

GREATER PORTLAND ACTIVE TRANSPORTATION ARTERIALS

Part of a statewide plan to connect all of Maine's 25 largest municipalities and over two-thirds of Maine's population



A Joint Vision of



**BICYCLE
COALITION
OF MAINE**



East Coast



Greenway



**Preliminary Release for Public Comment
June 2022**

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Executive Summary

In May 2022, a group of eight trail organizations together released [Maine Active Transportation Arterials](#), a plan to connect all 25 of Maine's largest municipalities and over two-thirds of Maine's population. In this companion to the Maine Active Transportation Arterials report, we focus on the key arterials through the Greater Portland region.

Greater Portland's active transportation system should be anchored by regionally connected bikeway arterials from a centralized hub in downtown Portland and extending to the region's other population centers to the south, west, and north. A modernized complete streets infrastructure within local communities can then feed into these regional arteries to convey wider access.

This Greater Portland regional vision connects Portland with active transportation corridors to all of Maine's 25 largest municipalities, and many others, and with the [East Coast Greenway](#), an envisioned 3,000-mile multiuse trail from Calais, Maine to Key West, Florida.

The vision also dovetails perfectly with another active transportation plan, [Getting There From Here](#), which was released by the Greater Portland Council of Governments (GPCOG) and Portland Area Comprehensive Transportation System (PACTS) in 2018. The current report simply identifies and prioritizes the arterial components of the GPCOG-PACTS vision that are key to providing regional connectivity.

Off-road or traffic-separated bikeways transform the communities they pass through by providing a valuable resource for recreation, safe and emission-free transportation, commuting, exercise, tourism, environmental stewardship, and connection to the outdoors. A substantial economic impact is envisioned by leveraging Maine's globally recognized outdoor reputation and brand.

Several of the bikeway arterials described in this report take advantage of state-owned rail corridors that are no longer used by trains. Notably, Maine has two distinct rail corridors between Portland and Lewiston-Auburn. Based on their locations, current use, and condition, one of the corridors makes more sense for trains, and the other as a rail trail; thereby enabling both public purposes to be achieved.

The Greater Portland regional vision consists of 25 project segments of which 8 are completed or in process and 14 are prioritized for completion over the next several years. An additional 42 projects are part of the Maine Active Transportation Arterials plan.

The estimated cost of the 14 priority projects identified in this report, which would complete most of this arterial anchor for emission-free transportation in Greater Portland, is about \$60 million. *This should be a centerpiece of GPCOG's Connect 2045 plan.*

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Preliminary Release for Public Comment

We welcome your comments and suggestions. A revised version of this report will be released later this year. You may [submit comments here](#).

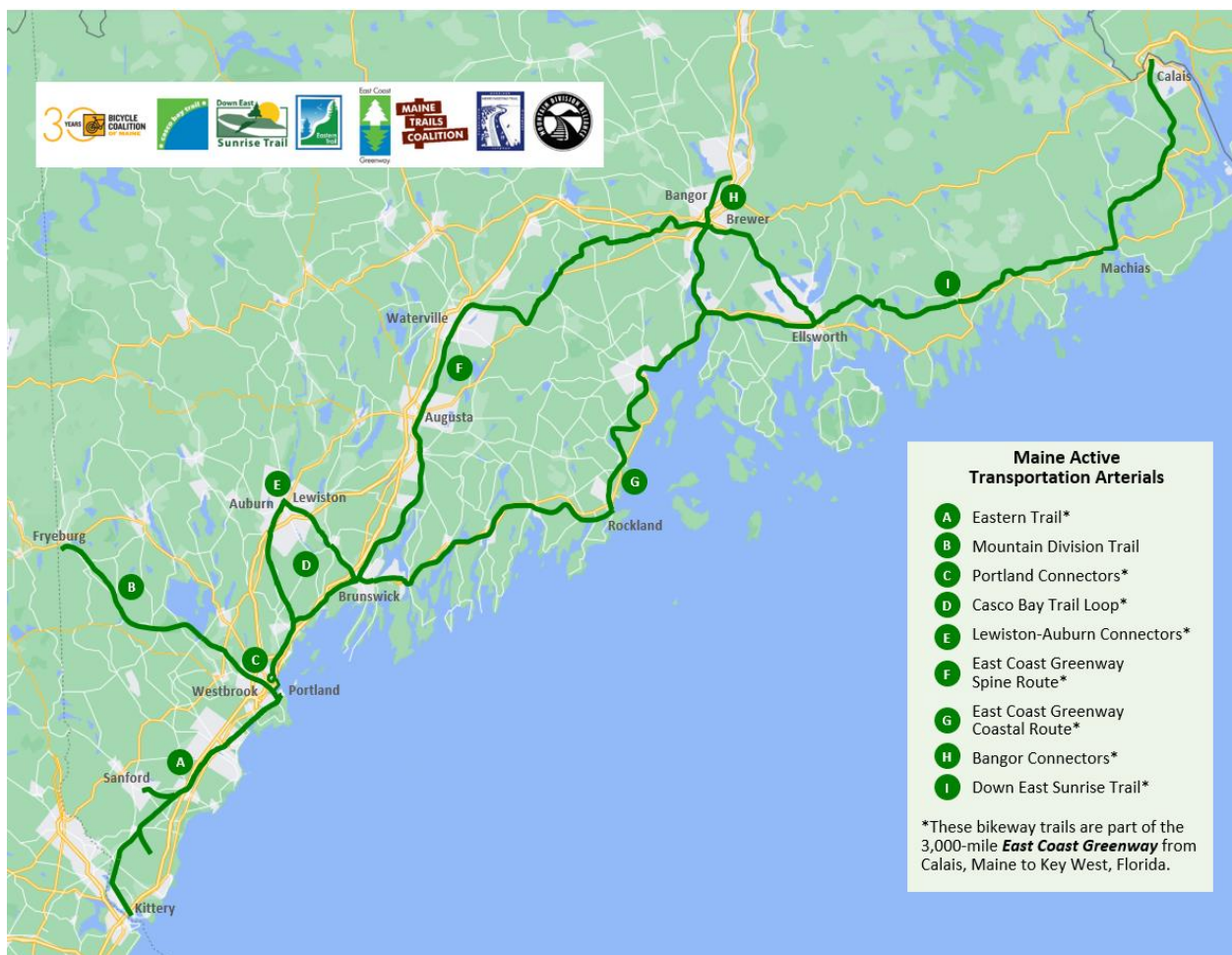
We hope that significant aspects of this report will be incorporated in GPCOG’s Connect 2045 long-range plan. You may [submit recommendations to GPCOG about their Connect 2045 plan here](#).

I. INTRODUCTION TO THE ARTERIALS VISION

The arrival and acceleration of 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. The popularity and societal value of active transportation infrastructure is reflected in the multi-fold increase in documented trail use in 2020 and 2021, since the emergence of the coronavirus pandemic. Multi-use trails satisfy a basic human need for physical and mental health and connection to the outdoors and key destinations like workplaces and basic services.

