trail, which serves as the study area for this analysis.²

This analysis offers estimates of potential economic benefits of the interim trail options and for maintaining/preserving the existing rail corridor for possible restoration of rail uses. Both consider the construction aspect and ongoing annual maintenance costs³, as inputs for the IMPLAN modeling, as well as benefits that could accrue from users post-construction.

RKG relied on information provided by VHB, socio-demographic data from Esri (a private sector provider of proprietary demographic data and modeling), IMPLAN econometric modeling software, and several prior studies and analyses on the impacts of rails and trails.

RKG notes that rather than individually cite each reference throughout this report, a listing of the prior research and studies appears in the Appendix. Other reference sources are footnoted and cited where appropriate in the body of this report.

Figure 1 – Berlin Subdivision Rail Corridor



¹ **Note** – throughout this report the term trail per the Maine Department of Transportation, refers to an “interim trail” since, in theory, development of the Berlin Subdivision Rail Corridor could include (1) uses as an interim trail until rail, or (2) uses of rail with an interim trail.

² The Berlin Subdivision Rail Corridor includes portions of the following communities: Auburn, New Gloucester, Pownal, North Yarmouth, Yarmouth, Cumberland, Falmouth and Portland.

³ **Note** - these refer specifically to costs, for maintaining the trail and/or rail infrastructure **only** and do not include any operation costs for potential rail service.

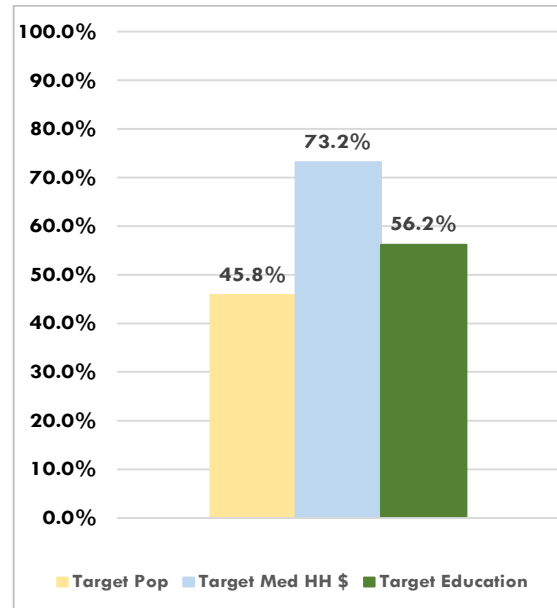
The approach to this analytical overview includes the following components:

- Provide an overview of selected socio-demographic characteristics of the study area.
- Develop estimates of likely annual interim trail usage (trips) along with the associated spending for selected metrics.
- Utilize the IMPLAN econometric model to develop estimates of the direct, indirect, and induced economic impacts associated with interim trail use and/or the maintaining/preserving of the existing rail corridor for possible restoration of rail use - with respect to construction costs (the initial capital investment) and the ongoing annual maintenance costs, of the rail and/or interim trail options (below) and any other resulting economic activity, including the following six (6) alternatives:
 - Interim Trail using existing rail bed (Trail until Rail or “TUR”)
 - TUR – Gravel (path)
 - TUR – Paved (path)
 - Permanent Trail adjacent to existing rail bed (Rail with Trail or “RWT”)
 - RWT – Gravel (path)
 - RWT – Paved (path)
 - Maintain/preserve existing rail corridor for possible restoration of rail uses
 - Potential restoration of freight rail service
 - Potential restoration of passenger rail service

B. Key Findings – Interim Trail Use

This section provides a summary of the key findings of the analysis with respect to estimated impacts as a result of interim trail use for the Berlin Subdivision Rail Corridor. All baseline inputs, assumptions, and the analysis used in their derivation are discussed throughout the remainder of this report and source references are listed in the Appendix. Prior research and studies⁴ have indicated that the potential for utilization of trail amenities is highest among selected sectors of the population exhibiting certain characteristics with respect to age, median household income and level of educational attainment. These are highlighted in Figure 2, for the Berlin Subdivision Rail Corridor and are further discussed in the following summary narratives.

Figure 2 – Berlin Subdivision Rail Corridor – Favored Metrics



Population

Prior research⁵ has indicated that trail users, although prevalent across all age cohorts, are most dominant among the cohort aged 45 to 55 (21.0% of users); those aged 56 to 65 (37.0% of users); and in those in the cohort aged 65 and older (27.0% of users).

The population for the Berlin Subdivision Rail Corridor across these same cohorts account for more than 45.0% of the total population in the study area in the year 2022 (7,007 persons) and as projected for the year 2027 (7,031 persons). The total population in 2022 is 15,293 persons and is projected at 15,410 persons for 2027. This indicates a relatively strong, stable baseline of potential users of the Berlin Subdivision Rail Corridor among local residents.

Educational Attainment

Prior research⁶ has also indicated that the educational attainment among trail users is high, with a strong correlation between college education and usage, noting that 40.0% of users have an undergraduate degree and 27.0% have a post-graduate degree. The educational attainment of the population (aged 25 and older) within this study area indicates that slightly more than 56.0% of the population has a college degree+, further indicating a strong baseline of potential users of the Berlin Subdivision Rail Corridor among local residents.

Household Income

Akin to population and educational attainment, prior research⁷ has noted that trail usage is most prevalent among households with a median household income of \$61,000 to \$100,000

⁴ As noted previously, the reader is directed to the **Appendix** of this report for a listing of other research and studies reviewed and incorporated (where applicable) in this current analysis.

⁵ *Ibid.*

⁶ *Ibid.*

⁷ *Ibid.*

(35.0% of trail users) and those with incomes exceeding \$100,000 (33.0% of trail users). For the Berlin Subdivision Rail Corridor, the number of households earning \$100,000 or more is projected to increase by 855 households (an increase of 28.4%) – also suggesting a strong baseline of potential users of the Berlin Subdivision Rail Corridor among local residents.

In 2022, the numbers of households in these income brackets account for 4,793 units out of a total 6,798 units (or 73.2%). By 2027 the representation is projected to be 5,221 units out of a total 6,867 units (or 76.0%).

Economic Impacts of Interim Trail Use

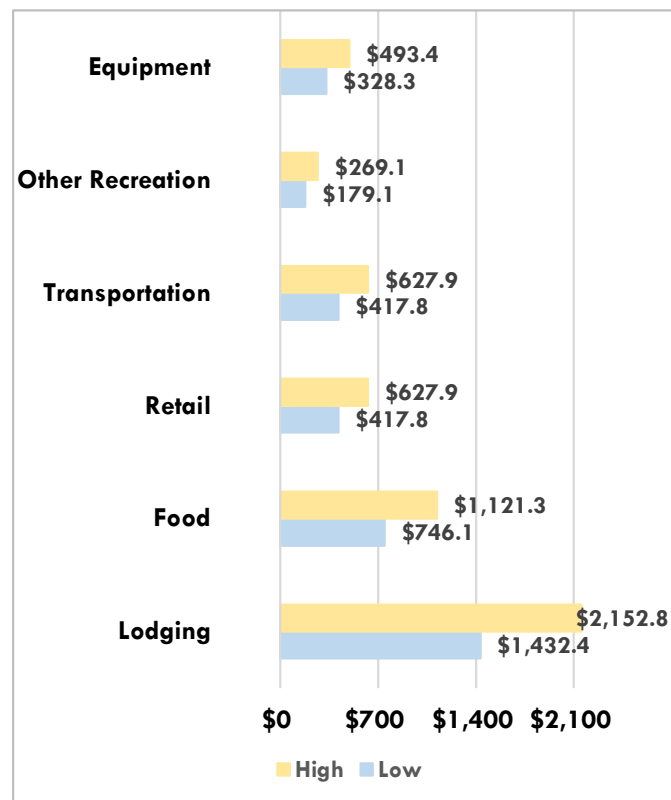
Potential users (meaning number of trips) of the Berlin Subdivision Rail Corridor range from 129,750 to 195,000, annually and represent an “in-area” utilization, realizing that if one person utilizes the interim trail five (5) times then that is considered as five (5) trips.

Adjusting these estimates for projected out-of-town users (estimated 23.0% of total users) results in additional annual trips of 29,843 to 44,850. It is against these out-of-town metrics that the estimates of annual user spending are calculated, ranging from \$3.52 million to as much as \$5.29 million.⁸ The broad categories for spending include lodging, food, retail, transportation, other recreation, and equipment. The low and high annual consumer impacts are highlighted in Figure 3.

RKG next considered economic impacts (direct, induced and indirect) of the additional consumer spending impacts (Table 35 for details) via IMPLAN modeling (discussed in greater detail elsewhere in this report).

- **Low Estimate at \$3,521,415 (annually and in constant dollars)** – the estimated spending of approximately \$3.52 million from all consumer spending categories (as listed previously) results in total output (direct, indirect and induced) of \$5.46 million, translating to \$2.17 million in labor income and 57 jobs. The total value added estimate is \$3.25 million throughout the State of Maine economy – or approximately \$32,500 per 100 trips.
- **High Estimate at \$5,292,300 (annually and in constant**

Figure 3 – Berlin Subdivision Rail Corridor Annual Consumer Spending (\$1,000's)



⁸ Analysis in constant 2022 dollars.

dollars) – the estimated spending of approximately \$5.29 million from all consumer spending (as listed previously) categories) results in total output (direct, indirect and induced) of \$8.20 million, translating to \$3.26 million in labor income and 86 jobs. The total value added estimate is \$4.88 million throughout the State of Maine economy – or approximately \$48,850 per 100 trips.

RKG notes that both the low and high estimates of annual consumer spending reflect the use of the interim trail as a year-round activity and include estimated expenditure across a broad range of participation including hiking, biking, snowshoeing and snowmobiling, as examples.

Potential Health Related (Costs) Benefits

The Centers for Disease Control and Prevention (CDC) estimates⁹ that approximately 24.8% of the adult population in the State of Maine is either inactive or insufficiently active when it comes to health-related endeavors. Further, this leads to direct annual health related costs of \$1,704/capita for those considered inactive and \$846/capita for those considered insufficiently active.

If we conservatively assume that 5.0% of the target population within the Berlin Subdivision Rail Corridor study area were to increase their levels of physical activity based on proximity to the interim trail, this could translate to an annual savings of health-related expenditures totaling \$221,561. These savings could in turn translate to additional annual household spending potential for other non-health related expenditures (Table 1).

Table 1 – Potential Health Benefits from Increased Activity (constant dollars)

Berlin Subdivision Rail Corridor - Health Impacts/ Benefits	Inactive (1)	Insufficiently Active (2)
2022 Target Population	7,007	7,007
At 24.8%	1,738	1,738
More Active - 5.0%	87	87
"Inactive" \$/Capita	\$1,704	
"Insufficiently Active" \$/Capita		\$846
Potential Health Benefit - Annually	\$148,055	\$73,506

Source: U.S. Census Bureau, Esri, ACS, CDC and RKG (2022)

(1) Inactive – respondents to a CDC survey indicating that they engaged in no leisure-time physical activity within the last month.

(2) Insufficiently Active - respondents to a CDC survey indicating that they engaged in minimal leisure-time physical activity within the last month.

Potential Property Value Impacts from Interim Trail Proximity

While it is generally accepted that proximity to green space may have a positive impact on residential property values, the research specifically for proximity to a trail and/or rail corridor is less refined. In some instances, residential proximity to active rail lines (only) may actually detract from property values - such as proximity to active freight lines which may have more noise and safety issues as possible impacting factors.

⁹ Carlson, S. A., Fulton, J. E., Pratt, M., Yang, Z., & Adams, E. K. (2015). Inadequate Physical Activity and Health Care Expenditures in the United States. *Progress in Cardiovascular Diseases*, 57(4), 315–323..

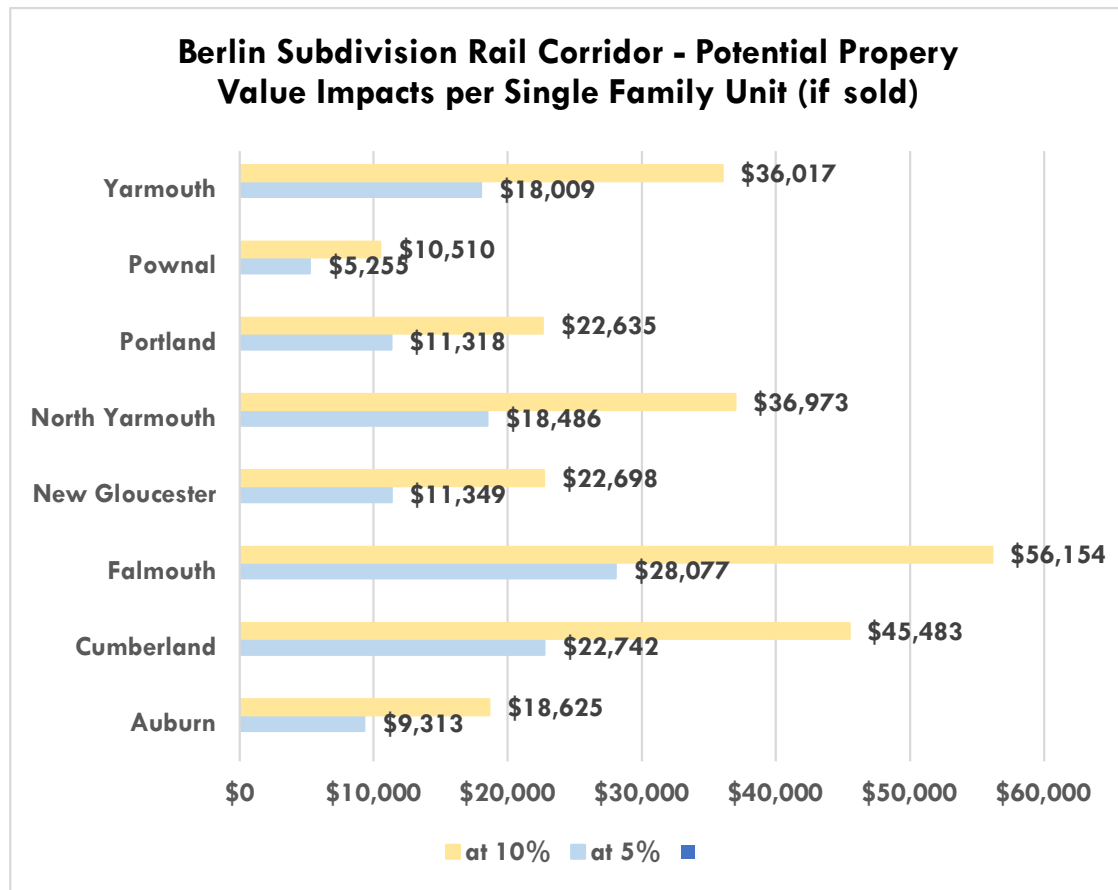
The potential impacts on residential property values with respect to proximity to a trail (only) similarly lack specificity, although some studies suggest a 5.0% to 10.0% positive impact. What has been noted in other similar studies¹⁰ and academic research is that some realtors note residential proximity to trails often reduces the number of days on market (DOM) a listing remains on the market once listed for sale. In this analysis, RKG accepts the potential range of an approximate 5.0% to 10.0% increase in property values but cautions that in RKG's assessment this may only be realized as a property that is proximate to the interim trail comes up for sale and not as a general potential increase in value, otherwise.

In order to offer an estimate of the potential 5.0% to 10.0% impact (Figure 4) in residential property values, RKG reviewed the existing property values of single-family residential units, by location where available, within the Berlin Subdivision Rail Corridor. RKG matched the parcels within the Corridor to assessment and valuation data provided through the State of Maine and Vision Government Solutions and notes the following:

- There are approximately 3,382 single-family residential units in the Corridor and the number of units vary by municipality.
- The average assessed valuation of these units, by municipality, ranges from approximately \$105,100 (Pownal) to as much as \$561,640 (Falmouth). For all units within the Corridor, the overall average assessed valuation is nearly \$347,480.
- A 5.0% increase in valuation against the overall average reflects an increase of \$17,375. A 10.0% increase results in an increase of \$34,750 in valuation. These are graphically presented in Figure 4 with additional details presented in Table 13. Again, noting that these estimates vary by location.

¹⁰ As noted previously, the reader is directed to the **Appendix** of this report for a listing of other research and studies reviewed and incorporated (where applicable) in this current analysis.

Figure 4 – Berlin Subdivision Rail Corridor – Potential Impacts per Single-Family Residential Unit



Again, it is RKG’s assessment these impacts would likely be realized as a property is listed for sale and not as an overall increase in property values across the board. Further, all analyses are reported in constant 2022 dollars and are not inflation adjusted as it is difficult to project with any level of specificity of when any of these properties would come up for sale, if at all.

As a baseline reference, single-family residential sales between 2018 to 2022 YTD, as reported by Redfin (Table 14), indicated that there were 648 units sold within the Berlin Subdivision Rail Corridor at an average selling price of \$552,234/unit. The average square footage (SF) of these units was reported at 2,233 SF/unit (or \$247/SF).

Lastly, considering the five-year sales trends relative to the total inventory of single-family residential units in the Corridor, the approximate average annual turnover in the Corridor is 3.8% of the units.

C. Key Findings - IMPLAN Modeling

In short, IMPLAN modeling provides estimates of the direct, indirect, and induced economic impacts arising from an initial investment in the economy, such as the construction of infrastructure and annual ongoing maintenance costs. The IMPLAN model results are discussed in greater detail in Chapter 4 of this report but are generally summarized next.

The metric of note is value added which provides an estimate of the total value added impacts to the State of Maine economy. Or put another way, the initial investment(s) in construction and the associated ongoing maintenance expenditures, results in a dollar rippling through the State economy or the value added.

RKG notes that, as defined by IMPLAN, the value added component reflects the difference between output (the initial dollar investment) and the costs associated with the intermediate inputs. These latter costs include the purchases of non-durable goods and services such as energy and purchased services that may be used for the production of other goods and services – as opposed to those that are purchased for final consumption. As a result, the value added metric (the statewide ripple) is the sum of employee compensation, proprietor income, taxes on production and imports, and other property income.

- **Employee Compensation** - includes wages and salaries, all benefits (e.g., health, retirement) and payroll taxes (both sides of social security, unemployment insurance taxes, etc.) and is often referred to as fully loaded payroll.
- **Proprietor Income** - consists of payments received by self-employed individuals and unincorporated business owners.
- **Taxes on Production and Imports (TOPI)** – includes sales and excise taxes, customs duties, property taxes, motor vehicle licenses, severance taxes, other taxes, and special assessments.
- **Other Proprietary Income (OPI)** – this represents income generated by industries throughout economies from non-operating activities. Basically, OPI represents gross operating surplus minus proprietor income.

IMPLAN Modeling – Interim Trail Use

Table 2 presents the estimated initial investment or costs of infrastructure for each of the four (4) interim trail use options under consideration. The total¹¹ impacts regarding employment, labor income, value added and output for each alternative are presented and then contrasted against the initial investment (or costs) as depicted in the last column. These estimated costs are in total and are presented irrespective of the potential source of the funds.

Note these are one-time impacts as associated with the capital costs for infrastructure investment.

Table 2 – Summary Comparisons of IMPLAN – Berlin Subdivision Rail Corridor – Construction (\$millions)

SUMMARY COMPARISONS - IMPLAN Models (total) and in rounded \$millions					Estimated
Infrastructure Costs					Initial Costs
Type of Use(s)	Employment	Labor Income	Value Added	Output	Direct
TUR - Gravel	602	\$32.42	\$40.70	\$90.73	\$47.50
TUR - Paved	697	\$37.54	\$47.12	\$105.06	\$55.00
RWT - Gravel	1,141	\$61.43	\$77.11	\$171.92	\$90.00
RWT - Paved	1,196	\$64.36	\$80.80	\$180.13	\$94.30

Source: IMPLAN, VHB and RKG (2022)

Note - constant 2022 dollars in \$millions

Note - totals reflects combination of direct, indirect and induced

Table 3 presents the estimated annual and ongoing costs associated with maintenance for each of the four (4) interim trail use options under consideration. The total¹² impacts regarding employment, labor income, value added and output for each alternative are presented and

¹¹ Total equates to the sum of the direct, indirect and induced impacts.

¹² Ibid.

then contrasted against the estimated annual and ongoing maintenance costs as depicted in the last column. These estimated costs are in total and are presented irrespective of the potential source of the funds.

Note these are annual and ongoing impacts as associated with the ongoing maintenance costs.

Table 3 – Summary Comparisons of IMPLAN Modeling – Berlin Subdivision Rail Corridor (\$millions)

SUMMARY COMPARISONS - IMPLAN Models (total) and in rounded \$millions					Estimated
Annual Maintenance Costs					Annual
Type of Use(s)	Employment	Labor Income	Value Added	Output	Direct
TUR - Gravel	1	\$0.08	\$0.09	\$0.23	\$0.12
TUR - Paved	1	\$0.08	\$0.08	\$0.19	\$0.10
RWT - Gravel	1	\$0.08	\$0.11	\$0.23	\$0.12
RWT - Paved	1	\$0.08	\$0.09	\$0.19	\$0.10

Source: IMPLAN, VHB and RKG (2022)

Note - constant 2022 dollars in \$millions

Note - totals reflects combination of direct, indirect and induced

RKG notes that the IMPLAN inputs and analysis and as reported herein reflect the specific findings and results for each of the six (6) alternative options under consideration. The findings are “stand-alone” for each of the options and should not necessarily be considered as cumulative. However, if the initial investment is in an interim trail use, in such a manner that allows for the potential restoration of rail use at a later date, then these are two (2) separate developments (projects) that may be considered in conjunction – assuming some adjustments on costs (initial investment) of the latter of the two projects as may be applicable.

Table 4 presents the IMPLAN modeling results from the estimated annual spending of trail users, ranging from a low of \$3.52 million to \$5.29 million (annually for both). For both the low and high user spending estimates, approximately 41.0% of the estimated annual spending is for lodging, followed by 21.0% for food and then 12.0% for retail purchases.¹³

Note these are annual and ongoing impacts as associated with interim trail use consumer (user) spending.

Table 4 – Annual Spending – Berlin Subdivision Rail Corridor – Interim Trail Users

Berlin Subdivision Rail Corridor - Annual User Spending	Factor	Low Estimate	High Estimate
Annual Users		129,750	195,000
Out-of-Town Users	23%	29,843	44,850
Annual Spending			
Lodging	\$48	\$1,432,440	\$2,152,800
Food	\$25	\$746,063	\$1,121,250
Retail	\$14	\$417,795	\$627,900
Transportation	\$14	\$417,795	\$627,900
Other Recreation	\$6	\$179,055	\$269,100
Equipment	\$11	\$328,268	\$493,350
TOTAL	\$118	\$3,521,415	\$5,292,300

Source: RKG (2022)

¹³ This analysis assumes that the interim trail activity would be year-round and include, as examples, a mix of hiking, biking, snowshoeing, snowmobiling and other recreation related outdoor activities as would be possible and supported by an interim trail.

RKG notes that while snowmobiling use may be a recreational activity associated with the interim trail use, such activity may not necessarily be appropriate and/or desired by local and adjacent communities. RKG notes that the expenditures associated with snowmobilers may often be higher when compared to non-snowmobile trail users.¹⁴ Part of this discrepancy may be due to snowmobiler party expenditures for equipment, clothing and gear, insurance, club memberships and state license fees, where applicable. If any or all of the Berlin Subdivision Rail Corridor prohibited, or otherwise curtailed, snowmobiling as a recreational use, the impacts presented in Table 4 would likely be diminished.

IMPLAN Modeling – Maintaining/Preserving Existing Rail Corridor for Possible Restoration of Rail Use

Table 5 presents the estimated initial investment or costs of infrastructure for each of the two (2) options for maintain/preserving the rail corridor for potential restoration of rail use options. The total¹⁵ impacts regarding employment, labor income, value added and output for each alternative are presented and then contrasted against the initial investment (or costs) as depicted in the last column. These estimated costs are in total and are presented irrespective of the potential source of the funds.

Note these are one-time impacts as associated with the capital costs for infrastructure investment.

Table 5 – Summary Comparisons of IMPLAN – Berlin Subdivision Rail Corridor – Construction (\$millions)

SUMMARY COMPARISONS - IMPLAN Models (total) and in rounded \$millions					Estimated
Infrastructure Costs					Initial Costs
Type of Use(s)	Employment	Labor Income	Value Added	Output	Direct
Freight Rail	281	\$15.15	\$19.02	\$42.41	\$22.20
Passenger Rail	3,474	\$187.02	\$234.77	\$523.39	\$274.00

Source: IMPLAN, VHB and RKG (2022)

Note - constant 2022 dollars in \$millions

Note - totals reflects combination of direct, indirect and induced

Table 6 presents the estimated annual and ongoing costs associated with maintenance costs for each of the two (2) options for maintain/preserving the rail corridor for potential restoration of rail use options. The total¹⁶ impacts regarding employment, labor income, value added and output for each alternative are presented and then contrasted against the estimated annual and ongoing maintenance costs as depicted in the last column. These estimated costs are in total and are presented irrespective of the potential source of the funds.

Note these are annual and ongoing impacts as associated with the maintenance costs.

¹⁴ For example, the average snowmobile party spent nearly \$90 more than the average non-snowmobiler party, as noted in *The Economic Impact of Spending by Snowmobilers on New Hampshire's Economy as prepared for the New Hampshire Snowmobile Association as prepared by the Institute for New Hampshire Studies - Plymouth State University* (dated 2010-2011).

¹⁵ Total equates to the sum of the direct, indirect and induced impacts.

¹⁶ Ibid.

Table 6 – Summary Comparisons of IMPLAN Modeling – Berlin Subdivision Rail Corridor (\$millions)

SUMMARY COMPARISONS - IMPLAN Models (total) and in rounded \$millions					Estimated Annual
Annual Maintenance Costs					Direct
Type of Use(s)	Employment	Labor Income	Value Added	Output	
Freight Rail	18	\$1.41	\$1.98	\$4.10	\$2.13
Passenger Rail	20	\$1.55	\$2.17	\$4.51	\$2.34

Source: IMPLAN, VHB and RKG (2022)

Note - constant 2022 dollars in \$millions

Note - totals reflects combination of direct, indirect and induced

Table 7 presents the IMPLAN modeling results from the estimated annual spending of passengers if passenger rail use is restored to the Berlin Subdivision Rail Corridor.

Note these are annual and ongoing impacts as associated with rail passenger on-board spending.

Table 7 – Annual Spending – Berlin Subdivision Rail Corridor – Rail Passengers

Berlin Subdivision Rail Corridor - Annual Rail Passenger On-Board Spending	Downeaster Line - September 2021 - August 2022	Berlin Subdivision Rail Corridor (annual 2025)	
		Low Estimate	High Estimate
Total Ridership	432,857	76,650	87,600
% of Passengers Spending (18.2%)	78,780	13,950	15,943
Passenger Spending			
Total	\$646,347	\$114,455	\$130,805
Spending/Total Passengers	\$1.49	\$1.49	\$1.49
Spending/Passengers Spending	\$8.20	\$8.20	\$8.20
TOTAL Passenger Spending - Annually	\$646,347	\$114,455	\$130,805

Source: VHB, NNEPRA and RKG (2022)

Overall Graphic Comparisons

Figure 5 presents a comparison of the capital costs, by type of proposed use, relative to the total value added impacts.

For example, data offered by VHB, indicates that the cost of the infrastructure (capital) investment for freight rail use averages¹⁷ \$22.20 million which then translates into a total (direct, indirect and induced) value added impact of \$19.02 million – which is the total “ripple” effect throughout the State of Maine economy from the initial investment of \$22.20 million (irrespective of the source of funds - State, federal, other).

RKG notes that for each of the alternative use options the value added component represents approximately 86.0% of the initial dollar investment. This is a function of the IMPLAN modeling methodology which, in this analysis, “runs” all infrastructure costs against the mass transit construction industry sector(s). The results would vary, for example, if “run” against bridge and highway construction industry sector(s).

Figure 5 – Comparison of Total Value Added relative to Capital Costs

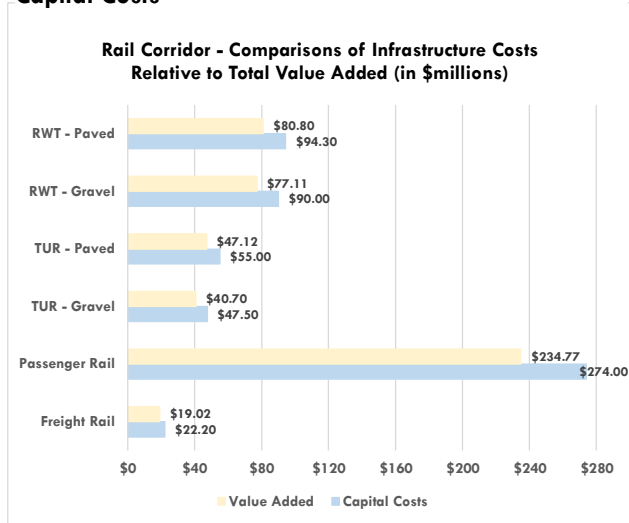
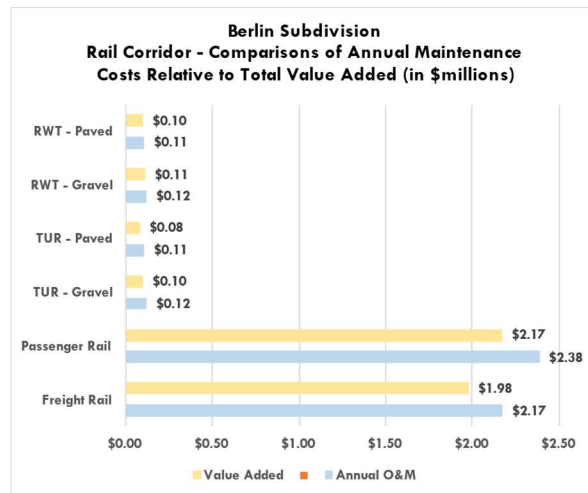


Figure 6 presents a comparison annual and ongoing total value added impacts relative to the annual maintenance costs.

For example, per data offered by VHB, the estimated annual maintenance costs for freight rail at \$2.13 million which then translates into a total (direct, indirect and induced) value added impact of \$1.98 million – which is the total “ripple” effect throughout the State of Maine economy from the annual costs of \$2.13 million (irrespective of the source of funds - State, federal, other).

Figure 6 – Comparison of Total Value Added relative to Annual Maintenance Costs



RKG notes that for each of the alternative use options the value added component represents approximately 93.0% of the annual maintenance costs. This is a function of the IMPLAN modeling methodology which, in this analysis, “runs” all maintenance costs against rail transportation related expenditures. The results would vary, for example, if “run” against retail shopping mall or apartment complex ownership and management expenditures.

¹⁷ Low cost option of \$13.4 million and a high cost option of \$31.0 million = \$22.2 million as an average.

D. Key Findings – Maintaining/Preserving the Existing Rail Corridor for Possible Restoration of Rail Service

Maintaining/preserving the existing rail corridor for possible restoration of rail use provides MaineDOT the opportunity to consider the restoration of rail service in the future. Such rail service could be for either freight or passenger rail. With respect to fiscal and economic impacts, specifically related to the restoration of passenger rail services, RKG drew upon our work for the *Lewiston – Auburn Rail Study*, prepared in co-operation with VHB and in association with the Northern New England Passenger Rail Authority (NNEPRA) and Maine DOT.¹⁸ In that report, RKG addressed the likely fiscal and economic impacts that may be associated with development of physical stations at various locations. For this current study, the sites (locations) of interest include the following:

- Auburn, Maine
- Pineland (East), Maine
- Yarmouth Junction, Maine

RKG notes that in addition to the Station study areas presented next, another development consideration, specific to this analysis, is offered for a platform station in Portland, Maine. As RKG understands this is not to be a “full” station but rather a platform to provide access for passengers. In this study, the level of analysis for the Portland platform is not as extensive with respect to a detailed assessment of fiscal and economic impacts as may be realized from additional and proximate residential and non-residential development. Rather, a Portland platform would serve more as an additional amenity further supporting the development occurring and as may be planned throughout the City of Portland.

Fiscal and Economic Impacts

This analysis specifically assumes that physical rail stations will be built, at the locations identified, as part of any restoration of passenger rail service for the Berlin Subdivision Rail Corridor. Table 8 offers a comparative summary of the fiscal and economic impacts associated with station development of each of three (3) station sites, discussed as follows:

Note that the potential Station Study area locations are for analytical purposes only, as defined by latitudes and longitudes of the approximate location of a Station. These are not intended to represent any final or actual Station location. As RKG understands these remain to be determined.

Auburn ME

Potential new housing ranging from 37 units to 58 units with estimated household retail spending demand of \$898,700 to \$1.43 million. These units could result in additional residential property tax receipts of \$161,405 to as much as \$256,934.

Estimated additional consumer spending demand which could result in 666 SF of retail development and 3,894 SF of non-retail development resulting in an estimated additional property tax receipts of \$22,245.

Potential new (non-retail) employment of 62 positions with annual spending demand of \$99,674.

¹⁸ This report, in its entirety, is available under separate issue. RKG refers the reader to that report for a detailed presentation of the inputs, assumptions and findings – noting that the three (3) potential station locations of interest for the Berlin Subdivision Rail Corridor are summarized herein.

Pineland (East), ME

Potential new housing ranging from 17 units to 26 units with estimated household retail spending demand of \$538,400 to \$871,900. These units could result in additional residential property tax receipts of \$59,511 to as much as \$96,109.

Estimated additional consumer spending demand which could result in 4,580 SF of retail development and 493 SF of non-retail development resulting in an estimated additional property tax receipts of \$11,012.

Potential new (non-retail) employment of eight (8) positions with annual spending demand of \$12,886.

Yarmouth Junction, ME

Potential new housing ranging from 85 units to 172 units with estimated household retail spending demand of \$3.42 million to \$5.42 million. These units could result in additional residential property tax receipts of \$409,677 to as much as \$875,871.

Estimated additional consumer spending demand which could result in 11,342 SF of retail development and 4,340 SF of non-retail development resulting in an estimated additional property tax receipts of \$53,019.

Potential new (non-retail) employment of 74 positions with annual spending demand of \$118,794.

RKG notes that all estimates of development potential, either residential or non-residential, would also depend on a variety of outside factors including the availability (or assemblage) of land parcels to accommodate such development, local zoning ordinances and developer interest in pursuing such development.

Table 8 – Comparative Summary of Fiscal and Economic Impacts by Station Area

Summary Comparison of Potential Benefits - by Station Study Area	Auburn		Pineland East		Yarmouth Junction	
	Low	High	Low	High	Low	High
New Housing (1)	37	58	17	26	85	172
Owner Units	26	43	13	22	60	135
Renter Units	11	15	4	4	25	37
Change in HH						
Spending in \$1,000's	\$898.7	\$1,427.0	\$538.4	\$871.9	\$3,425.9	\$5,416.1
Development Potential	4,559		5,073		15,682	
Retail SF	666		4,580		11,342	
Non-Retail SF (2)	3,894		493		4,340	
Potential Employment (3)	62		8		74	
Potential Spending	\$99,674		\$12,886		\$118,794	
Potential Fiscal Impacts (FY22)	Low	High	Low	High	Low	High
Owner Value (4)	\$5,328.67	\$8,812.80	\$3,830.67	\$6,482.67	\$17,680.00	\$39,779.99
Renter Value (5)	\$1,447.37	\$1,973.69	\$481.72	\$481.72	\$3,010.74	\$4,455.90
Total Residential Value \$1,000's	\$6,776.04	\$10,786.49	\$4,312.38	\$6,964.38	\$20,690.74	\$44,235.89
Estimated Gross Property Tax	\$161,405	\$256,934	\$59,511	\$96,109	\$409,677	\$875,871
Retail Value/SF		\$150		\$150		\$150
Non-Retail Value/SF		\$225		\$225		\$225
Total Non- Residential Value \$1,000's	\$975.87	\$797.95	\$797.95	\$797.95	\$2,677.75	\$2,677.75
Estimated Gross Property Tax	\$23,245	\$11,012	\$11,012	\$11,012	\$53,019	\$53,019

Source: Maine Revenue Services, US Census Bureau and RKG (2022)

(1) - Excludes pipeline housing and reflects change over Baseline

(2) - Excludes manufacturing

(3) - Excludes retail

(4) - Reflects an estimated average (2017-2021) building permit value/unit in \$1,000's - Androscoggin (\$204,950) and Cumberland (\$294,670) - single family homes

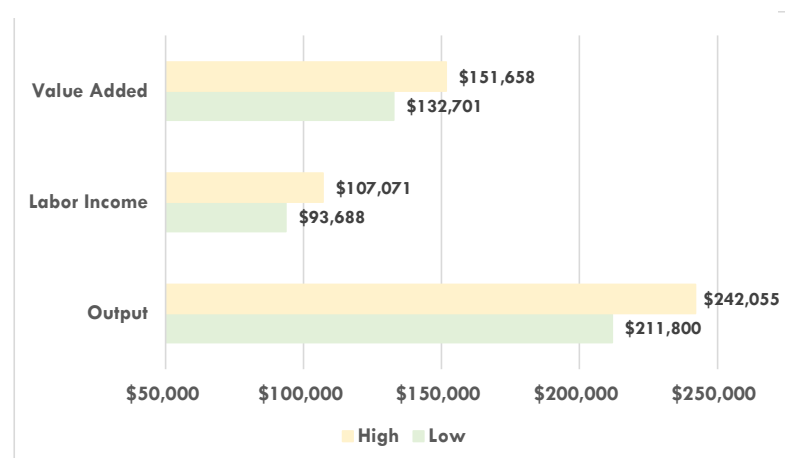
(5) - Reflects an estimated average (2017-2021) building permit value/unit in \$1,000's - Androscoggin (\$131,580) and Cumberland (\$120,430) - 5+multi-family homes

IMPLAN – Impacts of Passenger Rail Spending

Similar to the analysis regarding the consumer spending activity, as a result of interim trail use, the estimated on-board spending of the passengers of a restored rail service would also result in direct, indirect and induced impacts throughout the statewide economy.

RKG relied on information provided by the Northern New England Passenger Rail Authority (NNEPRA) regarding ridership and on-board spending for passengers of the Downeaster which runs from Brunswick, ME to Boston (North Station), MA. The data covers the ridership from September 2021

Figure 7 – IMPLAN Totals for Passenger Spending Impacts



through August 2022 with the assumption that riders on a restored passenger rail service, as is a considered option for the Berlin Subdivision Rail Corridor would spend in a like manner. These finding are presented graphically and in total (direct, indirect and induced) in Figure 7 and in detail in Table 21 and Table 22.

As noted, the metric of interest is the value added metric which presents the total economic impacts (the ripple) throughout the statewide economy.

- **Low Ridership Estimate** – annual (2025) ridership of 76,650 passengers with on-board spending of \$114,455 annually.
- **High Ridership Estimate** – annual (2025) ridership of 87,600 passengers with on-board spending of \$130,805 annually.