The Maine Arterials Vision

Active transportation systems should be anchored by regionally connected bikeway arterials between population centers, much like the National Highway System provides for motorized use. A modernized complete streets infrastructure within local communities can then feed into the regional arteries to convey wider access and connectivity. In May 2022, a group of eight trail organizations together released [Maine Active Transportation Arterials](#), a plan to connect all 25 of Maine’s largest municipalities with just such an arterial system.



The **Eastern Trail** (active transportation corridor A on the map) runs between the New Hampshire border in Kittery and Portland. The **Mountain Division Trail** (corridor B) runs between the New Hampshire border in Fryeburg and Portland. The **Casco Bay Trail Loop** (corridor D) runs between Portland, Lewiston-Auburn, and Brunswick. Arterial connectors through **Portland** (C) link downtown Portland to the Eastern Trail to the south, the Mountain Division Trail to the west, and the Casco Bay Trail Loop to the north. Arterial connectors through **Lewiston-Auburn** (E) assure that the network's connectivity runs seamlessly through downtown Lewiston and downtown Auburn. The **East Coast Greenway Spine Route** (corridor F) runs between Brunswick, Augusta, Waterville, and Bangor following an inland route. The **East Coast Greenway Coastal Route** (corridor G) runs between Brunswick, Rockland, Belfast, Bucksport, and Bangor following a coastal route. The **Down East Sunrise Trail** (corridor I) runs between Bangor, Ellsworth, Machias, and the Canadian border in Calais. Arterial connectors through **Bangor** (H) link downtown Bangor and Brewer to the East Coast Greenway's spine and coastal routes and the Down East Sunrise Trail. The plan also includes arterial spurs to Orono, Sanford, and York.

These arterials are fully integrated and connected with each other. When completed, one could travel by bike or foot, off-road (or on traffic-separated paths) and completely safe-from-traffic, between any of Maine's 25 largest municipalities and the many smaller communities in-between these population centers.

This arterial network passes directly through Portland (population 68,408), Lewiston (37,121), Bangor (31,753), South Portland (26,498), Auburn (24,061), Biddeford (22,552), Scarborough (22,135), Sanford (21,982), Brunswick (21,756), Westbrook (20,400), Saco (20,381), Augusta (18,899), Windham (18,434), Gorham (18,336), Waterville (15,828), York (13,723), Falmouth (12,444), Kennebunk (11,536), Wells (11,314), Orono (11,183), Standish (10,244), Kittery (10,070), Lisbon (9,711), Brewer (9,672), Topsham (9,560), Yarmouth (8,990), Old Orchard Beach (8,960), Bath (8,766), Freeport (8,737), Cumberland (8,473), Ellsworth (8,399), Winslow (7,948), Hampden (7,709), South Berwick (7,467), Belfast (6,938), Rockland (6,936), Eliot (6,717), Hermon (6,461), Gardiner (5,961), New Gloucester (5,676) and 58 other Maine municipalities, for a total of 743,000 residents. An additional 175,000 residents live in communities within 5 miles of the proposed network, making the envisioned bikeway arterial system locally accessible to more than two-thirds of all Mainers.

In addition to connecting all of Maine's largest population centers, this vision would complete the Maine corridor of the [East Coast Greenway](#), an envisioned 3,000-mile multiuse trail from Calais, Maine to Key West, Florida. That means that every one of these Maine communities would eventually be accessible by bike or foot, off-road (or on traffic-separated paths), completely safe-from-traffic, to or from, Portsmouth NH, Boston MA, Providence RI, New York NY, Philadelphia PA, Baltimore MD, Washington DC, Richmond VA, Raleigh-Durham NC, Wilmington DE, Charleston SC, Savannah GA, Jacksonville FL, Miami FL, and hundreds of other cities and towns.

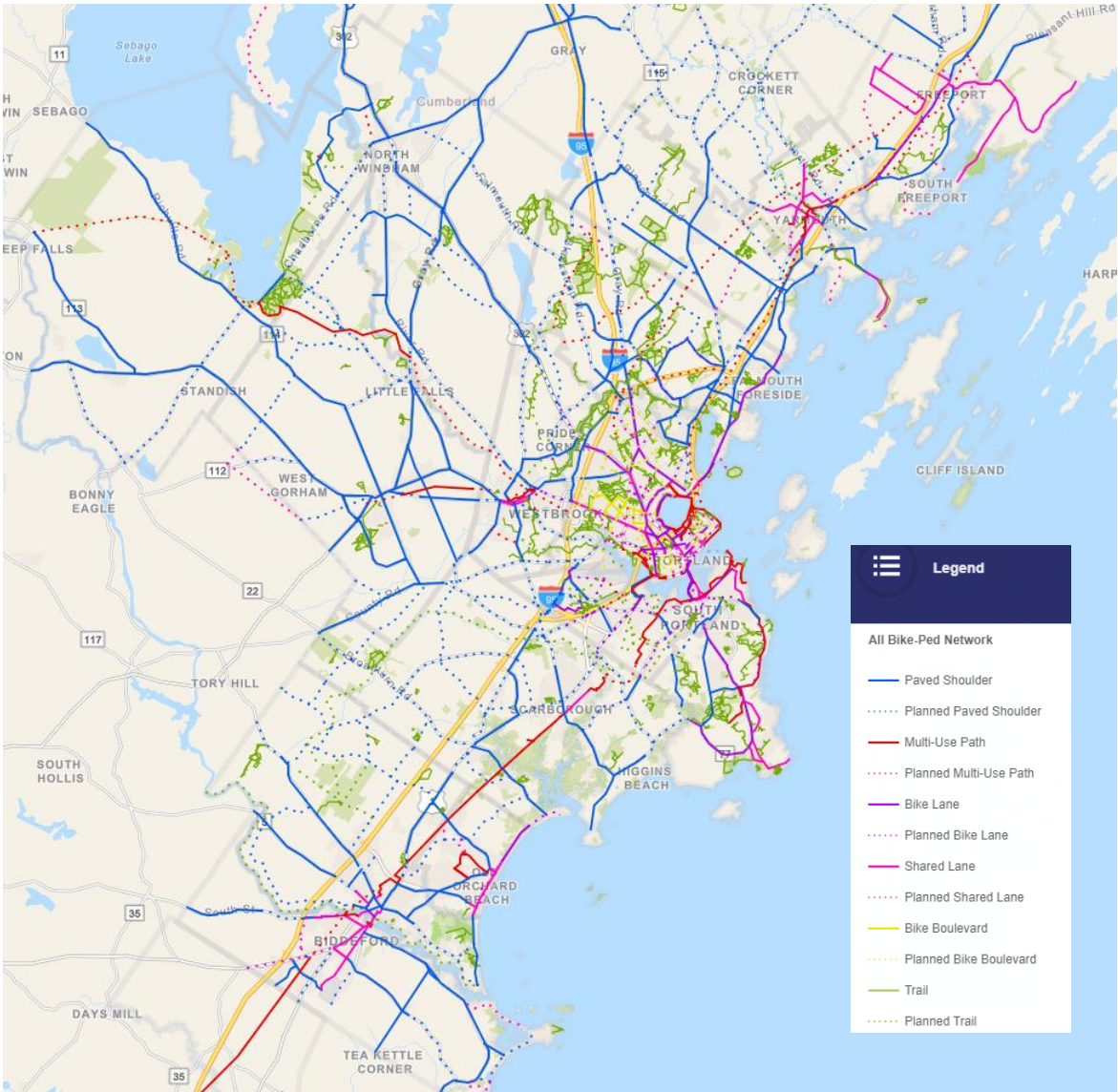
The GPCOG-PACTS Active Transportation Plan