Other Potential Benefits of Restoration of Rail Activity

Specifically, with respect to rail use only, either freight or passenger, there are additional but unquantified benefits to be realized, including the following:

- Potential new job creation as related to the physical rail lines and activity such as engineers and conductors.
- Potential additional construction and investment in related rail infrastructure such as switching yards and maintenance facilities, as well as potential development that may arise from station construction (if required) and subsequent other development that may arise from proximity to a physical station. Such station construction and any potential additional development, such as residential and non-residential, would likely further result in local and statewide fiscal and economic benefits.
- Service along the Corridor would potentially provide enhanced safety on public roads through reduced heavy truck traffic, and a potential reduction of the financial burden on public maintenance of the roadways.
- With the rising costs of fuel, maintenance, and lease/purchase prices for personal automobiles, public transportation can be a more affordable travel option particularly for low- to moderate-income individuals and households. While this savings varies by city, location and type of rail service, it is generally acknowledged that transit use can help reduce the portion of household income utilized for transportation. A potential reduction in household expenditures for transportation could translate to greater income availability for housing, consumer spending, education, childcare, healthcare, and other annual household expenditures that are non-transportation related.
- Resulting energy and emission reductions as rail transit achieves energy use reductions and lowers emissions in two ways. First, rail transit consumes less energy (in British Thermal Units or BTU)¹⁹ per passenger-mile than bus or automobile traffic. Second, since rail transit reduces congestion, it leverages even further reductions in fuel use and

¹⁹ BTU is generally defined as the amount of heat (or energy) required to raise the temperature of one pound of water by one degree Fahrenheit.

emissions associated with non-rail travel. A study²⁰ of transit energy consumption found that automobile travel results in the most inefficient energy use with an average consumption of more than 5,000 BTUs per passenger mile. This compares to the approximate 1,500 BTUs per passenger mile for commuter rail (Figure 8).

While the same study did not provide specific BTU metrics for truck transportation, RKG offers that it is likely that they are similarly inefficient when compared to (as reported) approximately 1,000 BTUs per passenger mile for heavy rail or approximately 1,200 BTUs per passenger mile for light rail.

As RKG understands, the estimated current monetary value of 100 BTUs is equivalent to approximately \$16.68 which compares to \$14.96/100 BTUs a year ago. This represents an increase of \$1.72/100 BTUs or nearly an 11.5% increase in one year. As a result, it reasonable to assume that in the near term the \$costs/100 BTUs will likely continue to increase with rising fuel costs.

Under these inputs, and the comparative BTU metrics presented in Figure 8, the cost savings, on a per passenger mile, between commuter rail transit and automobile transit equates to nearly \$584, as follows:

- Automobile - 5,000 BTUs per passenger mile X \$16.68/100 BTUs = \$834
- Commuter Rail - 1,500 BTUs per passenger mile X \$16.68/100 BTUs = \$250

RKG notes that the above reflects the comparative BTU metrics for differing modes of transportation and/or transit and does not include any comparisons for the potential of any energy reductions and/or lower emissions that may result specifically from the interim trail use options.

Potential Benefits of a Foreign-Trade Zone (FTZ)

It is possible that further economic impacts could be realized (specifically as freight rail use) if the Berlin Subdivision Rail Corridor were an FTZ (also referred to as free-trade zone). As RKG understands, from the HTNB Corporation report cited in the Appendix, the City of Portland serves as the port of entry for an already designated FTZ 263.²¹ Potential benefits to businesses utilizing an FTZ may include many cost savings and reductions as reflected by the following²²:

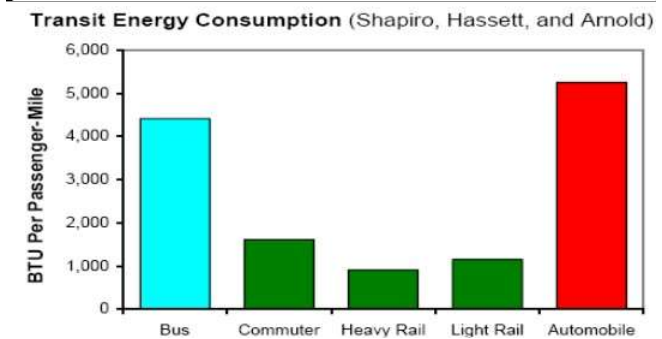
- **Deferral, reduction, or elimination of certain duties** - companies can bring goods into the FTZ without duties or most fees, including exemption from inventory tax.

²⁰ As reported in a research paper entitled *Transportation, Social And Economic Impacts of Light and Commuter Rail*, as prepared by the Texas Transportation Institute of Texas A&M University. Authors – Shapiro, Hassett, and Arnold.

²¹ The FTZ 263 service area reportedly includes Lincoln, Cumberland, Sagadahoc, Androscoggin, Kennebec, Waldo, Knox and Somerset (partial) Counties.

²² As referenced and cited from the report prepared by HNTB Corporation (dated March 2022).

Figure 8 – Comparative BTUs per Passenger Mile – Selected Modes of Transit



- **Relief from inverted tariffs** - in some cases, tariffs on U.S. component items or raw materials have a higher duty rate than the finished product. However, by participating in an FTZ, the U.S. manufacturer pays whichever duty is lower.
- **Duty exemption on re-exports** - since an FTZ is considered outside the commerce of the United States and U.S. Customs, a company importing components or raw material into the FTZ does not pay Customs duty until it enters U.S. commerce. If the good is exported from the FTZ, no Customs duty is due.
- **Duty elimination on waste, scrap, and yield loss** - since a manufacturer operating in an FTZ does not pay duties on imports until its goods leave the FTZ and enter the United States, it essentially is paying for the duties on the raw materials after they have been processed. Thus, duties owed do not include manufacturing by-products, such as waste, reducing the amount of goods taxed.
- **Weekly entry savings** – rather than filing an entry every time a shipment enters the country, an importer operating in an FTZ only needs to file one Customs entry a week, reducing bureaucratic overlaps and costs associated with entry filings. Weekly entries also save on administration expenses and/or customs brokerage fees.
- **Improved compliance, inventory tracking, and quality control** - by bringing goods into an FTZ warehouse, controlled by the company user, they may better identify and classify goods at the warehouse as opposed to at the port at a Customs control location.
- **Indefinite storage** – a company can hold its goods indefinitely in an FTZ until a port opens, or if there are quotas on a good, until they can be entered into U.S. Commerce without falling under quota restrictions.
- **Waived customs duties on zone-to-zone transfers** – an FTZ can be used to manage transshipping operations, saving money on manufacturing processing fees. While most companies are focused on using FTZ's for exports, FTZ's can also be used to take advantage of crossdocking and transferring goods from one FTZ to another without paying Customs duties.

RKG notes that while quantifying any cost savings to companies, or other economic benefits, resulting from the FTZ are beyond the scope of this analysis, it is reasonable to assume such impacts could be significant to area businesses and companies. Additionally, it may also be possible that increased FTZ utilization by area businesses could foster increased demand for development of proximate warehousing and distribution facilities – furthering local fiscal and economic impacts.

2 - Interim Trail Use

A. Existing Conditions

This chapter presents RKG’s review of the selected metrics associated with the Berlin Subdivision Rail Corridor, traversing from Auburn (ME) to Portland (ME), approximately 26.48-miles and reflecting an approximate one-half mile radius (from the centerline) about the Corridor.

Population

The estimated 2022 population of the Berlin Subdivision Rail Corridor is 15,293 persons and is projected to increase by 0.8% by 2027 to 15,410 persons (Table 9). Prior research has indicated that trail users, although prevalent across all age cohorts, are most dominant among the cohort aged 45 to 55 (21.0% of users); those aged 56 to 65 (37.0% of users); and in those in the cohort aged 65 and older (27.0% of users). For the Berlin Subdivision Rail Corridor, the population in these cohorts is estimated at 7,007 persons in 2022 and projected to increase by 0.3% by 2027 to 7,031 persons. While this overall projected growth factor may be considered nominal, nonetheless the population in these cohorts account for more than 45.0% of the total population for both time periods.

RKG notes that this is not to imply that the users of the Berlin Subdivision Rail Corridor will necessarily be only among those in these age cohorts, but rather that experiences from elsewhere imply the population in these cohorts are the most likely to take advantage of the amenities offered by an interim trail.

Table 9 – Population within the Berlin Subdivision Rail Corridor

Berlin Subdivision Rail Corridor - Population by Age Cohort	2022	2027	Percent Change
Total Population	15,293	15,410	0.8%
19 and under	3,163	2,979	-5.8%
20 to 44 years	5,123	5,400	5.4%
45 to 54 years	1,901	1,761	-7.4%
55 to 64 years	2,026	1,854	-8.5%
65 and older	3,080	3,416	10.9%
Target Cohorts	7,007	7,031	0.3%
as a percent of Total	45.8%	45.6%	

Source: U.S. Census Bureau, Esri and RKG (2022)

Educational Attainment

Prior research has also indicated that trail users tend to have a higher level of educational attainment, with 40.0% having an undergraduate degree and 27.0% with a post-graduate degree. The educational attainment of the population (aged 25 and older) within the Berlin Subdivision Rail Corridor is generally high at slightly more than 56.0% (Table 10) of the population with college+ degrees, further indicating a strong base of potential users of the Berlin Subdivision Rail Corridor.

RKG notes that this is not to imply that the users of the Berlin Subdivision Rail Corridor will be pre-dominantly among the population with a high level of educational attainment, but rather that experiences from elsewhere

imply that those with a high level of educational attainment are the most likely to take advantage of the amenities offered by an interim trail.

Table 10 – Educational Level of Berlin Subdivision Rail Corridor Population

Berlin Subdivision Rail Corridor - Educational Attainment	2016-2020 (1)	% of 25+ Population
Total Population (25 and older)	11,371	56.2%
Undergraduate degree	3,714	32.7%
Masters degree	1,940	17.1%
Professional and Doctorate degree	736	6.5%

Source: U.S. Census Bureau, Esri, ACS and RKG (2022)

(1) American Community Survey (ACS) data

Household Income

Similar to the overall population, the median household income for those using trails spans all income brackets. However, prior research reports note that approximately 35.0% of the households have median incomes of \$61,000 to \$100,000, and another 33.0% have median household incomes exceeding \$100,000. Combined, these account for more than two-thirds of likely users as indicated by median household incomes.

For the Berlin Subdivision Rail Corridor, the percent of households²³ with incomes exceeding \$50,000 accounted for 73.0% of all households in 2022 and is projected to grow to 76.0% by 2027. This represents growth of 5.0% percent among these households, well above the projected growth of all households at 1.0% over the same time (Table 11). All of the projected growth is among households earning \$100,000 or more. Overall, median household income is projected to increase by nearly 26.0% or more than \$22,000 for all households in the Berlin Subdivision Rail Corridor.²⁴

RKG notes that this is not to imply that the users of the Berlin Subdivision Rail Corridor will be pre-dominantly among those households with high median household income levels, but rather that experiences from elsewhere imply that such households are the most likely to take advantage of the amenities offered by the interim trail.

²³ As the clustering of median household income data, by Esri, does not exactly match those indicated in prior research, RKG has opted to report those exceeding \$50,000 in this analysis.

²⁴ RKG notes that while this dollar increase in median household income may appear to be an aggressive projection, that data offered by Esri indicates a total decline of 546 households with incomes of less than \$75,000 and a total increase of 616 households with incomes exceeding \$75,000 over the 2022 to 2027 time period. As a result, the overall median household income (all households) is heavily impacted by the decrease in the former and the increase in the latter.

Table 11 – Median Household Income for the Berlin Subdivision Rail Corridor

Berlin Subdivision Rail Corridor - Median Household Income	2022	2027	Percent Change
Total Households	6,798	6,867	1.0%
under \$50,000	1,824	1,646	-9.8%
\$50,000 to \$75,000	1,059	691	-34.7%
\$75,000 to \$100,000	903	664	-26.5%
\$100,000 and over	3,011	3,866	28.4%
Median Household Income	\$87,566	\$110,046	25.7%
Target Incomes	4,973	5,221	5.0%
as a percent of Total	73.2%	76.0%	

Source: U.S. Census Bureau, Esri and RKG (2022)

B. Fiscal and Economic Impacts

The following section summarizes the estimated fiscal and economic impacts associated with an interim trail use of the Berlin Subdivision Rail Corridor.

Economic Impacts of Interim Trail Usage

Preliminary estimates of annual usage (trips) of the Berlin Trail Corridor provided by VHB range from a low of 129,750 persons to a high of 195,000 persons. The economic impact, or the spending of these annual users, is best reflected by those users that are out-of-state which prior research²⁵ suggests is typically about 23.0% of all trail usage. Applying this factor results in an annual estimate of 29,843 users to as many as 44,850 users. RKG calculated estimated annual spending for these out-of-town users, for specific activities (Table 12). Under these inputs and assumptions, the estimated average annual spending among out-of-state Berlin Subdivision Rail Corridor users ranges from \$3.52 million to \$5.29 million. For both the low and high user estimate, approximately 41.0% of the estimated annual spending is for lodging, followed by 21.0% for food and then 12.0% for retail purchases.²⁶

²⁵ As noted previously, the reader is directed to the **Appendix** of this report for a listing of other research and studies reviewed and incorporated (where applicable) in this current analysis.

²⁶ This analysis assumes that the interim trail activity would be year-round and include, as examples, a mix of hiking, biking, snowshoeing, snowmobiling and other recreation related outdoor activities as would be possible and supported by an interim trail.

Table 12 – Estimated Annual Spending – Berlin Subdivision Rail Corridor

Berlin Subdivision Rail Corridor - Annual User Spending	Factor	Low Estimate	High Estimate
Annual Users		129,750	195,000
Out-of-Town Users	23%	29,843	44,850
Annual Spending			
Lodging	\$48	\$1,432,440	\$2,152,800
Food	\$25	\$746,063	\$1,121,250
Retail	\$14	\$417,795	\$627,900
Transportation	\$14	\$417,795	\$627,900
Other Recreation	\$6	\$179,055	\$269,100
Equipment	\$11	\$328,268	\$493,350
TOTAL	\$118	\$3,521,415	\$5,292,300

Source: RKG (2022)

Interim Trail Activity and Health Related Benefits

The development of the Berlin Subdivision Rail Corridor, for trail uses, offers an additional outlet for area residents to increase their level(s) of physical activity. An upsurge in such activity can result in an increase in overall health benefits which may then translate into a cost savings, for health related expenditures, to the participants. This potential reduction in health related expenditures may, in turn, translate to an increase in other economic benefits to the State of Maine as households could realize an increase in disposable income (spending potential) otherwise dedicated to health expenditures.

The underlying assumption is that an increase in regular physical activity among an adult population base, which is otherwise considered to be inactive or insufficiently active, results in a reduction in health care spending which could become available for other spending. As noted previously (Table 9) the target cohort population (2022) of the Berlin Subdivision Rail Corridor is 7,007 persons with approximately 1,738 persons considered inactive or insufficiently active.²⁷

The Centers for Disease Control and Prevention (CDC) estimates that inactive adults incur annual health care costs of \$1,704/capita and those considered insufficiently active incur annual health care costs of \$846/capita. Applying these per capita cost metrics to the aforementioned 1,738 persons considered as inactive or insufficiently active could result in the following (as also previously highlighted in Table 1) for a total savings of \$221,561:

- Assuming the total population was considered inactive, a conservative 5.0% transition of this population could result in annual health care savings of approximately \$148,055 (1,738 persons X 5.0% X \$1,704/capita).
- Assuming the total population was considered insufficiently active, a conservative 5.0% transition of this population could result in annual health care savings of approximately \$73,506 (1,738 persons X 5.0% X \$846/capita).

²⁷ This applies a factor of 24.8% against of the target cohort population. This factor is as noted for the State of Maine according to data from the Centers for Disease Control and Prevention.

Potential Property Value Impacts from Interim Trail Proximity

RKG utilized the Berlin Subdivision Rail Corridor (as previously displayed in Figure 1) to extract parcel data for the single-family residential properties within the Corridor. These were then linked to parcel assessment and valuation data, as offered by the State of Maine and Vision Government Solutions²⁸ to develop estimates of the existing single-family residential property values.

Table 13 presents the summary findings from this valuation for each community where data was reported. The number of parcels along with the aggregate valuation (\$ millions) was then translated to an average value per parcel. This value was then increased by 5.0% and 10.0% to reflect a range of the potential increases in property value on an average per parcel basis.

From the reference materials reviewed²⁹ the potential impacts on single-family residential property values with respect to proximity to a trail may range from a positive 5.0% to 10.0%.

It is RKG's assessment that any potential increase in property values, as a result of proximity to an interim trail use, would most likely be realized as a residential property were to come on the market as a for sale property, with such proximity cited as "locational amenity" of the property. RKG does not necessarily consider that local assessing departments would unilaterally increase the property's estimated valuation without some market basis such as comparable sales activity. RKG further notes, as indicated in other research, that it is possible that the estimated impact on residential property values could vary with distance from the trail proper. Other influencing factors to consider, although unmeasured in this analysis, include age of the structure (year built), overall SF of the residence, number of bedrooms/bathrooms and other unit characteristics.

Table 13 – Comparisons of Single-Family Residential Values by Location – Berlin Subdivision Rail Corridor

Summary Residential Values by Town - Berlin Subdivision Rail Corridor					
Single Family Units					
Location	# of Units	Valuation (1)	Average	5%	10%
Auburn	6	\$1.12	\$186,250	\$9,313	\$18,625
Cumberland	338	\$153.73	\$454,833	\$22,742	\$45,483
Falmouth	530	\$297.62	\$561,541	\$28,077	\$56,154
New Gloucester	189	\$42.90	\$226,977	\$11,349	\$22,698
North Yarmouth	284	\$105.00	\$369,726	\$18,486	\$36,973
Portland	1,096	\$248.08	\$226,353	\$11,318	\$22,635
Pownal	45	\$4.73	\$105,098	\$5,255	\$10,510
Yarmouth	894	\$321.99	\$360,172	\$18,009	\$36,017
Totals or Averages	3,382	\$1,175.17	\$347,479	\$17,374	\$34,748

Source: VHB, Vision Government Solutions and RKG (2022)

(1) - in \$ millions

To provide a sense of the single-family residential sales activity among the locations in the Berlin Subdivision Rail Corridor, RKG culled reported sales data (as offered by Redfin) for each community over the 2018 to 2022 (year-to-date) time period (Table 14) noting:

²⁸ This is an independent service that provides tax parcel and assessment records to the general public – not all communities use this service and as a result some data is incomplete for the communities of the Berlin Subdivision Rail Corridor.

²⁹ As noted previously, the reader is directed to the **Appendix** of this report for a listing of other research and studies reviewed and incorporated (where applicable) in this current analysis.

- There was a total of 648 sales reported for single-family residential units, ranging from three (3) units in Pownal to as many as 192 reported for Portland.
- Total sales (dollar values) were reported as nearly \$357.85 million ranging from \$954,000 for Pownal to as much as \$105.60 million reported for Yarmouth.
- On average, where data was reported, the selling price of the 648 units was reported as \$552,234. This ranged from an average of \$318,000/unit (Pownal) to as much as \$694,655/unit (Cumberland).
- These single-family residential units represented nearly 1.45 million SF in total and averaged 2,233 SF/unit for the entire reported inventory.
- For the entire inventory, where reported, the average selling price equates to approximately \$247/SF ranging from \$170/SF (New Gloucester) to as much as \$296/SF (Portland).

Table 14 – Single-Family Residential Sales – Berlin Subdivision Rail Corridor

Summary Residential Sales by Town (2018 to 2022 ytd) - Berlin Subdivision Rail Corridor					
Single Family Residential					
Location	# of Units	Sales Price	Average	SF	\$/SF
Auburn (1)	na	na	na	na	na
Cumberland	77	\$53,488,460	\$694,655	221,833	\$241
Falmouth	141	\$79,969,926	\$567,163	353,855	\$226
New Gloucester	24	\$8,379,000	\$349,125	49,245	\$170
North Yarmouth	35	\$17,438,750	\$498,250	94,875	\$184
Portland	192	\$92,015,510	\$479,247	310,670	\$296
Pownal	3	\$954,000	\$318,000	5,040	\$189
Yarmouth	176	\$105,602,004	\$600,011	411,411	\$257
Total or Average	648	\$357,847,650	\$552,234	1,446,929	\$247

Source: VHB, Redfin and RKG (2022)

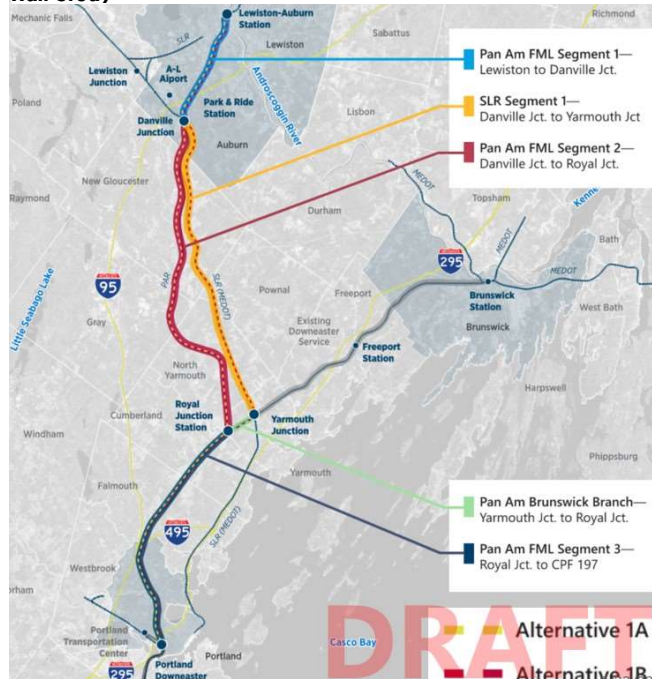
(1) - no single family residential sales reported inside the Berlin Rail Corridor

3 - Maintaining/Preserving of the Existing Rail Corridor for Possible Restoration of Rail Service

One of the development options under consideration, for the Berlin Subdivision Rail Corridor, is maintain/preserving the existing rail corridor for the possible restoration of rail use. This includes a possible the restoration of passenger rail services. Elsewhere in this report, RKG has addressed the likely economic impacts (via IMPLAN modeling) that may result from the initial infrastructure (capital) costs associated with maintain/preserving the existing rail corridor for the possible restoration of rail use³⁰ and the annual and ongoing economic impacts (via IMPLAN modeling) arising from estimated maintenance costs.

However, the likely additional fiscal and economic benefits realized from the development of physical Stations along the Berlin Subdivision Rail Corridor is the specific focus of this section.

Figure 9 - Alignment Considerations in the Lewiston-Auburn Rail Study



A. Overview and Purpose

To summarize RKG's findings, from prior work, with regard to the likely fiscal and economic impacts associated with the potential development of commuter rail stations³¹ along a proposed rail alignment(s) (refer to Figure 9) from Lewiston – Auburn, Maine to Portland, Maine – specifically for locations at the Auburn (park & ride), at a location in Pineland (East) and another in Yarmouth Junction.³² The approach to this analysis included the following:

- Define an appropriate study area around each location which are considered less urban and less dense, a 1-,2- and 3-mile radius around each station serves as the study area. While it is reasonable to assume that any future development would, if possible, occur

³⁰ These capital costs for infrastructure investment are for the physical rail line only and do not reflect any costs as may be associated with construction of actual physical Stations.

³¹ This analysis is predicated on the specific assumption, although conceptual at this time, that an actual physical station structure would be developed for each location under consideration.

³² **Auburn** – latitude 44.03751859, longitude -70.2634984. **Pineland (East)** – latitude 43.90086944, longitude -70.23661111. **Yarmouth Junction** – latitude 43.81339536, longitude -70.19400699.

closest to the actual station, a broader 3-mile radius allows for possible assemblages of land to accommodate development activity. For the purposes of this analysis all metrics for these stations are reported at the 3-mile radius taken together.

- Compile baseline and projected (where applicable) metrics of selected socio-economic indicators for each proposed station location.
- Contrast the selected station metrics to comparable metrics for a broader geography, in this case the county.
- Develop estimates of additional development potential (such as residential, commercial, or retail opportunities) for each proposed station location noting that the unknown factor is the availability and or possible assemblage of land to accommodate such development.
- Lastly, to calculate potential fiscal and economic impacts that could result from projected development around each station. This information includes new housing, jobs, spending, and taxes for each station and different station combinations.

B. Baseline Metrics of Station Sites

Selected baseline metrics for each of the three (3) station sites (study areas) considered in this analysis are presented next. These metrics include population, housing, owner home values, median household and per capita income, and business diversity.

Please note that as of the date of the data extraction for the above referenced metrics, the period available from Esri covered the 2021 through 2026 time period.

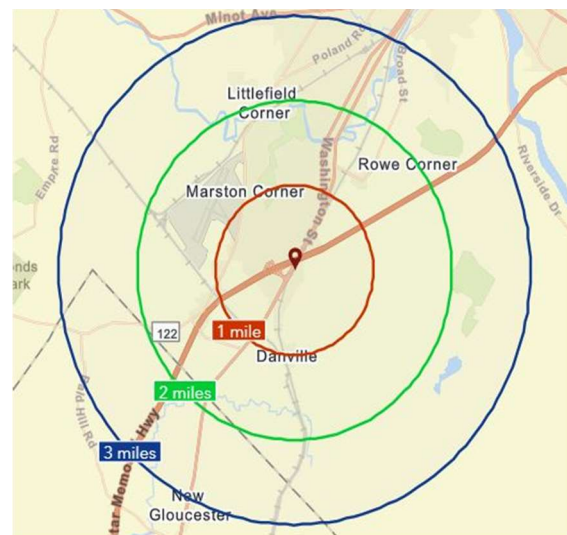
Auburn, ME

The potential location of the Auburn Station site and surrounding study area is highlighted in Figure 10 and summary metrics are presented in Table 15.

Population – the total study area is projected to realize total population growth over the 2021 to 2026 time-period, at 0.9% or about 45 persons. This growth is led by the population aged 65 and older, offsetting the projected population declines in younger cohorts. This is of note as this elderly cohort often represents those in retirement, seeking to downsize their residential requirement and/or opt for assisted living or other health services related to housing.

Housing – the study area housing is projected to experience growth (2021 – 2026) in overall housing units, at 1.5% or approximately 35 units, representing an increase in owner housing and a decline in renter housing.

Figure 10 – Study Area for Potential Auburn Station Site



Owner Home Values – both median owner values and average owner values are projected to increase by 2026, each by more than \$90,000 over the 2021 metrics. The 2026 owner values for the study area housing exceed that for the same countywide measures, by nearly \$41,460 for median value and \$56,660 for average owner value.

Comparative Incomes – both median household income and per capita income levels are projected to increase for the study area and the county. Despite a lesser percentage increase in median household income in the study area, at 8.4% compared to 11.8% for the county, the study area median household income is more than 30.0% greater than that countywide. Per capita income in the study area also exceeds the county by 30.0% with both suggesting a likely greater disposable income spending potential in the study area relative to the county.

Business Diversity - among the selected industry sectors, businesses and employment are generally well diversified for the study area and the county. Although approximately 52.0% of study area businesses and 62.0% of county businesses are concentrated in the retail and services sectors. Also, 37.0% of the study area employment is in these sectors (65.0% countywide) which are generally lower paying when compared to other sectors.

Table 15 presents comparative metrics for the Auburn Station area (3-mile radius) and Androscoggin County.

Table 15 – Selected Metrics – Auburn Station Study Area and Androscoggin County, ME

Selected Comparative Metrics	Auburn Station (1)				Androscoggin Co.				Auburn as % of Co.		
	2010	2021	2026	% Δ 2021-2026	2010	2021	2026	% Δ 2021-2026	2010	2021	2026
Total Population	5,074	5,060	5,105	0.9%	107,702	110,157	111,367	1.1%	4.7%	4.6%	4.6%
aged 20 to 34	795	721	647	-10.3%	19,926	20,555	19,747	-3.9%	4.0%	3.5%	3.3%
aged 35 to 54	1,635	1,418	1,370	-3.4%	31,470	27,462	27,221	-0.9%	5.2%	5.2%	5.0%
65 and older	698	994	1,160	16.7%	15,184	20,660	23,419	13.4%	4.6%	4.8%	5.0%
median age	42.2	45.3	46.8	3.3%	39.8	41.7	42.5	1.9%	106.0%	108.6%	110.1%
Total Housing Units	2,194	2,263	2,298	1.5%	49,090	50,907	51,761	1.7%	4.5%	4.4%	4.4%
owners households	1,651	1,675	1,727	3.1%	28,544	29,178	30,183	3.4%	5.8%	5.7%	5.7%
renter households	429	455	435	-4.4%	15,771	16,731	16,470	-1.6%	2.7%	2.7%	2.6%
Owner Median Value	na	\$208,182	\$298,295	43.3%	na	\$186,029	\$256,839	38.1%	na	111.9%	116.1%
Owner Average Value	na	\$253,729	\$352,606	39.0%	na	\$223,163	\$295,945	32.6%	na	113.7%	119.1%
Median Household \$	na	\$79,453	\$86,117	8.4%	na	\$57,448	\$64,252	11.8%	na	138.3%	134.0%
Per Capita \$	na	\$40,890	\$46,412	13.5%	na	\$31,310	\$35,333	12.8%	na	130.6%	131.4%
Totals (2021)	Firms	Employees	Emp/Firm	% of Firms	Firms	Employees	Emp/Firm	% of Firms	Firms	Emp	Emp/Firm
	303	6,299	20.8	100.0%	3,773	53,446	14.2	100.0%	8.0%	11.8%	146.8%
retail sector	61	560	9.2	20.1%	860	11,206	13.0	22.8%	7.1%	5.0%	70.5%
office sector	15	93	6.2	5.0%	348	3,552	10.2	9.2%	4.3%	2.6%	60.7%
service sector	95	1,769	18.6	31.4%	1,495	23,342	15.6	39.6%	6.4%	7.6%	119.3%
manufacturing sector	31	2,228	71.9	10.2%	151	5,965	39.5	4.0%	20.5%	37.4%	181.9%
other	101	1,649	16.3	33.3%	919	9,381	10.2	24.4%	11.0%	17.6%	159.9%

Source: Esri and RKG (2022)

(1) 3-mile radius about the potential Station location

na - data suppressed or otherwise unreported

Pineland (East), ME

While two separate locations were presented for the *Lewiston-Auburn Rail Study*, for a potential Pineland Station(s), it is the Pineland East Station location that is addressed in this current analysis (refer to Figure 11 and to Table 16).

Population – both the study area and the county are projected to realize total population growth over the 2021 to 2026 time-period, at similar rates with the study area accounting for 0.8% of the county population. Overall total projected population growth in the study area is 113 persons as compared with nearly 13,675 countywide.

Leading the projected population growth in the study area is the cohort of persons 65 and older, at 118 persons and representing a 27.3% increase over 2021. The projected countywide growth in this cohort is 18.6%. As noted previously, those in this cohort are often seeking to downsize their residential requirements and may often desire assisted living or other health services related to housing. Also, of note for the Pineland (East) study area is the projected 6.8% growth (nearly 30 persons) among those aged 20 to 34 years. Persons in this cohort often represent first-time home buyers and/or renters.

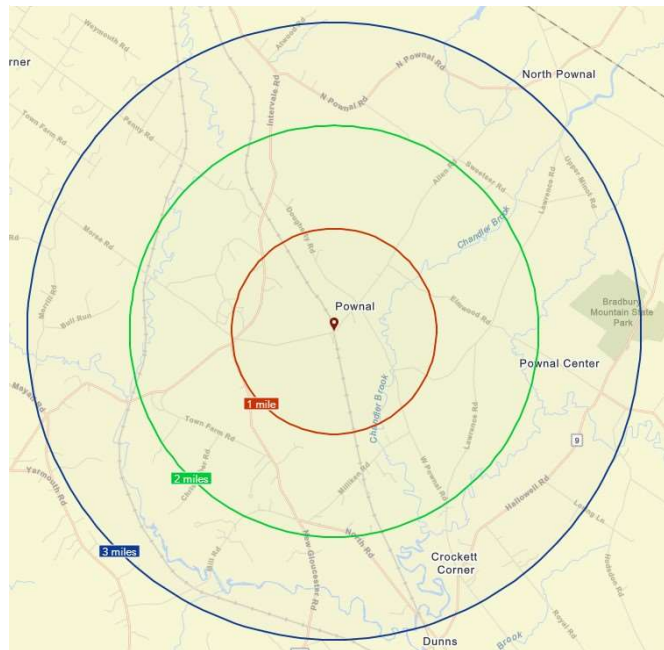
Housing – both the study area and the county are projected to realize growth (2021 – 2026) in overall housing units, at 4.5% each. This equates to 44 units in the study area and about 6,900 units countywide. Both are projected to experience growth in the number of owner households however, the study area is projected to lose renter households. The aforementioned growth in the population cohort aged 20 to 34 years could represent an audience for additional rental development in the study area.

Owner Home Values – in the study area and the county the median value and average value of owner housing are projected to increase with both the median values and average values in the study lagging those countywide by marginal amounts.

Comparative Incomes – both median household income and per capita income levels are projected to increase for the study area and the county at similar rates. These values for both, in the study area, are greater than the same income metrics countywide and more so with respect to median household incomes – possibly indicative of a greater level of discretionary spending income.

Business Diversity - among the selected industry sectors, businesses and employment are generally well diversified for the study area and the county. Approximately 51.6% of study

Figure 11 - Study Area for Potential Pineland (East) Station Site



area businesses and 63.5% of county businesses are concentrated in the retail and services sectors which typically represent lower paying positions when compared to other sectors. Table 16 presents comparative metrics for the Pineland (East) Station area (3-mile radius) and Cumberland County.

Table 16 – Selected Metrics – Pineland (East) Station Study Area and Cumberland County, ME

Selected Comparative Metrics	Pineland East Station (1)				Cumberland Co.				Pineland East as % of Co.		
	2010	2021	2026	% Δ 2021-2026	2010	2021	2026	% Δ 2021-2026	2010	2021	2026
Total Population	2,235	2,404	2,517	4.7%	281,674	302,496	316,170	4.5%	0.8%	0.8%	0.8%
aged 20 to 34	290	397	424	6.8%	51,766	56,538	58,444	3.4%	0.6%	0.7%	0.7%
aged 35 to 54	782	625	599	-4.2%	85,001	77,187	78,702	2.0%	0.9%	0.8%	0.8%
65 and older	224	433	551	27.3%	40,157	59,459	70,494	18.6%	0.6%	0.7%	0.8%
median age	41.5	44.2	44.2	0.0%	41.0	43.4	43.9	1.2%	101.2%	101.8%	100.7%
Total Housing Units	910	998	1,042	4.4%	138,657	152,039	158,941	4.5%	0.7%	0.7%	0.7%
owners households	745	827	875	5.8%	78,545	87,505	93,010	6.3%	0.9%	0.9%	0.9%
renter households	119	114	113	-0.9%	38,794	39,760	40,509	1.9%	0.3%	0.3%	0.3%
Owner Median Value	na	\$328,125	\$374,061	14.0%	na	\$322,496	\$375,747	16.5%	na	101.7%	99.6%
Owner Average Value	na	\$359,522	\$410,584	14.2%	na	\$381,894	\$436,549	14.3%	na	94.1%	94.1%
Median Household \$	na	\$95,407	\$106,568	11.7%	na	\$76,604	\$85,662	11.8%	na	124.5%	124.4%
Per Capita \$	na	\$47,146	\$53,006	12.4%	na	\$43,854	\$49,337	12.5%	na	107.5%	107.4%
Totals (2021)	Firms	Employees	Emp/Firm	% of Firms	Firms	Employees	Emp/Firm	% of Firms	Firms	Emp	Emp/Firm
retail sector	91	591	6.5	100.0%	14,042	197,591	14.1	100.0%	0.6%	0.3%	46.2%
office sector	13	69	5.3	14.3%	3,004	40,345	13.4	21.4%	0.4%	0.2%	39.5%
service sector	5	44	8.8	5.5%	1,340	16,922	12.6	9.5%	0.4%	0.3%	69.7%
manufacturing sector	34	248	7.3	37.4%	5,916	91,545	15.5	42.1%	0.6%	0.3%	47.1%
other	2	15	7.5	2.2%	420	9,703	23.1	3.0%	0.5%	0.2%	32.5%
	37	215	5.8	40.7%	3,362	39,076	11.6	23.9%	1.1%	0.6%	50.0%

Source: Esri and RKG (2022)

(1) 3-mile radius about the potential Station location

na - data suppressed or otherwise unreported

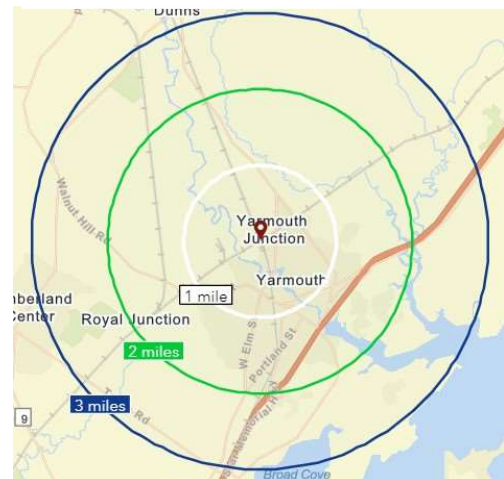
Yarmouth Junction, ME

Please refer to Figure 12 and Table 17 for the location and summary metrics, respectively, of a potential Yarmouth Junction Station site and study area metrics.

Population – both the study area and the county are projected to realize total population growth over the 2021 to 2026 time-period, at 3.1% for the study area (an increase of 375 persons) and 4.5% for the county (a growth of nearly 13,675 persons), with the study area accounting for 3.9% of the county population in 2026, a slight decline.

For the study area and countywide, the projected population growth is greatest among those aged 65 and older, at nearly 480 persons and 11,035 persons, respectively. Again, those in this cohort are often seeking to downsize their residential requirements and may often desire assisted living or other health services related to housing. Also, of note for the Yarmouth Junction study area is the

Figure 12 – Study Area for Potential Yarmouth Junction Station Site



projected 16.2% growth (nearly 275 persons) among those aged 20 to 34 years. Persons in this cohort often represent first-time home buyers and/or renters.

Housing – both the study area and the county are projected to experience growth (2021 – 2026) in overall housing units, at 3.1% and 4.5% respectively. The study area is projected to realize an increase in owner households and a decrease in renter households. However, noting the projected growth in the 20 to 34 age cohort in the study area, the availability of right-priced and right-sized rental housing could positively impact this projected trend.

Owner Home Values – in the study area and the county the median value and average value of owner housing are projected to increase. Despite a greater projected percent increase countywide, for median value and average value, the absolute dollar differences are far greater in the study area at nearly \$75,100 and \$66,100, respectively.

Comparative Incomes – both median household income and per capita income levels are projected to increase for the study area and the county at similar rates. These values for both, in the study area, are greater than the same income metrics countywide, 20.0% for median household income and 15.0% for per capita income.