In October 2018, the Greater Portland Council of Governments (GPCOG) and Portland Area Comprehensive Transportation System (PACTS) released their [vision for active transportation](#) in the region. It dovetails perfectly with the larger Maine vision for active transportation arterials.



COMPLETING THE NETWORK

A strong regional active transportation network is one that prioritizes mobility within centers and regional links between communities and key destinations. Priority centers - as identified in Destination 2040 - include urban centers, suburban districts, and town and village centers where growth is happening and expected to continue. These centers are the glue supporting the regional network. Getting There From Here adds a set of priority active transportation links.



The Greater Portland Council of Governments (GPCOG) is currently engaged in a comprehensive transportation planning effort called *Connect 2045*. To date, this effort has identified six high-level goals: provide equitable access, support great places, improve safety, expand choices, protect the environment, and optimize infrastructure. The plan “focuses on all modes of travel (including transit, freight, bicycles, and pedestrians) and considers major issues that need to be addressed in the long-term.” *The active transportation arterials vision described in this report should be a centerpiece of GPCOG’s Connect 2045 plan.*

The Greater Portland Arterials Vision

The following map extracts from the [Maine Active Transportation Arterials](#) vision those corridors that are within the GPCOG region or its companion Portland Area Comprehensive Transportation Planning (PACTS) region. In section II of this report, we describe the arterial project segments that would need to be completed to implement this vision.



The Community Benefits of Bikeways

Off-road or traffic-separated bikeways transform the communities they pass through by providing a valuable resource for recreation, safe and emission-free transportation, commuting, exercise, tourism, environmental stewardship, and connection to the outdoors. They provide universal access for Maine's youngest in strollers, oldest in wheelchair, and everyone in between.

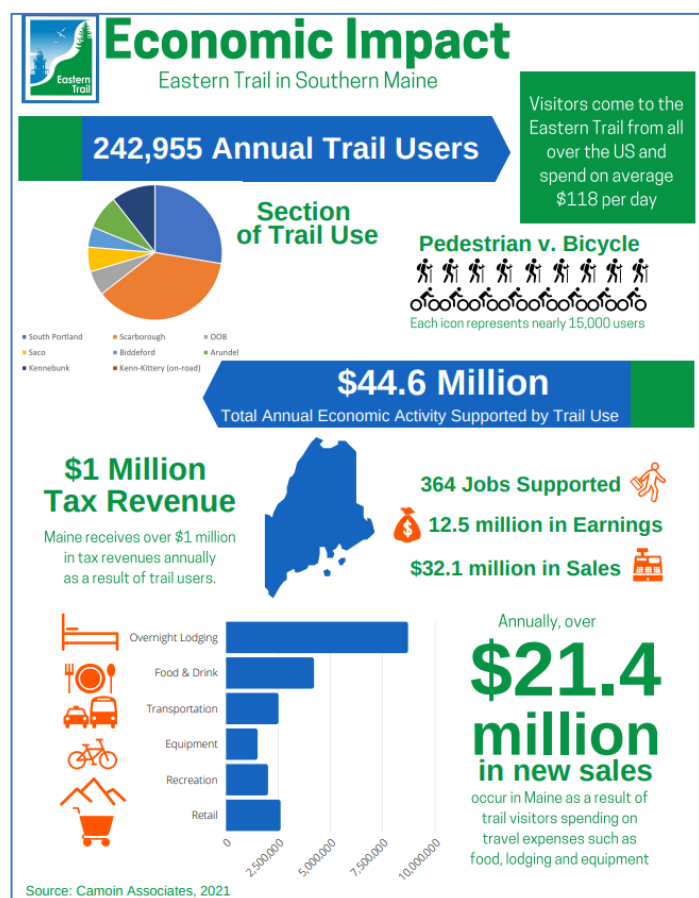
They improve public health and reduce health care costs, lowering the odds of diabetes, heart disease, and other chronic conditions. Non-motorized transportation is also zero-emission transportation, decreasing reliance on fossil fuels, and reducing carbon emissions.

The Economic Benefits of Bikeways

The prospective economic impact of bikeway infrastructure in Maine is profound and leveraged by Maine’s well-established global reputation for outdoor recreation. Bikeways boost the economy by attracting new retailers and service providers, drawing more people to existing businesses, and attracting bicycle tourism. The creation and marketing of a world-class bikeway network, seamlessly connecting Maine’s most populous cities, towns, and communities, would be game-changing for Maine’s economic future.

The economic impact of bikeways is well documented in analyses of existing bikeways. A November 2021 study by the Southern Maine Planning and Development Commission (SMPDC) analyzes the [Economic Impact of the Eastern Trail](#). It estimates that the trail had 243,000 user days in 2021, and an annual economic impact of \$44.6 million, including \$32.1 million in new sales, \$12.5 million in earnings, and over \$1 million in incremental tax revenue. This was the estimated impact of a trail that currently runs just 22 miles off-road; and thus represents a small fraction of the global draw of a completely integrated bikeway arterial network through the state.

There are many examples of economic impacts in other states too. A 2021 study of the [Great Allegheny Passage: Economic Impact Report](#), estimates a total economic impact in 2019 of \$121 million from that 150-mile trail between Pittsburgh, PA and Cumberland, MD, or about \$800,000 per mile. This includes \$74.7 million in direct spending by tourists at businesses in the Trail Impact Zone. The GAP trail had an estimated 1.5 million visitors in 2020. An older 2014 study of [The Economic Impact of the Erie Canalway Trail](#) estimates 1.6 million visitors to that trail annually, and an overall impact of \$253 million in sales and \$28.5 million in taxes. A 2019 study by the Rails-to-Trails Conservancy, [Active Transportation Transforms America](#) estimates the national spending impact of rail-trails at \$10.6 billion annually. It further estimates the health cost savings from increased physical activity due to active transportation at \$20 billion annually. Maine is ideally positioned to create a similarly impactful bikeway destination.