Business Diversity - both businesses and employment are generally well diversified for the study area and the county and are represented in similar proportions. As has been indicated for many of the other station locations, there is a high concentration of firms and employment in the retail and service sectors which are generally lower paying when compared to other sectors.

Table 17 presents comparative metrics for the Pineland (West) Station area (3-mile radius) and Cumberland County.

Table 17 – Selected Metrics – Yarmouth Junction Station Study Area and Cumberland County, ME

Selected Comparative Metrics	Yarmouth Junction Station (1)				Cumberland Co.				Yarmouth Junction as % of Co.		
	2010	2021	2026	% Δ 2021-2026	2010	2021	2026	% Δ 2021-2026	2010	2021	2026
Total Population	11,590	11,999	12,374	3.1%	281,674	302,496	316,170	4.5%	4.1%	4.0%	3.9%
aged 20 to 34	1,242	1,696	1,970	16.2%	51,766	56,538	58,444	3.4%	2.4%	3.0%	3.4%
aged 35 to 54	3,722	2,961	2,786	-5.9%	85,001	77,187	78,702	2.0%	4.4%	3.8%	3.5%
65 and older	1,804	2,649	3,128	18.1%	40,157	59,459	70,494	18.6%	4.5%	4.5%	4.4%
median age	45.2	48.3	49.0	1.4%	41.0	43.4	43.9	1.2%	110.2%	111.3%	111.6%
Total Housing Units	5,014	5,334	5,502	3.1%	138,657	152,039	158,941	4.5%	3.6%	3.5%	3.5%
owners households	3,566	3,822	3,999	4.6%	78,545	87,505	93,010	6.3%	4.5%	4.4%	4.3%
renter households	1,171	1,142	1,137	-0.4%	38,794	39,760	40,509	1.9%	3.0%	2.9%	2.8%
Owner Median Value	na	\$406,961	\$450,854	10.8%	na	\$322,496	\$375,747	16.5%	na	126.2%	120.0%
Owner Average Value	na	\$463,190	\$502,613	8.5%	na	\$381,894	\$436,549	14.3%	na	121.3%	115.1%
Median Household \$	na	\$98,748	\$109,741	11.1%	na	\$76,604	\$85,662	11.8%	na	128.9%	128.1%
Per Capita \$	na	\$56,250	\$62,608	11.3%	na	\$43,854	\$49,337	12.5%	na	128.3%	126.9%
Totals (2021)	Firms	Employees	Emp/Firm	% of Firms	Firms	Employees	Emp/Firm	% of Firms	Firms	Emp	Emp/Firm
retail sector	543	5,268	9.7	100.0%	14,042	197,591	14.1	100.0%	3.9%	2.7%	68.9%
office sector	107	1,230	11.5	19.7%	3,004	40,345	13.4	21.4%	3.6%	3.0%	85.6%
service sector	45	304	6.8	8.3%	1,340	16,922	12.6	9.5%	3.4%	1.8%	53.5%
manufacturing sector	239	2,274	9.5	44.0%	5,916	91,545	15.5	42.1%	4.0%	2.5%	61.5%
other	19	432	22.7	3.5%	420	9,703	23.1	3.0%	4.5%	4.5%	98.4%
	133	1,028	7.7	24.5%	3,362	39,076	11.6	23.9%	4.0%	2.6%	66.5%

Source: Esri and RKG (2022)

(1) 3-mile radius about the potential Station location

na - data suppressed or otherwise unreported

Portland, ME

As RKG understands, it is likely that a platform station³³ may be developed in the City of Portland to accommodate passenger rail service, if restored, along the Berlin Subdivision Rail Corridor. As a more densely developed location, the study area for this location reflects an approximate 15-minute walk time about the location (as opposed to a three-mile radius). This distance is often considered as a comfortable walking distance for pedestrians (passengers) accessing the platform (refer to Figure 13 and Figure 14). The following baseline metrics are presented in Table 18 and include:

Population – both the study area and the county are projected to realize a population increase, at 4.9% and 4.5%, respectively (2021 - 2026). While the county is projected to experience some population growth among all age cohorts presented, the study area is projected to realize some decline in those aged 20 to 34 years (typically in their family/household formation years). Also of note, for the study area the growth rate for the population in the cohort aged 35 to 54 is well above that for the county. This cohort is typically considered to be in their peak earning spending years. Over all three (3) time periods covered, the study area population is approximately 2.0% of the countywide population.

Housing – housing units within the study area housing are projected to increase 5.8% (nearly 215 units) while the projected countywide growth of 6,900 units represents a 4.5% increase. Both the study area and the county are projected to experience growth in owner and renter households, with the growth rates for the study area exceeding those of the county. As projected for 2026, the study area will be 69.0% renter households as contrasted to 30.0% for the county. It also worth noting that for the study area, across three (3) times periods approximately 70.0% of the households are located within the 10- to 15-minute walk radius – further indicating the density of non-residential development (uses) in the closer in walk times of under 10-minutes.

In RKG's assessment the existing non-residential development and uses in the closer in walk times may prove to be a barrier to opportunities for additional residential development more proximate to the Portland platform site.

Figure 13 – Study Area of Potential Portland Platform Site

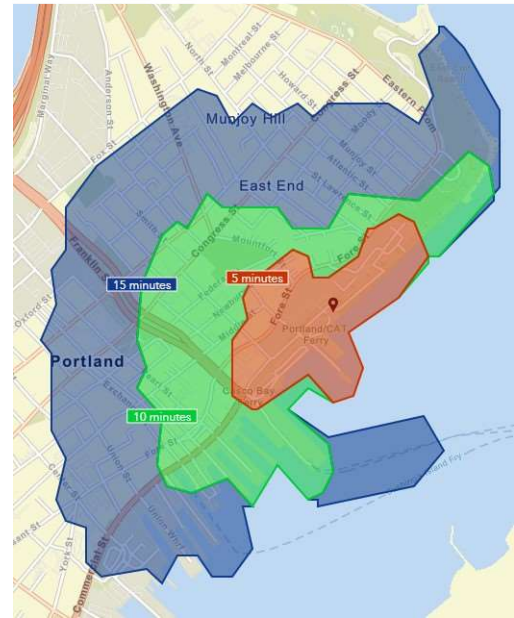
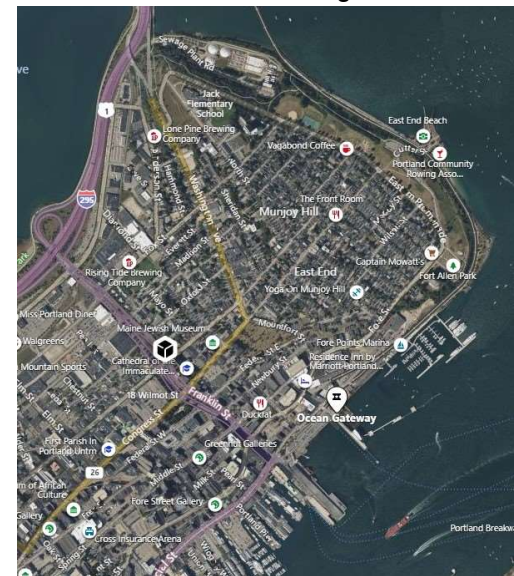


Figure 14 – Aerial View of Potential Portland Platform Site and Surrounding Area



³³ Per representatives of VHB, the potential site is designated as latitude 43.66079 and longitude -70.24568.

Owner Home Values – despite similar projected (2021 -2026) growth rates in housing values (median and average) for the study area and the county, in absolute dollars the county values fall well below the study area values. The study area median housing values exceed the county by \$160,929 and for the average home value the gap is \$175,192.

Comparative Incomes – between 2021 and 2026 the median household income and the per capita income for both the study area and the county are projected to increase. In terms of median household income, the projected increase in the study area is \$11,321 (an 18.8% increase) and for the county \$9,058 (an increase of 11.8%). For 2021 and for 2026, the per capita income in the study area exceeds that for the county, by \$2,513 and \$5,029, respectively. This may reflect, in part, the percent of the population aged 65 and older (relatively with lower incomes) in the county as compared to the study area. In 2021, this cohort accounted for 12.0% of the study area population and 20.0% of the county population. Projected for 2026, these representations are 13.0% and 22.0%, respectively.

Business Diversity – another indication of income disparity is exhibited by the distribution of employment by industry sector. For example, 57.0% of the study area employment is in the retail and services sectors, while for the county this represents 67.0% of the employment – both sectors typically exhibit lower wages when contrasted to other industry sectors. Conversely, in the office sector, typically with higher wages relative to other sectors. The employment in this sector in the study area accounts for 14.0% of total employment relative to 9.0% countywide.

Table 18 – Selected Metrics – Portland Platform Study Area and Cumberland County, ME

Selected Comparative Metrics	City of Portland Platform (1)				Cumberland Co.				Portland Platform as % of Co.		
	2010	2021	2026	% Δ 2021-	2010	2021	2026	% Δ 2021-	2010	2021	2026
Total Population	5,714	6,205	6,512	4.9%	281,674	302,496	316,170	4.5%	2.0%	2.1%	2.1%
aged 20 to 34	2,127	2,202	2,132	-3.2%	51,766	56,538	58,444	3.4%	4.1%	3.9%	3.6%
aged 35 to 54	1,519	1,579	1,801	14.1%	85,001	77,187	78,702	2.0%	1.8%	2.0%	2.3%
65 and older	437	720	816	13.3%	40,157	59,459	70,494	18.6%	1.1%	1.2%	1.2%
median age	32.1	33.9	35.1	3.5%	41.0	43.4	43.9	1.2%	78.4%	78.1%	79.9%
Total Housing Units	3,017	3,674	3,887	5.8%	138,657	152,039	158,941	4.5%	2.2%	2.4%	2.4%
owners households	598	920	1,006	9.3%	78,545	87,505	93,010	6.3%	0.8%	1.1%	1.1%
renter households	2,034	2,169	2,251	3.8%	38,794	39,760	40,509	1.9%	5.2%	5.5%	5.6%
Owner Median Value	na	\$457,689	\$536,676	17.3%	na	\$322,496	\$375,747	16.5%	na	141.9%	142.8%
Owner Average Value	na	\$532,514	\$611,741	14.9%	na	\$381,894	\$436,549	14.3%	na	139.4%	140.1%
Median Household \$	na	\$60,104	\$71,424	18.8%	na	\$76,604	\$85,662	11.8%	na	78.5%	83.4%
Per Capita \$	na	\$46,367	\$54,366	17.3%	na	\$43,854	\$49,337	12.5%	na	105.7%	110.2%
Totals (2021)	Firms	Employees	Emp/Firm	% of Firms	Firms	Employees	Emp/Firm	% of Firms	Firms	Emp	Emp/Firm
retail sector	1,470	19,385	13.2	100.0%	14,042	197,591	14.1	100.0%	10.5%	9.8%	93.7%
office sector	296	3,072	10.4	20.1%	3,004	40,345	13.4	21.4%	9.9%	7.6%	77.3%
service sector	233	2,809	12.1	15.9%	1,340	16,922	12.6	9.5%	17.4%	16.6%	95.5%
manufacturing sector	594	7,918	13.3	40.4%	5,916	91,545	15.5	42.1%	10.0%	8.6%	86.1%
other	29	599	20.7	2.0%	420	9,703	23.1	3.0%	6.9%	6.2%	89.4%
	318	4,987	15.7	21.6%	3,362	39,076	11.6	23.9%	9.5%	12.8%	134.9%

Source: Esri and RKG (2022)

(1) 1.5-minute walk time about the potential Platform location

na - data suppressed or otherwise unreported

C. Fiscal and Economic Impacts

This section presents the summary findings from RKG's analysis (as detailed in the *Lewiston-Auburn Rail Study*) regarding the potential development, residential and non-residential for the Station study areas. To summarize the approach and methodology:

- **Residential Units** – this reflects RKG's estimate of the potential for development of additional housing stock, by tenure, about each of the varying Station Study Area(s). This analysis offers both a low estimate of residential development and a high estimate of residential development. Please note that much of the development may result from a re-positioning of countywide residential development and thereby indicate a transfer of such housing (new units) as opposed to total net new housing.
- **Household Retail Spending Demand** – annual estimates of per household spending demand for a variety of retail goods and services was then applied to the estimated change in households to develop estimates of the annual spending demand represent by the additional housing. Some of this demand could equate to interest in additional (net new) retail development (SF) about the Station Study Area or, at a minimum, represent new consumer spending available to proximate and existing businesses.
- **Development Potential Retail** – this considers the average sales/SF for selected retailing businesses³⁴ and converts these into estimates of potentially supportable SF of development.
- **Development Potential Other** – this assumes an average of 250 SF/employee and is then benchmarked against the estimated non-retail employment increase among selected sectors³⁵ resulting in estimates of potentially supportable SF of development.
- **Potential Employment** – refers to the estimated employment growth, by selected industry, excluding retail positions.
- **Employing Spending** – considers the estimated employment (non-retail) growth and applies an average annual expenditure on selected goods and services as may be purchased by a worker during a typical year.
- **Residential Property Valuations** – a reflection of average building permit values, by tenure, for Androscoggin and Cumberland counties (where appropriate) which then form the basis for estimating resulting **Gross Residential Property Tax** receipts.
- **Non-Residential Property Valuations** – considers average construction cost/SF for retail and non-retail development to serve as a cost-based approach to valuation which in turn forms the basis for resulting **Gross Non-Residential Property Tax** receipts.

RKG notes that both the estimated residential and non-residential valuations are subject to revision, once built and stabilized, as local assessors would typically move to a comparable-sales approach to valuation or an income-based approach to valuation, where applicable and appropriate.

³⁴ Specialty food stores, consignment/second-hand stores, other specialty (niche) retailing and restaurants.

³⁵ Office = finance, real estate, and insurance. Service = health care and other personal/professional.

Station Sites

Apply the above referenced inputs and assumptions, and as relative to the baseline metrics, Table 19 offers a summary of the estimated fiscal and economic impacts for the three (3) Station sites included in this analysis.

RKG notes that all estimates of development potential, either residential or non-residential, would also depend on a variety of outside factors including the availability (or assemblage) of land parcels to accommodate such development, local zoning ordinances and developer interest in pursuing such development.

Auburn, ME

- Estimated new housing development ranging from a total of 37 units to 58 units, mostly owner units.
- The annual household spending demand for these units ranges from a low of \$898,700 to a high of \$1.43 million.³⁶
- Some local (meaning within the Station study area) capture of this spending demand (as much as 35.0%) could amount to nearly 4,560 SF of development inclusive of retail³⁷ and non-retail.³⁸
- Non-retail employment may increase by 62 positions and represent annual employee spending potential of nearly \$99,675.³⁹
- The estimated gross real estate property taxes from the estimated new housing could result in receipts totaling \$161,405 to as much as \$256,934. While gross property taxes from new non-residential development could contribute another \$23,245.

Pineland (East), ME

- Estimated new housing development ranging from a total of 17 units to 26 units, mostly owner units.
- The annual household spending demand for these units ranges from a low of \$538,400 to a high of \$871,900.
- Some local capture of the above demand could amount to nearly 5,075 SF of development inclusive of retail and non-retail.
- Non-retail employment may increase by eight (8) positions and represent annual employee spending potential of nearly \$12,890.

³⁶ The estimated annual per household consumer demand metrics vary by location.

³⁷ Retail includes specialty food services/vendors, consignment and second-hand merchandise, other specialty (niche) retail and restaurants.

³⁸ Office sector includes finance, real estate, and insurance. Service sector includes health care and other personal and professional uses. Manufacturing sector is manufacturing uses.

³⁹ Employee spending metrics are constant at approximately \$1,600/employee annually.

- The estimated gross real estate property taxes from the estimated new housing could result in receipts totaling \$39,511 to as much as \$96,109. While gross property taxes from new non-residential development could contribute another \$11,012.

Yarmouth Junction, ME

- Estimated new housing development ranging from a total of 85 units to 172 units, mostly owner units.
- The annual household spending demand for these units ranges from a low of \$3.42 million to a high of \$5.42 million.
- Some local capture of this spending demand could amount to nearly 15,680 SF of development inclusive of retail and non-retail.
- Non-retail employment may increase by 74 positions and represent annual employee spending potential of nearly \$118,795.
- The estimated gross real estate property taxes from the estimated new housing could result in receipts totaling \$409,677 to as much as \$875,871. While gross property taxes from new non-residential development could contribute another \$53,019.

Table 19 – Summary Comparison of Fiscal and Economic Impacts by Station Location

Summary Comparison of Potential Benefits - by Station Study Area	Auburn		Pineland East		Yarmouth Junction	
	Low	High	Low	High	Low	High
New Housing (1)	37	58	17	26	85	172
Owner Units	26	43	13	22	60	135
Renter Units	11	15	4	4	25	37
Change in HH Spending in \$1,000's	\$898.7	\$1,427.0	\$538.4	\$871.9	\$3,425.9	\$5,416.1
Development Potential	4,559		5,073		15,682	
Retail SF	666		4,580		11,342	
Non-Retail SF (2)	3,894		493		4,340	
Potential Employment (3)	62		8		74	
Potential Spending	\$99,674		\$12,886		\$118,794	
Potential Fiscal Impacts (FY22)	Low	High	Low	High	Low	High
Owner Value (4)	\$5,328.67	\$8,812.80	\$3,830.67	\$6,482.67	\$17,680.00	\$39,779.99
Renter Value (5)	\$1,447.37	\$1,973.69	\$481.72	\$481.72	\$3,010.74	\$4,455.90
Total Residential Value \$1,000's	\$6,776.04	\$10,786.49	\$4,312.38	\$6,964.38	\$20,690.74	\$44,235.89
Estimated Gross Property Tax	\$161,405	\$256,934	\$59,511	\$96,109	\$409,677	\$875,871
Retail Value/SF		\$150		\$150		\$150
Non-Retail Value/SF		\$225		\$225		\$225
Total Non- Residential Value \$1,000's	\$975.87		\$797.95		\$2,677.75	
Estimated Gross Property Tax	\$23,245		\$11,012		\$53,019	

Source: Maine Revenue Services, US Census Bureau and RKG (2022)

(1) - Excludes pipeline housing and reflects change over Baseline

(2) - Excludes manufacturing

(3) - Excludes retail

(4) - Reflects an estimated average (2017-2021) building permit value/unit in \$1,000's - Androscoggin (\$204,950) and Cumberland (\$294,670) - single family homes

(5) - Reflects an estimated average (2017-2021) building permit value/unit in \$1,000's - Androscoggin (\$131,580) and Cumberland (\$120,430) - 5+multi-family homes

Portland Platform Site

As indicated previously, the Portland site will likely accommodate a platform for ease, convenience and safety for rail passengers as opposed to a physical station. Also, the proposed site is centered in an already densely developed location, particularly with non-residential uses (close-in). While it is possible that some opportunities may exist for residential development, in RKG's assessment they are marginal, at least in the near-term, given the existing build-out of the area. This is not to suggest that a Portland Platform would not have some contributory value to the City, but it is more qualitative as opposed to quantitative. For example:

- An increase in passengers at this location could introduce some level of consumer spending demand, particularly before work or after work, which could translate to additional sales to area businesses, notably dining and drinking establishments.
- Improved health conditions as a potential reduction in automobile travel could translate to a reduction in pollutants and emissions.
- In general, a restoration of passenger rail service from Lewiston-Auburn to Portland could serve to provide a linkage for employees from where the employment opportunities (and presumably demand) are greatest in Portland, to where other areas upstate where housing is generally more affordable. Note for example, in the previous section, where median owner housing values (projected for 2026 and in the study areas) range from \$298,300 in Auburn; \$374,100 in Pineland (East); and, \$450,900 in Yarmouth Junction as contrasted to \$536,676 for the Portland Platform location.

Commuting Patterns

Commuting patterns as reported for 2019 and from the U.S. Census Bureau, indicates that approximately 55,730 workers commute from outside of Portland for employment in Portland. Of these, nearly 17,200 commute from distances greater than 24 miles or approximately 31.0% of the inbound commuters.

- The same data indicated that 1,050 Portland residents commute to Lewiston and an additional 815 residents commute to Yarmouth for their place of employment.
- Further, 469 residents commute from Lewiston to Portland; 336 residents commute from Yarmouth to Portland; and 393 residents commute from Falmouth to Portland for their place of employment.

D. Passenger Rail Spending

Estimated ridership for a Lewiston-Auburn-to-Portland Corridor⁴⁰ for Intercity-Style Service, range from a daily low of 210 passengers to a daily high of 240 passengers, as estimated for 2025 ridership levels, reflecting four (4) daily round trips. Based on these inputs the estimated 2025 annual ridership of resorted passenger rail service, as an option for the Berlin Subdivision Rail Corridor, ranges from a low of 76,650 to a high of 87,600.

⁴⁰ As noted in the *Lewiston-Auburn Passenger Rail Service Plan – Transit Propensity Report* (dated August 2018).

RKG relied on information provided by the Northern New England Passenger Rail Authority (NNEPRA) regarding ridership and on-board spending for passengers of the Downeaster which runs from Brunswick, ME to Boston (North Station), MA as presented in Table 20 and noting:

- Downeaster ridership for the period covering September 2021 through August 2022 totaled 432,857 passengers. No distinction is made for the type of traveler or for their location for boarding the train or disembarking the train.
- Per NNEPRA, of the total passengers approximately 18.2% actually made on-board café purchase, or 78,780 passengers.
- On-board café sales totaled \$646,347 over the time period, indicating an average per total passenger purchase of \$1.49, but more realistically of \$8.20 for those actually making purchases.
- In this analysis, RKG assumes that the likely passenger spending of those on a restored passenger rail line, as is an option for the Berlin Subdivision Rail Corridor, will exhibit the same characteristic.
- Under these inputs and assumptions, estimated annual passenger spending (for 2025 ridership) could range from \$114,455 to as much as \$130,805 – which then form the basis for IMPLAN modeling.

Table 20 – Estimate of On-Board Passenger Spending

Berlin Subdivision Rail Corridor - Annual Rail Passenger On-Board Spending	Downeaster Line - September 2021 - August 2022	Berlin Subdivision Rail Corridor (annual 2025)	
		Low Estimate	High Estimate
Total Ridership	432,857	76,650	87,600
% of Passengers Spending (18.2%)	78,780	13,950	15,943
Passenger Spending			
Total	\$646,347	\$114,455	\$130,805
Spending/Total Passengers	\$1.49	\$1.49	\$1.49
Spending/Passengers Spending	\$8.20	\$8.20	\$8.20
TOTAL Passenger Spending	\$646,347	\$114,455	\$130,805

Source: VHB, NNEPRA and RKG (2022)

IMPLAN Modeling – Economic Impacts of Passenger Rail Service

Similar to the analysis regarding the consumer spending activity, as a result of Interim Trail use, the estimated spending of the passengers of a restored rail service would also result in direct, indirect and induced impacts throughout the statewide economy (Table 21 and Table 22). For both the low and high ridership scenarios the IMPLAN input is all other food and drinking places which includes airline and transit food services contractors, cafeterias, coffee carts, etc.

- **Low Estimate of Ridership** – the estimated direct annual passenger spending of \$114,455 results in labor income of \$60,128 and represents 1.77 employment

positions and a value added impact of \$77,523. The direct impacts also result in indirect impacts and induced impacts for the statewide economy. These latter two result in an output value of \$97,345 which then translates to \$33,549 in labor income and 0.63 employment positions with a combined value added factor of \$55,178. The total value added to the statewide economy is \$132,701 under the low ridership scenario.

Table 21 – IMPLAN modeling Passenger Spending – Low Estimate

ESTIMATES of PASSENGER RAIL SPENDING - LOW				
Input Costs	Annual Riders = 76,650 Spending = \$114,455			
Impact	Employment	Labor Income	Value Added	Output
1 - Direct	1.77	\$60,138	\$77,523	\$114,455
2 - Indirect	0.21	\$13,421	\$19,773	\$37,089
3 - Induced	0.39	\$20,129	\$35,405	\$60,255
Total	2.38	\$93,688	\$132,701	\$211,800

Source: IMPLAN, VHB , NNEPRA and RKG (2022) - analysis in constant 2022 dollars

- **High Estimate of Ridership** – the estimated direct annual passenger spending of \$130,805 results in labor income of \$68,729 and represents 2.03 employment positions and a value added impact of \$88,598. The direct impacts also result in indirect impacts and induced impacts for the statewide economy. These latter two result in an output value of \$111,250 which then translates to \$38,342 in labor income and 0.69 employment positions with a combined value added factor of \$63,060. The total value added to the statewide economy is \$151,658 under the high ridership scenario.

Table 22 – IMPLAN modeling Passenger Spending – High Estimate

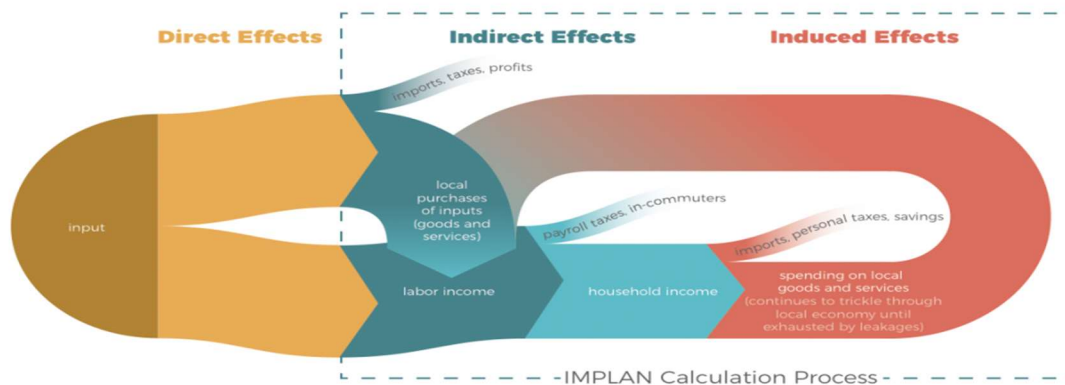
ESTIMATES of PASSENGER RAIL SPENDING - HIGH				
Input Costs	Annual Riders = 87,600 Spending = \$130,805			
Impact	Employment	Labor Income	Value Added	Output
1 - Direct	2.03	\$68,729	\$88,598	\$130,805
2 - Indirect	0.24	\$15,338	\$22,598	\$42,388
3 - Induced	0.45	\$23,004	\$40,462	\$68,863
Total	2.72	\$107,071	\$151,658	\$242,055

Source: IMPLAN, VHB , NNEPRA and RKG (2022) - analysis in constant 2022 dollars

4 - IMPLAN Modeling

IMPLAN is a widely accepted and utilized econometric modeling software that uses an input-output dollar flow matrix. For a specified region, the input-output table accounts for all dollar flows between different sectors of the economy. Using this information, IMPLAN models the way a dollar injected into one sector of the economy (such as construction) is spent and re-spent in other sectors of the economy, generating waves of economic activity, or so-called “economic multiplier” effects. These effects are categorized as direct, indirect and induced effects which encompass direct investment in economic activity, business-to-business spending and household expenditures (Figure 15).

Figure 15 – Flow Chart of the IMPLAN Modeling Concepts



IMPLAN combines this data to generate a series of multipliers for the local economy. The multiplier measures the amount of total economic activity that results from an industry (or household) spending an additional dollar in the local economy. Based on these multipliers, IMPLAN generates a series of tables to show the economic event’s direct, indirect, and induced impacts to gross receipts or outputs (Figure 16).

- **Direct Impacts** – refers to the dollar value of economic activity available to circulate through the economy. In the case of this analysis, the direct impacts are equal to the estimated construction costs for the project, employment compensation associated with employees working at the project site, labor income from new job opportunities following construction and the household spending associated with new households (if applicable).
- **Indirect Impacts** - refers to the “inter-industry impacts of the input-output analysis.” Indirect impacts result from spending by employees working at the project site as well as business spending on goods and services to retail establishments, restaurants, personal service providers, and other firms. These businesses then use the payments they receive to buy equipment and supplies, rent space, pay their employees, etc. These expenditures also have an impact on the economy.

- **Induced Impacts** - refers to the impacts of household spending by the employees generated by the direct and indirect impacts. In other words, induced impacts result from the household spending of employees of business establishments that the new employees patronize (direct) and their suppliers (indirect). The model excludes payments to federal and state taxes and savings based on the geography's average local tax and savings rates. Thus, only the disposable incomes from local workers are included in the model.

The following section presents the summary findings from the various IMPLAN “runs” completed for this analysis. These include the two distinct variations, first for the construction related impacts (one-time impacts) as developed from the cost estimates provided by VHB for each “type” of rail/trail, and second for the annual and ongoing costs associated with maintenance.

The construction cost impacts will likely be realized over the construction period (of unknown length at this time) but are presented in this analysis as if a lump-sum single metric.

RKG specifically notes, for each of the following IMPLAN “runs” and results, the initial investment in construction cost and ongoing maintenance costs does not make a distinction between the source of funding. If, for example, the initial freight rail service costs totaling \$22.20 million were comprised in part of State of Maine funding then those dollars are already in the statewide economy and may not result in the value added estimates. Put another way, if the \$22.20 million included \$10.00 million in State funding then the IMPLAN model should reflect an initial investment of \$12.20 million – however, in this analysis, since a distinction was not provided for source of funds, the entire investment was the input for the IMPLAN modeling.

IMPLAN Modeling – Construction and Maintenance

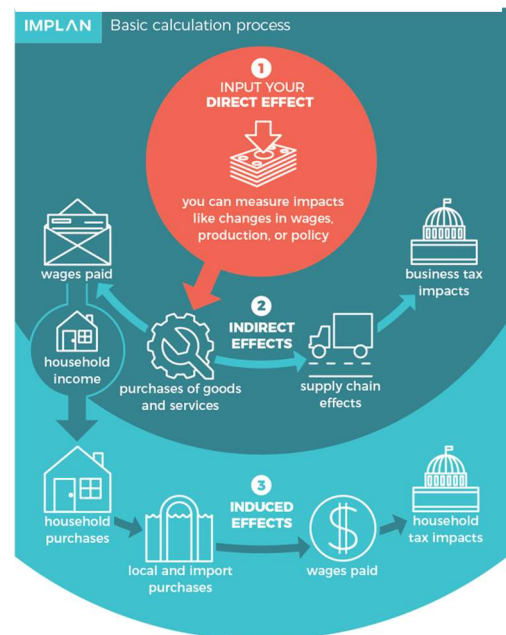
RKG utilized the estimated construction costs (as provided by VHB) for each of the various interim trail and/or rail concepts and combinations (as noted in the Executive Summary) for the Berlin Subdivision Rail Corridor. Infrastructure costs include a contingency allowance (30.0%); design costs (10.0%); administration costs (15.0%); and actual construction costs. RKG also utilized the estimated annual ongoing operating and maintenance costs (as provided by VHB as a cost per track mile) for each of the various interim trail and/or rail concepts and combinations (as noted in the Executive Summary) for the Berlin Subdivision Rail Corridor.

The following tables summarize the IMPLAN “runs” for each of the potential type of use(s). All output is reported in constant 2022 dollars and **rounded to \$millions**.

For reference purposes, the IMPLAN modeling for this section on construction and maintenance spending utilized the following industry sectors as general inputs for initial spending:

- Construction = mass transit construction industry sector(s)
- Maintenance = rail transportation related expenditures

Figure 16 – IMPLAN Calculation Process



- **Restoration of Freight Rail Services** – as presented in Table 23, the infrastructure investment of \$22.20 million (direct output) results in employment of 160 jobs (direct) with labor income of \$8.45 million (direct). The estimated dollar value added to the Maine economy (statewide) from these direct inputs is \$7.87 million. The direct impacts also result in both indirect and induced impacts, totaling \$20.21 million (output) and then translate to 132 in employment with labor income of \$6.70 million. The indirect and induced value added to the statewide economy is \$11.15 million. In total (direct, indirect and induced) the estimated value added to the Maine economy is \$19.02 million.

Table 23 – IMPLAN Modeling – Restoration of Freight Rail Service (rounded \$ millions)

FREIGHT RAIL SERVICE				
Input Costs	Construction Costs for Infrastructure = \$22.20 mill			
Impact	Employment	Labor Income	Value Added	Output
1 - Direct	160	\$8.45	\$7.87	\$22.20
2 - Indirect	57	\$3.37	\$5.30	\$10.25
3 - Induced	65	\$3.33	\$5.85	\$9.96
Total	281	\$15.15	\$19.02	\$42.41

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

The ongoing and annual maintenance costs (Table 24) of \$2.13 million (direct output) results in employment of 6 jobs (direct) with labor income of \$0.75 million (direct). The estimated dollar value added to the Maine economy (statewide) from these direct inputs is \$0.85 million. The direct impacts also result in both indirect and induced impacts, totaling \$1.98 million (output) and then translate to 12 in employment with labor income of \$0.66 million. The indirect and induced value added to the statewide economy is \$1.12 million. In total (direct, indirect and induced) the estimated value added to the Maine economy is \$1.98 million.

Table 24 – IMPLAN Modeling – Restoration of Freight Rail Service (rounded \$ millions)

FREIGHT RAIL SERVICE				
Input Costs	Annual Maintenance Costs = \$2,132,000			
Impact	Employment	Labor Income	Value Added	Output
1 - Direct	6	\$0.75	\$0.85	\$2.13
2 - Indirect	6	\$0.36	\$0.59	\$1.07
3 - Induced	6	\$0.30	\$0.53	\$0.91
Total	18	\$1.41	\$1.98	\$4.10

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

While it was not in RKG's scope of services for this analysis, freight rail utilization coupled with the potential cost and other benefits of a Foreign-Trade Zone (FTZ) could result in additional fiscal and economic benefits assuming that this fosters an increased demand for the development of proximate warehousing and/or distribution facilities.

- **Restoration of Passenger Rail Services** – as presented in Table 25, the infrastructure investment of \$274.00 million (direct output) results in employment of 1,970 jobs (direct) with labor income of \$104.34 million (direct). The estimated dollar value added to the Maine economy (statewide) from these direct inputs is \$97.17 million. The direct impacts also result in both indirect and induced impacts, totaling \$249.39 million (output) and then translate to 1,504 in employment with labor income of \$82.68 million. The indirect and induced value added to the statewide economy is \$137.60 million. In total (direct, indirect and induced) the estimated value added to the Maine economy is \$234.77 million.

Table 25 – IMPLAN Modeling – Restoration of Passenger Rail Service (rounded \$ millions)

PASSENGER RAIL SERVICE				
Input Costs	Construction Costs for Infrastructure = \$274.00 mill			
Impact	Employment	Labor Income	Value Added	Output
1 - Direct	1,970	\$104.34	\$97.17	\$274.00
2 - Indirect	701	\$41.61	\$65.39	\$126.50
3 - Induced	803	\$41.07	\$72.21	\$122.89
Total	3,474	\$187.02	\$234.77	\$523.39

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

The ongoing and annual maintenance costs (Table 26) of \$2.34 million (direct output) results in employment of 6 jobs (direct) with labor income of \$0.82 million (direct). The estimated dollar value added to the Maine economy (statewide) from these direct inputs is \$0.93 million. The direct impacts also result in both indirect and induced impacts, totaling \$2.17 million (output) and then translate to 13 in employment with labor income of \$0.72 million. The indirect and induced value added to the statewide economy is \$1.24 million. In total (direct, indirect and induced) the estimated value added to the Maine economy is \$2.17 million

Table 26 – IMPLAN Modeling – Restoration of Passenger Rail Service (rounded \$ millions)

PASSENGER RAIL SERVICE				
Input Costs	Annual Maintenance Costs = \$2,340,000			
Impact	Employment	Labor Income	Value Added	Output
1 - Direct	6	\$0.84	\$0.95	\$2.38
2 - Indirect	7	\$0.40	\$0.66	\$1.19
3 - Induced	7	\$0.34	\$0.60	\$1.01
Total	20	\$1.55	\$2.17	\$4.51

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

- **Trail until Rail – Gravel (TUR - Gravel)** – as presented in Table 27, the infrastructure investment of \$47.50 million (direct output) results in employment of 342 jobs (direct) with labor income of \$18.09 million (direct). The estimated dollar value added to the Maine economy (statewide) from these direct inputs is \$16.84 million. The direct impacts also result in both indirect and induced impacts, totaling \$43.23 million (output) and then translate to 261 in employment with labor income of \$14.33 million. The indirect and induced value added to the statewide economy is \$23.85 million. In total (direct, indirect and induced) the estimated value added to the Maine economy is \$40.70 million.

Table 27 – IMPLAN Modeling – Trail until Rail – Gravel (rounded \$ millions)

TRAIL until RAIL - GRAVEL				
Input Costs	Construction Costs for Infrastructure = \$47.50 mill			
Impact	Employment	Labor Income	Value Added	Output
1 - Direct	342	\$18.09	\$16.84	\$47.50
2 - Indirect	122	\$7.21	\$11.34	\$21.93
3 - Induced	139	\$7.12	\$12.52	\$21.30
Total	602	\$32.42	\$40.70	\$90.73

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

The ongoing and annual maintenance costs (Table 28) averages \$117,000 (direct output) and results in employment of 0.32 jobs (direct) with labor income of \$0.04 million (direct). The estimated dollar value added to the Maine economy (statewide) from these direct inputs is \$0.05 million. The direct impacts also result in both indirect and induced impacts, totaling \$0.11 million (output) and then translate to 0.67 in employment with labor income of \$0.04 million. The indirect and induced value added to the statewide economy is \$0.06 million. In total (direct, indirect and induced) the estimated value added to the Maine economy is \$0.11 million.

Table 28 – IMPLAN Modeling – Trail until Rail – Gravel (rounded \$ millions)

TRAIL until RAIL - GRAVEL				
Input Costs	Annual Maintenance Costs = \$117,000			
Impact	Employment	Labor Income	Value Added	Output
1 - Direct	0.32	\$0.04	\$0.05	\$0.12
2 - Indirect	0.34	\$0.02	\$0.03	\$0.06
3 - Induced	0.33	\$0.02	\$0.03	\$0.05
Total	1.00	\$0.08	\$0.11	\$0.23

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

- **Trail until Rail – Paved (TUR - Paved)** – as presented in Table 29, the infrastructure investment of \$55.00 million (direct output) results in employment of 395 jobs (direct) with labor income of \$20.94 million (direct). The estimated dollar value added to the Maine economy (statewide) from these direct inputs is \$19.50 million. The direct impacts also result in both indirect and induced impacts, totaling \$50.06 million (output) and then translate to 302 in employment with labor income of \$16.60 million. The indirect and induced value added to the statewide economy is \$27.62 million. In total (direct, indirect and induced) the estimated value added to the Maine economy is \$47.12 million.

Table 29 – IMPLAN Modeling – Trail until Rail – Paved (rounded \$ millions)

TRAIL until RAIL - PAVED					
Input Costs	Construction Costs for Infrastructure = \$55.0 mill				
Impact	Employment	Labor Income	Value Added	Output	
1 - Direct	395	\$20.94	\$19.50	\$55.00	
2 - Indirect	141	\$8.35	\$13.12	\$25.39	
3 - Induced	161	\$8.24	\$14.49	\$24.67	
Total	697	\$37.54	\$47.12	\$105.06	

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

The ongoing and annual maintenance costs (Table 30) averages \$104,000 (direct output) and results in employment of 0.27 jobs (direct) with labor income of \$0.04 million (direct). The estimated dollar value added to the Maine economy (statewide) from these direct inputs is \$0.04 million. The direct impacts also result in both indirect and induced impacts, totaling \$0.09 million, as rounded, (output) and then translate to 0.56 in employment with labor income of \$0.03 million. The indirect and induced value added to the statewide economy is \$0.06 million. In total (direct, indirect and induced) the estimated value added to the Maine economy is \$0.09 million.