II. GREATER PORTLAND ACTIVE TRANSPORTATION ARTERIALS

The Greater Portland regional vision consists of 25 project/planning segments of which 8 are completed or in process (green in the following table), 14 are prioritized for completion over the next several years (orange), and 3 are exploratory or require a new traffic-separated or off-road route to be identified (blue). An additional 42 project/planning segments are part of the larger Maine Active Transportation Arterials plan. The reference numbers (A6, A7, A8, etc.) match the segment numbers used in the previously released [Maine Active Transportation Arterials](#) report.

GREATER PORTLAND BIKEWAY ARTERIAL SEGMENTS

Completed or In Process		Priority Projects	Early Planning
Eastern Trail		Miles	Casco Bay Trail Loop
A6	Kennebunk to Biddeford*	4.8	D1 Roux Institute to Presumpscot St
A7	Biddeford-Saco "Over the River"	3.1	D2 Presumpscot St - Yarmouth
A8	Saco to Scarborough	7.8	D3 Yarmouth: Crosstown Pathway
A9	Scarborough to South Portland Gap	3.7	D4 Yarmouth: Main St to Yarmouth Crossing
A10	South Portland Greenbelt	5.4	D5 Yarmouth Crossing to Pineland Farm
		25	D6 Pineland Farm to Auburn Border
			D10 Freeport Downtown to Brunswick*
			D11 Freeport YMCA to Downtown
			D12 Beth Condon Ext to Freeport YMCA
			D13 Beth Condon Pathway
			36
Mountain Division Trail			
B2	Fryeburg to Standish*	9.8	
B3	Standish Border to Windham	5.7	
B4	Windham to Westbrook	5.0	
B5	Westbrook to Portland Trans Ctr	4.0	
		25	
Portland Connectors			
C1	Casco Bay Bridge	1.1	
C2	Fore River Parkway Trail Extension	1.0	
C3	Fore River Parkway Trail	2.6	
C4	Commercial, High, and York Streets	0.8	
C5	Eastern Promenade Trail	1.5	
C6	Tukey's Bridge to Roux Institute	0.7	
		8	

*These projects extend beyond the GPCOG/PACTS region. The mileages listed are for the portion of the corridor within the GPCOG/PACTS region only.

The 8 completed projects in the Greater Portland region cover 33 miles. The 14 prioritized projects would add 54 new miles. At least as importantly, these 14 projects and their additional 54 miles would transform the largely isolated bikeway segments that exist today into a true arterial network. Each of the 25 project/planning segments in the Greater Portland regional vision is described briefly below.

Also included in this section is a cost overview of the prioritized projects, broken down by project and project phase: feasibility study, preliminary engineering, final design, and construction. As detailed in the table on page 25, the total estimated cost to complete all the planning and design phases is about \$8 million. The total estimated construction cost is about \$50 million. *As noted, this vision should be a centerpiece of GPCOG's Connect 2045 plan.*

A. Eastern Trail

The Eastern Trail (ET) is the southern gateway to Maine’s bikeway arterial system. It runs from the New Hampshire border where the East Coast Greenway arrives in Maine, over the Route 1 Memorial Bridge from Portsmouth, and then from Kittery to Casco Bay Bridge into Portland, or to Bug Light Park in South Portland. Part of segment A6 and all of segments A7-A10 are in the GPCOG-PACTS region. The [Eastern Trail Alliance](#) is leading the effort to plan and support this active transportation arterial.



Eastern Trail		Miles
A6	Kennebunk to Biddeford*	4.8
A7	Biddeford-Saco "Over the River"	3.1
A8	Saco to Scarborough	7.8
A9	Scarborough to South Portland Gap	3.7
A10	South Portland Greenbelt	5.4
		25

A large part of the Eastern Trail through Greater Portland is already constructed or in process and used actively for a wide range of emission-free transportation and recreational activities. Specifically, segments A6, A8, and A10 are completed; and A9 is in process. *Segment A7 is a high priority for completion and, we hope, becomes part of the GPCOG Connect 2045 plan.*

A6 Kennebunk to Biddeford
Status: Completed

This 6.2-mile segment of completed trail (4.8 miles in the GOCOG-PACTS region) runs from Alewife Road in Kennebunk, through Arundel, to West Cole Road in Biddeford. The trail has a stone dust surface, and runs through largely wooded areas, across the Kennebunk River, and with entry points from many of the residential communities along the way. A widely recognized bike and pedestrian bridge crosses the Maine Turnpike near the southern end of this segment.

A7 Biddeford to Saco "Over the River" Project
Status: Planning
Preliminary Cost Estimate: \$10,500,000¹

This 3.1-mile segment through Biddeford and Saco fills a critical gap between the completed 6-mile ET corridor south to Kennebunk and the completed 8-mile ET corridor north to Scarborough. The cities of Saco and Biddeford are working together with the Eastern Trail Alliance to plan this section. A feasibility study was completed in 2022, using funding from the MaineDOT Partnership and Planning Initiative (PPI) and matching local funds. The study addressed the challenge of how to cross the Saco River. A bicycle and pedestrian facility will need to be constructed using a cantilever design off the existing railroad trestle across the river. The project also requires a rail with trail facility along an infrequently used but still active freight line. The Eastern Trail Alliance has requested a \$3.5 million FY2023 federal earmark to fund the design and 25% construction.

A8 Saco to Scarborough
Status: Completed

This 7.8-mile completed segment of the Eastern Trail runs from Thornton Academy in Saco to Black Point Road in Scarborough. The corridor passes through the beautiful scenery, birds, and other wildlife of Scarborough Marsh.

¹ Estimates are based on a MaineDOT PPI feasibility study wrapping up in spring 2022.



Segment A8: Eastern Trail over Scarborough Marsh (Credit: Eastern Trail Alliance)

A9 *Scarborough to South Portland “Close the Gap” Project*
Status: In Process

This 3.7-mile segment fills a critical gap between the completed 8-mile ET corridor south to Scarborough and the completed 5-mile ET corridor north to Bug Light in South Portland. Filling the gap involves the use of Eastern Road for 1.4 miles from the current ET trailhead at Black Point Road, followed by a 0.7-mile wooded path along the Nonesuch River, and then a 1.6-mile stretch of more complex crossings to reach Wainwright Field in South Portland. The project includes two larger bridges, one over the Nonesuch River, and a second over the rail yard just south of Pleasant Hill Road. The bridge over the rail yard will be roughly 210 feet long to accommodate the Amtrak Downeaster underneath. There are four additional water crossings that range between 14 feet and 28 feet to minimize impacts to wetlands. The project is anticipated to go out to bid in the spring of 2022, with construction likely through 2024 given the complexity.