Table 30 – IMPLAN Modeling – Trail until Rail – Paved (rounded \$ millions)

TRAIL until RAIL - PAVED					
Input Costs	Annual Maintenance Costs = \$104,000				
Impact	Employment	Labor Income	Value Added	Output	
1 - Direct	0.27	\$0.04	\$0.04	\$0.10	
2 - Indirect	0.29	\$0.02	\$0.03	\$0.05	
3 - Induced	0.28	\$0.01	\$0.03	\$0.04	
Total	0.84	\$0.08	\$0.09	\$0.19	

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

- **Rail with Trail – Gravel (RWT – Gravel)** – as presented in Table 31, the infrastructure investment of \$90.00 million (direct output) results in employment of 647 jobs (direct) with labor income of \$34.27 million (direct). The estimated dollar value added to the Maine economy (statewide) from these direct inputs is \$31.92 million. The direct impacts also result in both indirect and induced impacts, totaling \$81.91 million (output) and then translate to 494 in employment with labor income of \$27.16 million. The indirect and induced value added to the statewide economy is \$45.20 million. In total (direct, indirect and induced) the estimated value added to the Maine economy is \$77.11 million.

Table 31 – IMPLAN Modeling – Rail with Trail – Gravel (rounded \$ millions)

RAIL with TRAIL - GRAVEL				
Input Costs	Construction Costs for Infrastructure = \$90.0 mill			
Impact	Employment	Labor Income	Value Added	Output
1 - Direct	647	\$34.27	\$31.92	\$90.00
2 - Indirect	230	\$13.67	\$21.48	\$41.55
3 - Induced	264	\$13.49	\$23.72	\$40.36
Total	1,141	\$61.43	\$77.11	\$171.92

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

The ongoing and annual maintenance costs (Table 32) averages \$117,000 (direct output) and results in employment of 0.32 jobs (direct) with labor income of \$0.04 million (direct). The estimated dollar value added to the Maine economy (statewide) from these direct inputs is \$0.05 million. The direct impacts also result in both indirect and induced impacts, totaling \$0.11 million, as rounded, (output) and then translate to 0.67 in employment with labor income of \$0.04 million. The indirect and induced value added to the statewide economy is \$0.06 million. In total (direct, indirect and induced) the estimated value added to the Maine economy is \$0.11 million.

Table 32 – IMPLAN Modeling – Rail with Trail – Gravel (rounded \$ millions)

RAIL with TRAIL - GRAVEL				
Input Costs	Annual Maintenance Costs = \$117,000			
Impact	Employment	Labor Income	Value Added	Output
1 - Direct	0.32	\$0.04	\$0.05	\$0.12
2 - Indirect	0.34	\$0.02	\$0.03	\$0.06
3 - Induced	0.33	\$0.02	\$0.03	\$0.05
Total	1.00	\$0.08	\$0.11	\$0.23

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

- **Rail with Trail – Paved (RWT – Paved)** – as presented in Table 33, the infrastructure investment of \$94.30 million (direct output) results in employment of 678 jobs (direct) with labor income of \$35.91 million (direct). The estimated dollar value added to the Maine economy from these direct inputs is \$33.44 million. The direct impacts also result in both indirect and induced impacts, totaling \$85.83 million (output) and then translate to 517 in employment with labor income of \$28.45 million. The indirect and induced value added to the statewide economy is \$47.35 million. In total (direct, indirect and induced) the value added to the Maine economy is \$80.80 million.

Table 33 – IMPLAN Modeling – Rail with Trail – Paved (rounded \$ millions)

RAIL with TRAIL - PAVED					
Input Costs	Construction Costs for Infrastructure = \$94.3 mill				
Impact	Employment	Labor Income	Value Added	Output	
1 - Direct	678	\$35.91	\$33.44	\$94.30	
2 - Indirect	241	\$14.32	\$22.50	\$43.54	
3 - Induced	276	\$14.13	\$24.85	\$42.29	
Total	1,196	\$64.36	\$80.80	\$180.13	

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

The ongoing and annual maintenance costs (Table 34) averages \$104,000 (direct output) and results in employment of 0.29 jobs (direct) with labor income of \$0.04 million (direct). The estimated dollar value added to the Maine economy (statewide) from these direct inputs is \$0.04 million. The direct impacts also result in both indirect and induced impacts, totaling \$0.10 million, as rounded, (output) and then translate to 0.59 in employment with labor income of \$0.04 million. The indirect and induced value added to the statewide economy is \$0.06 million. In total (direct, indirect and induced) the estimated value added to the Maine economy is \$0.10 million.

Table 34– IMPLAN Modeling – Rail with Trail – Paved (rounded \$ millions)

RAIL with TRAIL - PAVED					
Input Costs	Annual Maintenance Costs = \$104,000				
Impact	Employment	Labor Income	Value Added	Output	
1 - Direct	0.29	\$0.04	\$0.04	\$0.11	
2 - Indirect	0.30	\$0.02	\$0.03	\$0.05	
3 - Induced	0.29	\$0.02	\$0.03	\$0.05	
Total	0.89	\$0.08	\$0.10	\$0.20	

Source: IMPLAN, VHB and RKG (2022) - analysis in constant 2022 dollars and in rounded \$millions

IMPLAN Modeling – Economic Impacts of Interim Trail Usage

RKG also utilized IMPLAN modeling to develop estimates of the direct, indirect, and induced impacts from the estimated additional consumer spending activity (as presented in Table 12) ranging from an annual estimate of \$3.52 million to as much as \$5.29 million.⁴¹ The same interpretation of this data, as has been described previously, remains. As before, the focus of the information shown in Table 35 is the value added metrics which indicates the total value added impacts to the State economy from this increase in consumer spending⁴² activity arising from interim trail usage.

Table 35 - Summary Comparisons of IMPLAN Modeling for Additional Consumer Spending (\$ millions)

SUMMARY COMPARISONS - IMPLAN Models (total) (\$millions)				
Low Estimate of Total Consumer Spending = \$3,521,415				
Expenditure Category	Employment	Labor Income	Value Added	Output
Lodging	23	\$1.10	\$1.60	\$2.59
Food	14	\$0.50	\$0.79	\$1.32
Retail	2	\$0.10	\$0.14	\$0.25
Transportation	13	\$0.27	\$0.44	\$0.79
Other Recreation	4	\$0.14	\$0.20	\$0.34
Equipment	1	\$0.05	\$0.09	\$0.16
Totals of Low Estimate	57	\$2.17	\$3.25	\$5.46
High Estimate of Total Consumer Spending = \$5,292,300				
Expenditure Category	Employment	Labor Income	Value Added	Output
Lodging	35	\$1.65	\$2.40	\$3.89
Food	20	\$0.75	\$1.18	\$1.99
Retail	4	\$0.14	\$0.22	\$0.38
Transportation	19	\$0.41	\$0.66	\$1.18
Other Recreation	6	\$0.22	\$0.30	\$0.52
Equipment	1	\$0.08	\$0.13	\$0.25
Totals of High Estimate	86	\$3.26	\$4.88	\$8.20

Source: IMPLAN, VHB and RKG (2022)

Note - constant 2022 dollars in \$millions

- **Low Estimate of Annual Consumer Spending - \$3,521,415** – the estimated spending of approximately \$3.52 million results in total output (direct, indirect and induced) of \$5.46 million, translating to \$2.17 million in labor income and 57 jobs. The total value added estimate is \$3.25 million throughout the State of Maine economy. The greatest impact(s) are estimated to be derived from expenditures in lodging and then followed by food purchases. Whether or not the estimated impacts would result in additional and new development (SF), such as for hotels or restaurants, is uncertain, but they could positively impact existing establishments.

⁴¹ As indicated previously, this analysis assumes that the interim trail activity would be year-round and include, as examples, a mix of hiking, biking, snowshoeing, snowmobiling and other recreation related outdoor activities as would be possible and supported by an interim trail.

⁴² These metrics reflect consumer spending and do not include any estimates of potential interim trail employee or rail employee spending.

- **High Estimate of Annual Consumer Spending - \$5,292,300** – the estimated spending of approximately \$5.29 million results in total output (direct, indirect and induced) of \$8.20 million, translating to \$3.26 million in labor income and 86 jobs. The total value added estimate is \$4.88 million throughout the State of Maine economy. As before, the greatest impact(s) are in lodging and then food purchases. Also, whether or not the estimated impacts would result in new development (SF) is uncertain.

For reference purposes, the IMPLAN modeling for this section on consumer spending utilized the following industry sectors as general inputs for initial spending:

- Lodging = hotels and motels
- Food = restaurant establishments
- Retail = retailing and general merchandise stores
- Transportation = transit and ground passenger transportation services
- Other Recreation = other amusement and recreation industries
- Equipment = wholesale and other durable goods merchandising, especially sport equipment and recreational supplies

Appendix

The following previous studies and reports were reviewed for this current analysis:

- Economic Impact of Eastern Trail – Current Impact and Hypothetical Expansion Scenario as prepared for the Southern Maine Planning and Development Commission as prepared by Camoin Associates (dated November 2021)
- The Mountain Division Feasibility Study: Potential Uses and Economic Benefits-Summary Report as prepared for the Maine Department of Transportation as prepared by HNTB Corporation (dated March 2022)
- The Economic Benefits of the Eastern Trail in Southern Maine (a 2014 survey) as prepared for the Eastern Trail Alliance as prepared by representatives of the Eastern Trail Alliance with assistance from the Rails-to-Trails Conservancy
- An article (appearing in the Vermont Business Magazine (dated December 2021) summarizing selected impacts of the Kingdom Trails in Vermont
- The Northern Forest Canoe Trail:⁴³ An Economic Impact Study as prepared for the Vermont Tourism Data Center as prepared by the University of Vermont (dated 2006-2007)
- The Economic Impact of Spending by Snowmobilers on New Hampshire's Economy as prepared for the New Hampshire Snowmobile Association as prepared by the Institute for New Hampshire Studies - Plymouth State University (dated 2010-2011)
- The Business of Trails: A Compilation of Economic Benefits as prepared by Mississippi River Trail, Inc. – summarizing numerous reports and findings, from a variety of sources, compiled over a multi-year period
- A summary report on the Greater Portland (ME) Active Transportation Arterials (dated June 2022)
- A summary report of the Maine Rail-Trail Plan 2020 – 2030 as prepared by the Maine Trails Coalition (dated January 2021)
- Impacts of Trails and Sidewalks on Home Values, prepared by the heartbeat of Hampton Roads (VA) Transportation Planning Organization (dated November 2020)
- Bicycling Means Business – The Economic Benefits of Bicycle Infrastructure, prepared by Darren Flusche, Policy Director of the League of American Bicyclists (updated July 2012)

⁴³ The Northern Forest Canoe Trail (NFCT) is an approximate 740-mile canoe route spanning portions of upstate New York, Vermont, New Hampshire and Maine

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STATEMENT OF F. BRUCE SLEEPER, PRESIDENT
TRAINRIDERS NORTHEAST

500 Forest Avenue

Portland, ME 04101

fbsleeper@trainridersne.org

REGARDING RAIL AND TRAIL USE OF THE FORMER ST. LAWRENCE AND
ATLANTIC RAILROAD LINE BETWEEN PORTLAND, MAINE AND AUBURN,
MAINE

BEFORE THE CITY OF PORTLAND SUSTAINABILITY & TRANSPORTATION
COMMITTEE

1/09/2023

TrainRiders Northeast is a tax exempt, grass roots, citizens' organization whose purpose is to educate public officials, as well as the public at large, as to the benefits of passenger rail travel in the Northeast. I was volunteer legal counsel to TrainRiders from 1989 until the end of last year, when I became its president. TrainRiders was the primary advocacy voice for the return of passenger rail to Maine, which, in 2001, resulted in the commencement of Amtrak's Downeaster service between Portland and Boston. In 1990, I wrote the original version of the "Passenger Rail Service Act", which required the Maine Department of Transportation ("MDOT") to spend at least \$40 million to return passenger rail service to Maine. A political action committee formed by TrainRiders then gathered the signatures of approximately 90,000 registered Maine voters petitioning the Maine Legislature to adopt that Act. In 1991, that is exactly what the Legislature did, with the Act becoming the first citizen initiated bill to ever be adopted by the Maine Legislature without the need for voter approval. In 1995, I helped write legislation that amended that Act to create the Northern New England Passenger Rail Authority ("NNEPRA"). Later in that same year, then-Governor King appointed me to NNEPRA's first board of directors, where I served until 2000.

TrainRiders was also instrumental in obtaining the 2012 expansion of the Downeaster service north from Portland to Freeport and Brunswick. Currently, it provides volunteer hosts at some of the Downeaster station stops, and now awaits the return of the on board Downeaster host service it provided from that service's inaugural run in 2001 through the onset of COVID in 2020. TrainRiders continues to work with various parties, both public and private, in supporting the Downeaster service, as well as in further developing passenger rail service in Maine and elsewhere in the Northeast.

The rail line between Portland and Auburn formerly owned by the St. Lawrence and Atlantic Railroad (the "SLR Line") and now by the State of Maine must be preserved in a manner that will realistically permit future rail use of that line when and if that otherwise is desirable. The removal of track and ballast from that line will not achieve that result

and, so, any such removal to permit trail use of the line should not occur. TrainRiders would support properly constructed and spaced rail with trail use of the line, as well as its preservation solely for rail use.

The reasons for this are many:

1. Whether the State funded its purchase of the SLR Line in whole or in part by the proceeds of bonds sales by the State or by using other funding sources is not clear to TrainRiders. Maine voters, however, would have had to approve any such bond, and it appears that in each instance where approval was obtained for bond funding of a State purchase of a rail line purchase the question presented to voters stated that the bond funds would be used to promote rail, and not trail, use of the line. Any General Fund money used to help purchase the SLR Line would have been a line item in a budget bill approved by the Maine Legislature, and this line item would have indicated that these funds were to be used for rail, and not trail purposes. Therefore, the effective ability of the SLR Line to continue to be used for rail purposes is a basic premise of that funding and that purchase, and any deviation from this would constitute a failure to keep faith to those voters or the Maine Legislature.

2. In 2021, the Maine Legislature adopted legislation permitting the Commissioner of the Maine Department of Transportation (“MDOT”) to create a rail use advisory council (a “RUAC”) to review non-rail use of a State owned rail line upon receipt of a petition for the same from one or more governmental agencies that represent communities along that line. Previously, the Legislature had determined that “a viable and efficient rail transportation system is necessary to the economic well-being of the State” and that “the State must take active steps to protect and promote rail transportation in order to further the general welfare”. 23 M.R.S. § 7102. Consistent with these findings, the legislation authorizing the creation of a RUAC explicitly states that any non-rail use of the line must be interim in nature and preserve the corridor for future rail use as provided for in 23 M.R.S. § 7107. See 23 M.R.S. § 75(1). At the very least, this puts a heavy burden on those who advocate for the removal of rail, ballast and other infrastructure from a State-owned rail corridor to unquestionably demonstrate that this removal will not interfere with future rail use of the line.

3. The Commissioner has formed a RUAC to review the use of the SLR Line. That RUAC has voted to issue a majority report recommending that the Line be converted to trail only use, which will require the removal of the track, ties, and ballast from the Line. Because the Line, however, will, at least theoretically, be preserved for later reconversion to rail use, this is known as the “trail until rail” alternative. That RUAC will also be issuing a minority report recommending that the Line be preserved for either for rail only use (the “rail use” alternative) or for a trail to be constructed alongside the rail in a way that will not interfere with rail use of the Line (the “rail with trail alternative”).

4 Proponents for removal of the rail, ballast, signals, and other infrastructure on the SLR Line to make way for its use as a trail now quickly agree that the trail can be removed and replaced by new rail, ballast, signals, and related items for future rail use of that Line. This, however, ignores reality. For many years, federal law has provided a mechanism for rail banking in which rail ballast and other infrastructure is removed from a rail line and replaced by a trail, with the same legal requirement that it be held in readiness for trail removal if that becomes necessary for future rail use. Although thousands of miles of rail line have been banked under this program, probably less than 100 miles has ever again been reconverted to rail use. Instead, such reversion simply becomes too expensive after the removal of rail, ballast, and other infrastructure, and this has sometimes made renewed rail use too costly to pursue even though it would otherwise have been economically or socially justified. Additionally, despite the legal right for renewal of rail activities on a rail banked lien, in some instances the outcry from trail users, NIMBY's, and others has made reversion politically impossible even where economics and social need might otherwise favor it. **This Committee should be clear on this point: removal of rail infrastructure from the SLR Line will, as a practical matter, mean that it will never again be used as a rail line.** Therefore, this Committee should not support the misnamed “rail until trail” alternative unless and until trail only proponents can clearly and unequivocally demonstrate that rail use of the SLR Line will never again be needed.

5. Some trail only proponents have argued that the existence of a parallel rail line (the “CSX Line”), now owned by CSX, between Portland and Auburn means that the SLR Line will no longer be necessary to provide rail service between those cities. CSX is one of the largest rail companies in the United States, and the CSX Line is part of CSX's main line into, through, and out of Maine. Almost all of CSX's rail traffic north of Portland runs on this Line. It is possible that increased traffic on the CSX Line will cause that Line to reach capacity at some point in the future. Moreover, CSX has no obligation to permit any passenger service on this Line by any entity other than Amtrak. In contrast, the State can permit any otherwise qualified operator to run passenger service over the SLR Line. Thus, converting the SLR Line to trail only use will limit the opportunity for future passenger and, possibly, freight service between Portland and Lewiston-Auburn, to the detriment(whether economic or otherwise) of the City of Portland.

6. This is also not the time to consider ripping up the rails along the SLR Line or even rails with trails on that corridor. First, the Legislature has directed MDOT to prepare a separate study of the potential for passenger rail use along this same Line. That study will not be completed until sometime next year at the earliest and its findings will have a substantial impact upon what should happen on the SLR Line. Second, COVID has changed transportation needs and desires. The RUAC for the SLR Line based its decisions in large part upon the December 2022 final draft of the Berlin Subdivision Rail Corridor Study (the “Draft Study”) prepared for that RUAC. Parts of the information and projections upon which the Draft Study is based depend upon Downeaster ridership figures from September 2021 through August 2022. While the Downeaster is currently at about

the same ridership level as it had in 2019, because of COVID, such was not the case during a large part of the period from which these figures were taken. Moreover, experience is showing that the demographics of post-COVID rail passengers differ from pre-COVID ridership, with riders now being younger and including somewhat fewer commuters than prior to the pandemic. How this will impact future ridership trends is now unknown, so giving any decision about the SLR Line the gift of time would enable all interested parties to make far a better decision than is now possible.