A10 *South Portland Greenbelt*
Status: Completed

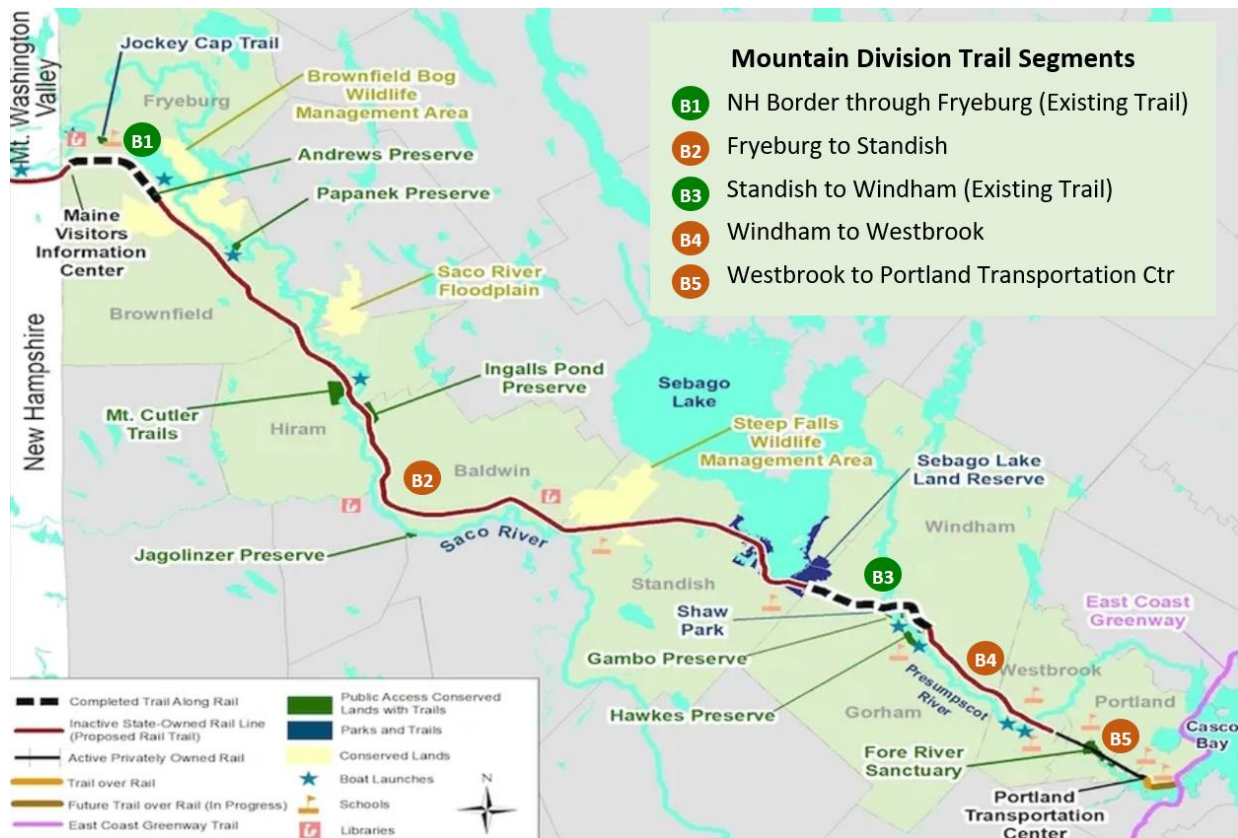
This 5.4-mile paved path runs from Wainwright Field in South Portland to Bug Light Park on Casco Bay. The path connects many residential and commercial areas of South Portland, and to the Casco Bay Bridge into downtown Portland.



Segment A10: South Portland Greenbelt (Credit: Deb Dawson)

B. Mountain Division Trail

The Mountain Division Trail is the western gateway to Maine’s bikeway arterial system, running 50-miles from the New Hampshire border in Fryeburg to the Portland Transportation Center, and from there, to the [Portland Trails](#) network, the Eastern Trail, and the Casco Bay Trail. The eastern end of the trail travels through one of the busiest commuting corridors in the state; so much so that the Maine Turnpike Authority is considering a new motorized vehicle spur with an estimated \$220 million cost for just a 5-mile roadway. Part of segment B2 and all of segments B3-B5 are in the GPCOG-PACTS region. The [Mountain Division Alliance](#) is leading the effort to plan and support this active transportation arterial.



Completed or In Process	Priority Projects	Early Planning
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Mountain Division Trail		
B2	Fryeburg to Standish*	9.8
B3	Standish Border to Windham	5.7
B4	Windham to Westbrook	5.0
B5	Westbrook to Portland Trans Ctr	4.0
		25

This arterial follows the Mountain Division rail corridor, which is mostly state-owned and unused by trains. A Rail Corridor Use Advisory Council has just evaluated the best use of the corridor from Standish west (segment B2) and has recommended an interim rail trail. The corridor

from Standish east to Portland (segments B3-B5) is envisioned as a rail with trail. The eastern portion is also commonly referred to as the Sebago to the Sea Trail. Segment B3 is completed. Segments B2, B4 and B5 are high priorities for completion and, we hope, become part of the GPCOG Connect 2045 plan.

B2 *Fryeburg to Standish*
Status: Planning
Preliminary Cost Estimate: \$5,002,947²

This 31-mile segment (10 miles in the GPCOG-PACTS region) follows Route 113 and the Saco River in the western part of the state and continues to the southern tip of Sebago Lake in Standish. There has been no active rail use on this corridor for over 40 years. The segment passes through Fryeburg, Brownfield, Hiram, Baldwin, Steep Falls, and Standish. As directed by emergency legislation enacted in 2021, Maine DOT appointed a Rail Corridor Advisory Council to evaluate future uses of this corridor, including as a rail trail. As noted, the Council’s [final report](#) recommended its use as a rail trail.

B3 *Standish to Windham*
Status: Completed

This 5.7-mile paved trail runs from the Standish-Gorham border through Gorham and Windham. The eastern section passes near Shaw Park, crosses the Presumpscot River, and then cuts through the Gambo Recreation Area. The western end, near Otter Ponds, connects with the Sebago Lake Land Reserve.



Segment B3: Mountain Division Trail

B4 *Windham to Westbrook*
Status: Design
Preliminary Cost Estimate: \$9,657,175³

This 5-mile segment follows the Presumpscot River from the existing rail trail in South Windham to East Bridge Street in Westbrook. Maine DOT recently awarded a \$350,000 grant to conduct a design and engineering study for a rail-with-trail on this segment, which will be combined with \$100,000 in local funds.

² Estimates are based on a 2021 feasibility study by HNTB using a trail-until-rail design, and for the portion in the GPCOG-PACTS region only.

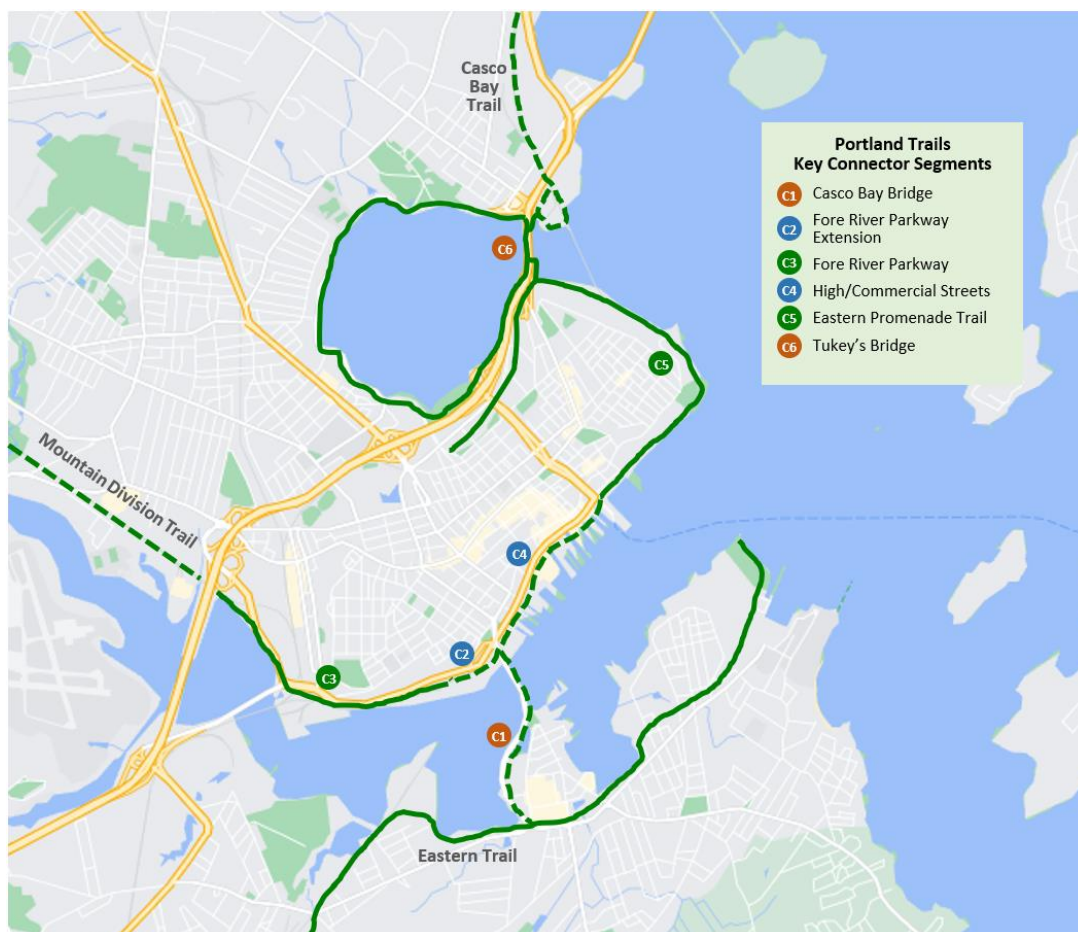
³ Estimates are based on a 2021 feasibility study by HNTB using a rail-with-trail design. The project has \$450,000 already designated for final design.

B5 Westbrook to Portland Transportation Center
Status: Planning
Preliminary Cost Estimate: \$8,941,648⁴

From the Portland Transportation Center, this 4-mile segment travels west through Fore River Sanctuary, over the Presumpscot River, and ending at East Bridge Street in Westbrook. Unlike segments B1-B4, which are owned by the state, this segment is owned by Pan Am and is part of the pending sale of Pan Am assets to CSX. It is used by two companies for freight: SAPPI occasionally and Dead River Company more regularly. The track appears to be used about once a day for transporting propane gas from the depot on Terminal Road. Some of the corridor is double track and the trains use the track on the north side. The track on the south side is inactive. A rail-with-trail facility is proposed to continue to allow these dual public purposes.

C. Portland Connectors

As Maine’s largest city, Portland is an important hub for active transportation arterials. Traffic-safe bikeway connections are needed from downtown to the Eastern Trail to the south, the Mountain Division Trail to the west, and the Casco Bay Trail to the north.



⁴ Estimates are based on a 2021 feasibility study by HNTB using a rail-with-trail design, because the corridor is privately owned and actively used for freight transportation.

Completed or In Process	Priority Projects	Early Planning
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Portland Connectors		Miles
C1	Casco Bay Bridge	1.1
C2	Fore River Parkway Trail Extension	1.0
C3	Fore River Parkway Trail	2.6
C4	Commercial, High, and York Streets	0.8
C5	Eastern Promenade Trail	1.5
C6	Tukey's Bridge to Roux Institute	0.7

There are six key connector segments through Portland. Segments C3 and C5, the Fore River Parkway Trail and the Eastern Promenade Trail, are completed.

8

The arterial connection between downtown Portland and the Eastern Trail requires an improved active transportation facility across the Casco Bay Bridge, priority segment C1. Access to the Mountain Division Trail from downtown Portland requires an extension of the Fore River Parkway into and through the Old Port, project segments C2 and C4. The gateway from downtown Portland to the Casco Bay Trail is through the planned Roux Institute campus in East Deering. The campus plan has bicycle and pedestrian paths and prioritizes both a trail loop around the campus and a trail connector beneath Tukey’s Bridge to the [Back Cove Trail, Bayside Trail, and Eastern Promenade Trail](#). This is priority segment C6. Other projects will be part of Portland’s [Better Bikeways Initiative](#).

C1 Casco Bay Bridge
Status: Design
Preliminary Cost Estimate: \$21,002⁵

This 1.1-mile segment over the Casco Bay Bridge is the critical connector between downtown Portland and all the Eastern Trail communities to the south. The bridge currently has a sidewalk with jersey barrier and on-road bike lanes in both directions. An upgraded bicycle facility would offer greater separation from motor vehicle traffic and reduce conflicts on the existing sidewalk, which is currently used frequently by cyclists who do not feel safe using the on-road bike lanes near speeding traffic. Improvement in the bridge access corridors for bicycles are also needed to clearly delineate where cyclists, pedestrians, and drivers should operate.



⁵ City of Portland, East Coast Greenway Alliance, and Bicycle Coalition of Maine developed a design with flex posts on existing bike lanes and additional paint at intersections.

C2 *Fore River Parkway Trail Extension*
Status: Early Planning

There is currently no off-road trail, side path, or traffic-separated bike lane on the 1-mile corridor between the Portland side of the Casco Bay Bridge and the Fore River Parkway to the west. A safe-from-traffic bikeway arterial is important on this corridor because it would connect the Mountain Division Trail to downtown Portland, as well as to the Eastern Trail going south and the Casco Bay Trail going north. The current buffered bike lanes painted on West Commercial Street do not offer this safe-from-traffic separation. An extension of the Fore River Parkway Trail along West Commercial Street and on to the southbound ramp to the Casco Bay Bridge could take the form of a side path or a separated bike lane and would provide a more suitable bikeway arterial through the City of Portland’s peninsula.