7. The Draft Study also includes several other deficiencies that make it an unreliable guide to any decision that this Committee might make here, including the following:

- a. Appendix B to the Draft Study includes an analysis of the economic impact of trail users on the SLR Line by assuming that about 23% of those users would be non-local and that these non-local users would spend an average of \$118 for food, lodging, and equipment each day that they use the trail, resulting in spending of \$3.5-\$5.3 million annually by those users for trail related activities. See App. B at 6. That same study, however, includes only what rail passengers might spend on the train itself, resulting in spending of \$114,000 to \$130,000 annually. See App. B at 17-18, 38-39. Apparently, trail users get to eat, sleep, and buy things whether or not they are on a trail, while rail passengers only do those things when on board their trains. Even if those passengers may primarily be commuters who would travel to the same destination by other means if passenger rail service were not available, still, it would only take 10 non-commuter passengers a day who spend \$100 for one day at their destination to add \$365,000 in localized spending annually to the figures used in the Draft Study. Rail passengers may also be more likely than trail users to spend multiple days at their destinations increasing the rail passenger spending benefit even more as compared to trail use.
- b. The same discrepancy between spending by trailer users and rail passengers also results in an understatement of other direct, indirect, and induced economic impacts of passenger rail use, since those impacts are estimated based upon the spending by rail passengers solely while they are on the train, while those of trail users is calculated using estimated spending occurring while they are at or anywhere near the trail. See App. B at 17-18, 39-40.
- c. The analysis also projects that, as a result of passenger rail service, only 37-58 new housing units would be developed around the proposed station site in Auburn, 17-26 units at Pineland, and 85-172

units at Yarmouth. This compares to over 400 units developed close to the Brunswick station, several hundred in Saco, 250 in Dover, New Hampshire, 100 in Durham, and 100 in Exeter after the initiation of the Downeaster service. Those numbers do not include a 60 unit residential apartment building that has been approved, or an additional 40-50 units for which a proposal is now being planned, both of which will involve construction within a few hundred feet of the Freeport station. Furthermore, the 2018 Lewiston-Auburn Passenger Rail Service Plan Transit Propensity Report (the “Propensity Report”) prepared for NNEPRA and the Maine Department of Transportation (“MDOT”) surveyed other studies, at least one of which concluded that by 2030 the extension of the Downeaster service north from Portland, through Freeport to Brunswick, with seasonal service to Rockland, would result in the construction or rehabilitation of over 42,000 housing units. See Propensity Study at 83-84. Although many of the Downeaster stations support local populations that substantially exceed those at some of the historic station stops along the SLR Line, these numbers still give a strong indication that the Draft Report has undercounted the number of new housing units that should be anticipated as a result of passenger rail service on the SLR Line.

- d. The Draft Study indicates that it will cost \$274 million to upgrade the tracks between Portland and Auburn for passenger rail service. See Draft Report at 22, App. A. A substantial portion of that (perhaps as much as \$60 million), however, would be for the cost of positive train control along the SLR Line, something that is only required if and when there are more than 6 passenger rail round trips per day utilizing that corridor. See Draft Report at 21. See also App. A at 3, 4, item 8 (Communications & Signal System Improvements).

6. Finally, as noted above, TrainRiders can support rail with trail usage of the SLR Line, but only if the trail is properly constructed and properly separated from the rail line. This separation must include fencing between the rail and the trail, as well as elimination of trail crossings over the rail line except at fully signalized, protected, and, preferably, already existing, public rail crossings. The Draft Study assumes a minimum 15-foot offset from the edge of the trail to the centerline of the tracks. See Draft Study at 26. Since a standard gauge rail line has a distance of 28.25 inches from its centerline to the inside edge of each rail, this would result in a distance of about 12 feet 7.75 inches between the inside edge of the rail nearest to the train and the edge of the trail itself. Rail cars and locomotives hang over the edge of each rail, with that overhang potentially increasing with any lateral movement of that equipment when traveling along the Line. This might decrease the offset of the trail from the side of a passing rail car or locomotive to 11.5 feet or so.

The primary concern with any such separation is the safety of trail users who would be walking along an active rail line. A second concern is to ensure that construction, maintenance and use of the trail does not undercut support for rails, ties and ballast. Finally, the trail must be far enough away from the rail to permit the use, construction, and maintenance of that line. Rail with trail separation requirements vary widely. Several private railroads have their own guidelines for the separation required between a trail and their rail lines. CSX, for example, requires a 50-foot separation, which is not uncommon for private railroads. See Public Project Information: For Construction and Improvement Projects that May Involve the Railroad at 38 (CSX Transportation, Rev. April 2022), available at <https://www.csx.com/index.cfm/library/files/about-us/property/public-project-manual/>. Several Class I railroads, such as CSX, Norfolk Southern, the BNSF Railway, and the Union Pacific Railroad, do not permit any trails to run parallel to their rail lines within the railroad right of way. See Rails With Trails, Best Practices and Lessons Learned at 16 (Federal Railroad Administration, Federal Highway Administration, March 2020) (“Best Practices”), available at https://railroads.dot.gov/sites/fra.dot.gov/files/2020-04/RWT_Report_Final_031620_0.pdf. Some smaller railroads require a separation of 20-50 feet between a trail and an active rail line. Id. at 17. The State of Vermont requires a separation of 11 feet between the outside rail and the edge of a trail for low density/low speed branch lines, increasing to 25 feet or more for high density/high speed lines. See Vermont Pedestrian and Bicycle Facility Planning and Design Manual (Vermont Agency of Transportation, December 2002) at 6-12, 6-13, available at <https://vtrans.vermont.gov/sites/aot/files/highway/documents/publications/PedestrianandBicycleFacilityDesignManual.pdf>. New Hampshire requires a 20-foot separation distance. See Trail with Rail Design Standards (New Hampshire Department of Transportation Bureau of Rail & Transit. January 2013), available at <https://www.nh.gov/dot/programs/bikeped/documents/NHDOTTrailwithRailStandards.pdf>.

Although the desired separation distance between an active rail line and a trail varies depending upon many factors, one thing is certain: almost all rails with trails (87% nationally, and 96% of those that have opened since 2000) have some sort of barrier between the rail and the trail. See Best Practices at 51. Although some barriers consist of vegetation, berms, or ditches, only a fence between the rail and the trail would provide the type of minimally acceptable protection that can prevent trail users from become witting or unwitting trespassers on an active rail line with all of the dangers that this presents.

Other design constraints are also required for the safety of trail users. This might include, for example, proper lighting, signage, and additional physical protections for those users. What might be required for a particular line must be developed as the trail is surveyed and designed. Therefore, caution must be used in supporting any rail with trail use of the SLR Line.

TrainRiders appreciates this opportunity to comment on the future of the SLR Line and would be more than happy to do whatever this Committee might wish in order to help this process proceed in a knowledgeable and informed manner.



Troy Moon <thm@portlandmaine.gov>

Priorities for 2023

Winston Lumpkins <winston.lumpkins@gmail.com>

Sun, Jan 1, 2023 at 9:46 PM

To: Victoria Pelletier <vpelletier@portlandmaine.gov>, Andrew Zarro <azarro@portlandmaine.gov>, Roberto Rodríguez <rrodriguez@portlandmaine.gov>, Troy Moon <thm@portlandmaine.gov>, Emma Scudder <scudder.emma@gmail.com>

Dear members of the Sustainability & Transportation Committee,

As you consider your own goals for 2023, I wanted to make sure that you've all had a chance to see the Portland Bicycle & Pedestrian Advisory Committee's Priorities for 2023.

<https://www.portlandbikeped.org/priorities-for-2023>

These represent both what we hope the Council & City Staff can accomplish and what we're most excited to push for.

It was a multi month process putting them together, I'm proud of everything we did to get here. I hope they can support the work you're doing.

I look forward to working with all 3 of you (and Troy Moon) in the coming year,

Happy New Year, and good wishes for the final day of kwanzaa.

Sincerely,

~Winston

Winston Lumpkins IV (he/him/his)

Chair, Portland Bicycle & Pedestrian Advisory Committee

<https://www.portlandbikeped.org/>

winston.lumpkins@gmail.com

207-408-1508



PBPAC Full Priorities for 2023.pdf

100K

The Portland Bicycle & Pedestrian Advisory Committee's Priorities for 2023



On our December 12, 2022 meeting the Portland Bicycle & Pedestrian Advisory Committee voted to adopt these Priorities for 2023.

We identified two Major priorities & a small host of supporting initiatives & policies.

Firstly, We believe above all, it is necessary to reinstate the position of Bicycle & Pedestrian Coordinator. This position would oversee and coordinate the effort to make Portland's transportation infrastructure equitable and consistent for all; historically this has been a revenue positive position based on the salary structure and amount of grant monies obtained. Our proposal for this position can be found [here](#). While existing city staff should be commended on their hard work in this area, we need to dedicate more resources to get results. Delays & continued dangerous traffic patterns cost lives, and delay transitioning to a more sustainable and equitable city.

Secondly, the City Council should advance the following policies that support safety for vulnerable road users:

- **Adopt the Vision Zero plan**

Greater Portland Council of Governments (GPCOG) is currently undertaking a [regional initiative](#) to eliminate all road fatalities and will begin providing support for municipalities to adopt their own plan. A Vision Zero plan is a commitment by Portland to redesign our transportation network to eliminate fatalities and in doing so, opens up numerous opportunities for federal funding to accomplish these goals.

- **20 is Plenty Initiative**

Portland should join the [worldwide movement](#) to reduce the speed limit to 20 MPH on all city-controlled streets & work with MaineDOT to reduce speeds on state-controlled roads to create a safer experience for all.

- **Safe Routes to School**

Safe Routes to School (SRTS) is an approach that promotes walking and bicycling to school through infrastructure improvements, enforcement, tools, safety education and incentives to encourage walking and bicycling to school. Children who walk or bike to school are healthier, focus better during the school day, and have a better sense of their local geography and community, all while reducing carbon emissions and. Nationally, 10%–14% of car trips during morning rush hour are for school travel. Sidewalks and streets that make up walking and cycling routes to schools should be prioritized for safety upgrades and traffic enforcement.

Other initiatives. Many of these initiatives could be said to be the job description for a Bicycle & Pedestrian Coordinator and are of very high priority on our list of things to advocate for. Others should be taken up by the Portland City Council.

Major Projects:

Begin redesigning all Portland's Arterial roads so that they can serve the needs of all users & not just those in cars and especially so that they don't prevent anyone from using active modes of transportation.

- **Complete the redesign of Brighton Avenue Arterial Road**, incorporating grade separated bike lanes & traffic calming throughout. A project which began in 2020, the redesign of the entirety of Brighton Ave has seemed to fall by the wayside. We request this project be resurrected as Brighton is a vital corridor in and out of Portland.
- **Implement the Franklin Street Plan**, bringing the design up to current best practices regarding bicycle facilities. In 2015, a [feasibility study](#) was completed recommending Franklin Street return to a more traditional urban street. Unfortunately, this plan has been placed on the shelves and is due to be revisited to better connect the peninsula.
- **Restore Streets to two way travel**, such as Park Avenue/Congress Street and High Street/State Street.
- **Begin planning for a multi modal corridor along outer Congress Street**, from 295 to Westbrook and South Portland. This corridor is essential to travel in and out of the city and has significant segments with zero accommodations for bicyclists or pedestrians.

Implement the Better Bikeway Initiatives Pilot Project. In early 2022, the City performed extensive outreach to Portland bicyclists on locations they would like high-quality bicycling infrastructure implemented through the [Better Bikeways Initiative project](#). Through these results, the city developed pilot projects to be implemented in Summer 2022, however, due to staffing & material constraints, these were not implemented. We urge Portland to prioritize implementing this pilot project in Summer 2023 so data and feedback can begin to be collected.

Sidewalk Snow Removal: Increase the capacity of the Parks, Recreation & Facilities Department so they can consistently clear the sidewalks and multi-use trails they are responsible for within 18 hours of snowfall. This is the same standard the city requires of residential abutters. Parks staff have shown a commitment to clearing Portland's sidewalks as effectively as they can, however, equipment and staffing shortages cause the department to fall short of the time frame required of residential abutters. More information regarding our proposal can be found [in this letter](#).

Close the gaps in the city's sidewalk, multi use path and bike lane network. This could be a project led by a new Bicycle & Pedestrian coordinator. Some examples include:

- The need for a continuous bike lane along York Street from downtown to the Casco Bay Bridge, eliminating sudden & dangerous uphill pinch points.
- Connect the West Commercial Street path to downtown, or at least sign the beginning/end so it's clear that it's a multi-use path open to cyclists & what you should do while approaching downtown.

- Address "*sudden bicycle lane disappearance*" in intersections.

Policies:

Permanently close sections of streets to private automobiles, such as Baxter Boulevard from Vannah Avenue to Payson Park.

Support removing redundant I-295 exit ramps, such as those at Exit 5. These redundant ramps not only create high speed conflict areas between drivers and vulnerable road users, but also take up valuable land that could be utilized for other purposes.

Develop a plan to increase revenue from public parking & private parking lots, such as [the plan we presented along with Livable Portland in April of 2022](#)

Provide Bicycle & Pedestrian safety education in Portland Public Schools.

Implement short term experimental traffic calming measures. The committee is in support of temporary demonstrations, such as the Bicycle Coalition of Maine's "[Imagine People Here](#)" campaign, to test traffic calming mechanisms and improve safety and access for pedestrians and bicyclists.

Create a Technical Manual Standard for widening sidewalks and narrowing streets. Some streets appear to be excessively wide with very little of the available on-street parking being utilized, but too often the reason behind these streets not being narrowed is due to storm drainage. We request the city research and develop a standard for accommodating these storm drains, such as "reverse bump-outs" used in other cities.

Transit priorities:

Expand transit frequency & time of service. Infrequent service is one of the largest obstacles to participation in public transit for most people. Missing the bus can cause a person to lose their job with infrequent service, and takes an enormous amount of precise planning to use properly. With frequent enough service, a rider can just go to a bus stop & wait 5-10 minutes, without having to memorize an erratic schedule. Using public transit should be more reliable & less stressful than driving.

Consolidate regional transportation agencies. They don't seem to be able to make changes or compromises efficiently in their current forms.

Reduce or eliminate fares for public transit, either system wide or on specific routes.

Expand the sidewalk network so it serves all METRO routes. Some bus routes, such as the 5 and 9A/9B, have segments of the route on the outskirts of the city that are lacking in pedestrian infrastructure and host bus stops that are no more than a private driveway or front yard. All transit users are pedestrians or bicyclists at some point in their trip, so we believe a sidewalk network along all METRO routes provides a safe and dignified public transit experience for all users.

Formalize & fund snow clearing at METRO Stops. Currently, METRO stops are shoveled by neighborhood volunteers through the Adopt-A-Stop program. Including METRO stops in the city's sidewalk snow clearing plan ensures this important task gets done, and re-affirms the city's commitment to an equitable transportation network.



Troy Moon <thm@portlandmaine.gov>

The battle for RECs

1 message

Bill Weber <wjweber77@gmail.com>

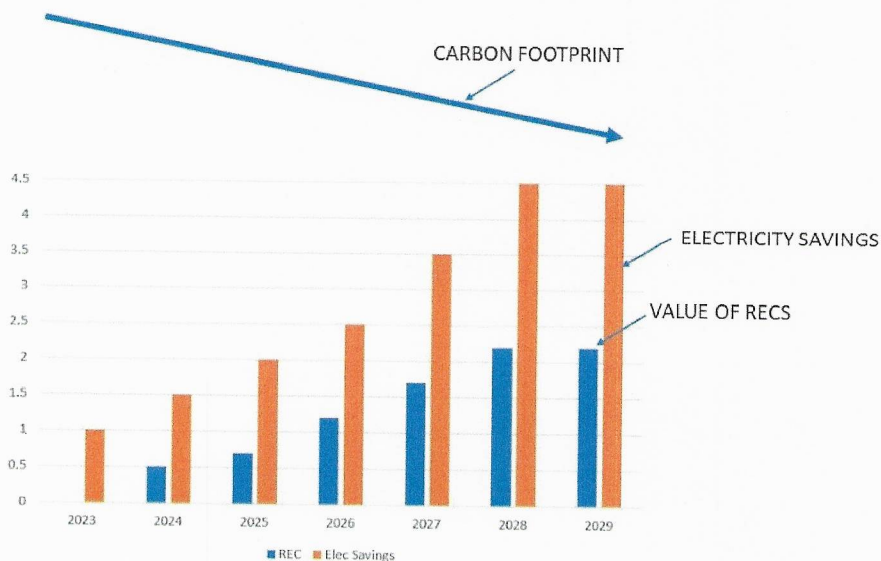
Tue, Jan 10, 2023 at 4:04 PM

To: Andrew Zarro <azarro@portlandmaine.gov>, Troy Moon <thm@portlandmaine.gov>, Victoria Pelletier <vpelletier@portlandmaine.gov>, Roberto Rodriguez <rrodriguez@portlandmaine.gov>

I think a strong financial argument could be made that the Solar RECs should be used to fund additional investments in reducing the City's carbon footprint and just as importantly further reduce operating costs for city owned properties. Per the OCF Dashboard, nearly three-quarters of the City's electric demand for municipal buildings will be met in the future by previously contracted solar projects. I believe the savings resulting from the lower unit cost of electricity will be significant.

A compelling means to present this data is in a graphical format. Below is a conceptual graph of what the savings might look like over the next few years. The size of the bars is dependent on the agreements with the solar developers.

Re-investing the RECs into continued efforts to decrease the City's carbon footprint is the only moral choice. Selling them on the market and then using the money generated for general purposes is not meeting the commitment to One Climate Future and is not consistent with the priorities set by the City Council in the 2023 Goal Setting meeting.



--
 Bill Weber
 66 Roaring Brook Road
 Portland, ME 04103
 (207) 232-9802



Troy Moon <thm@portlandmaine.gov>

S & T Committee Priorities and Work Plan

1 message

Wendy Cherubini <wcherubini@gmail.com>

Tue, Jan 10, 2023 at 7:08 AM

To: Azarro@portlandmaine.gov, vpelletier@portlandmaine.gov, roberto Rodríguez <rrodriguez@portlandmaine.gov>

Cc: thm@portlandmaine.gov

Dear Members of the City Council Sustainability & Transportation Committee,

It is my understanding that you will be setting priorities for the S&T Committee and developing a 2023 committee work plan this week.

I urge you to prioritize the reconstruction of the Franklin Street Corridor and include in your work plan a City application for federal 2023 Reconnecting Communities funds.

The Reconnecting Communities grant program is an exciting opportunity for Portland <https://www.transportation.gov/grants/reconnecting-communities>, but we are already in the 2nd of 5 years of fund availability. Portland could apply for Planning funds in 2023 and seek Construction funding for the following rounds. Last year applications were due in October, so now is the time to begin work within the City and with our partners such as MDOT and GPCOG on an application.

I expect there will be a suggestion to wait until the City Manager search is completed, but we could miss out on the next round if we wait. Reconstructing Franklin is established City policy and we need your leadership to get this project to the next phase.

Thank you for your consideration and your service.

Sincerely,

Wendy Cherubini
99 Federal Street Unit 302
Portland, ME 04101

207-450-2962



Troy Moon <thm@portlandmaine.gov>

S&T committee priorities

1 message

Markos Miller <markossmiller@hotmail.com>

Mon, Jan 9, 2023 at 5:03 PM

To: "Andrew J. Zarro" <azarro@portlandmaine.gov>, Roberto Rodríguez <rrodriguez@portlandmaine.gov>, Victoria Pelletier <vpelletier@portlandmaine.gov>

Cc: Troy Moon <thm@portlandmaine.gov>

Happy New Year Councilors,

I hope you all are well. I understand that at on Jan. 11th your committee will be setting priorities for the coming year.

I'm writing this short note to encourage you to prioritize the reconstruction of Franklin Street for 2023. This is the 2nd of 5 years in which the federal Reconnecting Communities grant funding will be available.

With the Council's support, Portland could be positioned to apply (October deadline) and receive funding to complete design work this year and reconstruction funding in one of the remaining 3 years. This is a great opportunity to transform how we move people into our city and create housing for all people.

Thank you for your service,
Markos

Markos Miller
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