C3 *Fore River Parkway Trail*
Status: Completed

This 2.6-mile trail runs along Fore River from West Commercial Street, across the front of the Mercy Hospital campus, and on to the Portland Transportation Center, where it will connect to the envisioned Portland-to-Fryeburg Mountain Division Trail.

C4 *Commercial, High, and York Streets*
Status: Early Planning

There is currently no off-road trail, side path, or traffic-separated bike lane on the 0.8-mile corridor between the Portland side of the Casco Bay Bridge and the Eastern Promenade Trail to the east. A safe-from-traffic bikeway arterial is important on this corridor because it would link together all three primary arterials into downtown Portland: the Casco Bay Trail to the north, the Mountain Division Trail to the west, and the Eastern Trail to the south. The interim East Coast Greenway route through Portland is on-road, using parts of Commercial, High and York streets. None of these roadways currently have dedicated safe-from-traffic bicycle facilities. Moreover, the intersection of York Street and the Casco Bay Bridge is among the highest crash locations for cyclists in all of Portland. This should be a high priority for a future bikeway arterial.

C5 *Eastern Promenade Trail*
Status: Completed

This popular 1.5-mile waterfront multi-use trail has been called the “crown jewel” of Portland’s trail network. It is built along an old rail corridor and offers spectacular harbor and ocean views. It connects directly to Tukey’s Bridge and the Back Cove Trail.



Segment C5: Eastern Promenade Trail
(Credit: Deb Dawson)

C6 *Tukey's Bridge to Roux Institute*
Status: Planning
Preliminary Cost Estimate: \$2,569,252⁶

The gateway from downtown Portland to the Casco Bay Trail is through the planned Roux Institute campus in East Deering. The campus plan highlights bicycle and pedestrian access, and prioritizes both a trail loop around the campus, and a trail connector beneath Tukey's Bridge to the [Back Cove Trail, Bayside Trail and Eastern Promenade Trail](#). There is an existing bikeway over Tukey's bridge on the west side, but a pathway underneath Tukey's bridge on the north side will need to be constructed to connect it with the Roux campus trails and Casco Bay Trail.



Roux Institute Campus Vision
(Copied from Roux Institutional Development Plan)

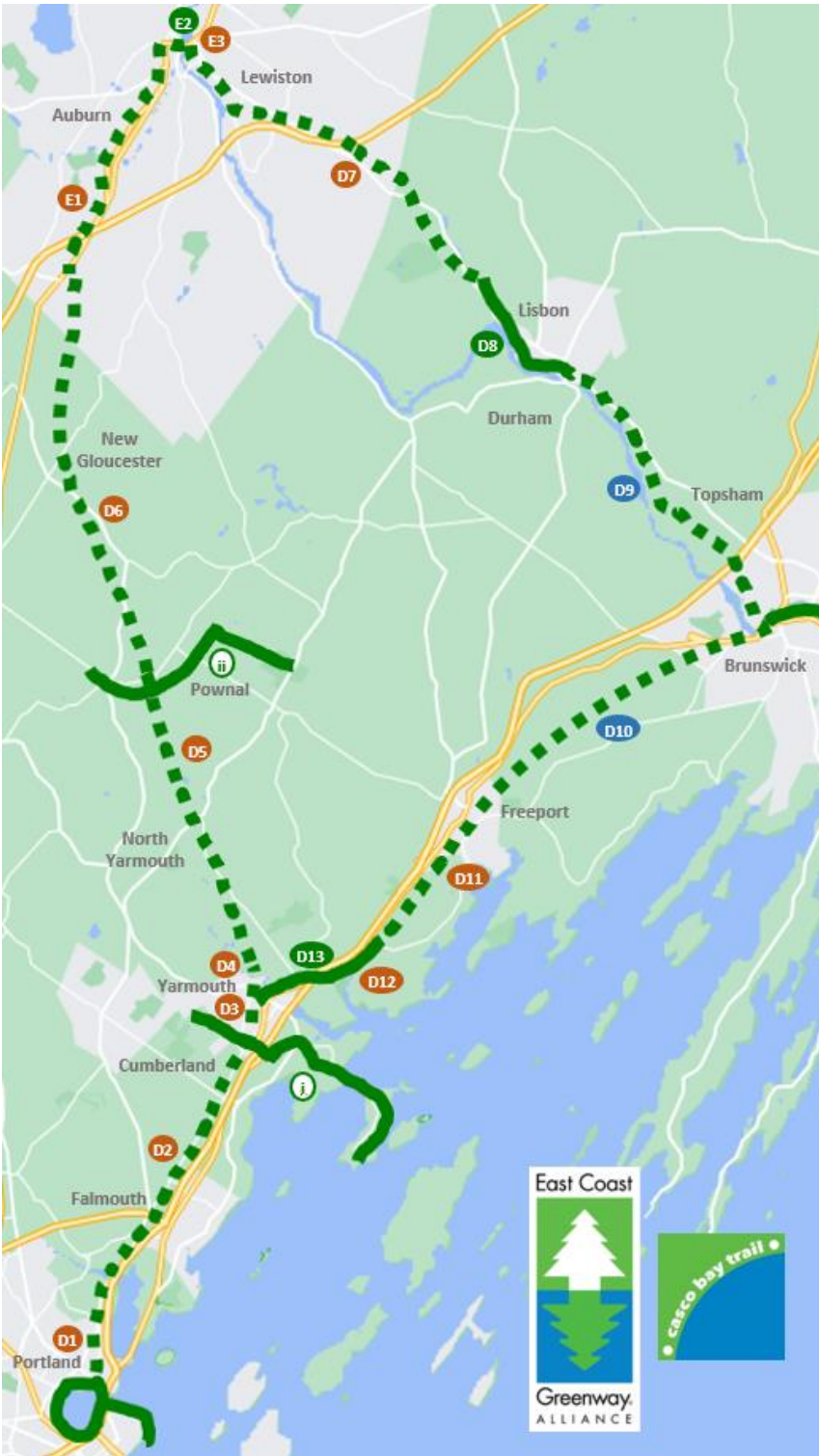


Segment C6: Illustration of Tukey's Bridge Underpass

⁶ The Roux Institute campus plan includes a multi-use trail loop with a connector beneath Tukey's Bridge to the Back Cove & Eastern Promenade Trails.

D. Casco Bay Trail Loop

The Casco Bay Trail loop is a 72-mile off-road bicycle and pedestrian pathway connecting 14 communities between Portland, Lewiston-Auburn, and Brunswick. Segments D1-D6, part of segment D10, and segments D11-D13 are in the GPCOG-PACTS region. The [Casco Bay Trail Alliance](#) is leading the effort to plan and support this active transportation corridor.



TRAIL SEGMENTS

Casco Bay Trail (S) and Royal River Greenbelt

- D1** Roux Institute to Presumpscot Street
- D2** Presumpscot Street to Downtown Yarmouth
- D3** Crosstown Pathway, Yarmouth
- D4** Main Street to Yarmouth Crossing
- D5** Yarmouth Crossing to Pineland Farm
- D6** Pineland Farm to Auburn Border

Lewiston-Auburn Trail Connectors

- E1** Auburn Border to Downtown Auburn
- E2** Lewiston and Auburn Riverwalks
- E3** Downtown Lewiston to Lewiston Lower Rail Trail

Androscoggin Trail and Casco Bay Trail (N)

- D7** Lewiston Lower Rail Trail
- D8** Lisbon Papermill Rail Trail
- D9** Lisbon to Brunswick
- D10** Brunswick to Downtown Freeport
- D11** Freeport YMCA to Downtown Freeport
- D12** Beth Condon Pathway Extension
- D13** Beth Condon Pathway

CONNECTOR TRAILS

- i** West Side Trail
- ii** Pineland to Bradbury Trail

Casco Bay Trail Alliance
March 2022

Completed or In Process		Priority Projects	Early Planning
Casco Bay Trail Loop		Miles	
D1	Roux Institute to Presumpscot St	1.2	The corridor from Portland to Yarmouth and forking right to Brunswick is referred to as the Casco Bay Trail. It is on another of the busiest commuting corridors in the state. The corridor forking left in Yarmouth to Auburn is referred to as the Royal River Greenbelt. It passes near many of the public preserves and parks of the Royal River watershed. The corridor from Lewiston-Auburn to Lisbon and on to Brunswick-Topsham is tentatively referred to as the Androscoggin Trail.
D2	Presumpscot St - Yarmouth	8.4	
D3	Yarmouth: Crosstown Pathway	0.3	
D4	Yarmouth: Main St to Yarmouth Crossing	0.8	
D5	Yarmouth Crossing to Pineland Farm	7.0	
D6	Pineland Farm to Auburn Border	6.8	
D10	Freeport Downtown to Brunswick*	3.6	
D11	Freeport YMCA to Downtown	4.5	
D12	Beth Condon Ext to Freeport YMCA	1.3	
D13	Beth Condon Pathway	1.8	
		36	

The Casco Bay Trail loop would be anchored by a 25-mile rail trail on the St. Lawrence and Atlantic rail corridor from Portland to Auburn, which is state-owned and no longer used by trains. It is represented by segments D1 through D6 on the map on the previous page. The Casco Bay Trail Alliance has obtained municipal resolutions from Portland, Falmouth, Cumberland, Yarmouth, North Yarmouth, and Pownal, each of which asks Maine DOT to appoint a *Rail Corridor Use Advisory Council* for the St. Lawrence and Atlantic corridor, and to evaluate the prospective use of the corridor as a rail trail through their community.

Priority projects D1-D6 create the rail trail from Portland to Auburn. Priority projects D11 and D12 connect downtown Yarmouth and downtown Freeport. *These segments are high priorities for completion and, we hope, become part of GPCOG’s Connect 2045 plan.*

D1 Casco Bay Trail, Roux Institute to Presumpscot Street
Status: Planning
Preliminary Cost Estimate: \$2,897,152⁷

From the waterfront at the planned Roux Institute campus, the first 1.2-mile segment of the Casco Bay Trail presents distinct exploratory considerations, first because of the connectivity it offers to the East Deering neighborhood of Portland and the Presumpscot Elementary School, second because of the trail connector possibilities into the planned Roux Institute campus, and third because the Maine Yacht Center uses the rails to transport boats from the marina to its warehouses on Presumpscot Street. A rail-with-trail arrangement would allow for continued transportation of boats along the corridor. Also important to the planning for this segment is the restoration of public access to the full corridor to the shoreline. There is a potentially productive collaboration of interests between the Casco Bay Trail Alliance, Maine Yacht Center, Roux Institute, and other abutting property owners, making this segment a high priority for accelerated study of a rail with trail design.

⁷ Per-mile estimates are based on the 2021 feasibility study that was conducted by HNTB for the Mountain Division Trail, in this case using their estimates for a rail-with-trail facility.

D2 *Casco Bay Trail, Presumpscot Street to Downtown Yarmouth*
Status: Planning
Preliminary Cost Estimate: \$4,743,627⁸

This 8.4-mile segment parallels Route 295, connecting Portland, Falmouth, Cumberland, and Yarmouth. As noted, all four of these communities have passed resolutions of support for the *Rail Corridor Use Advisory Council* process that will evaluate its potential use as a rail trail. Key features of this segment include a picturesque bridge over the Presumpscot River, and linkage points with METRO in the East Deering neighborhood of Portland, near Lunt Road in Falmouth, at the Exit 15 Park n' Ride in Yarmouth, and in downtown Yarmouth.



Segment D2: Aerial View of SLA Corridor Approaching Portland

D3 *Crosstown Pathway, Yarmouth*
Status: Planning
Preliminary Cost Estimate: \$169,415

This 0.25-mile segment from Cleaves Street to Main Street in Yarmouth is a potential fast-track project, because of its double track, thereby allowing a rail with trail facility to proceed on a faster timetable than required to authorize a rail-to-trail conversion. It is important to the Yarmouth community because it connects Main Street with the existing Cleaves Street trailhead to Yarmouth High School.

D4 *Royal River Greenbelt, Main St to Yarmouth Crossing*
Status: Planning
Preliminary Cost Estimate: \$451,774

This 0.8-mile segment runs from Main Street through [Royal River Park](#), past the Yarmouth History Center on East Elm Street, and over a picturesque bridge crossing the Royal River. The segment ends at Yarmouth junction, where the SLA corridor crosses the active Amtrak train corridor.

D5 *Royal River Greenbelt, Yarmouth Crossing to Pineland Farm*
Status: Planning
Preliminary Cost Estimate: \$4,098,854

This 7.0-mile segment runs through the Royal River watershed, connecting Yarmouth, North Yarmouth, Pownal, and New Gloucester. Three of these communities passed resolutions of support for the *Rail Corridor Use Advisory Council* process that will evaluate its potential use as a rail trail. The route follows the Royal River near many park lands, including [Riverfront Woods](#)

⁸ For segments D2-D6, per-mile estimates are based on the 2021 feasibility study that was conducted by HNTB for the Mountain Division Trail, in this case using their estimates for a trail-until-rail design.

[Preserve](#), [Chandler Brook Preserve](#), Baston Park, the [Bradbury-to-Pineland Trail](#), and the [Pineland Farm Trail](#) network.

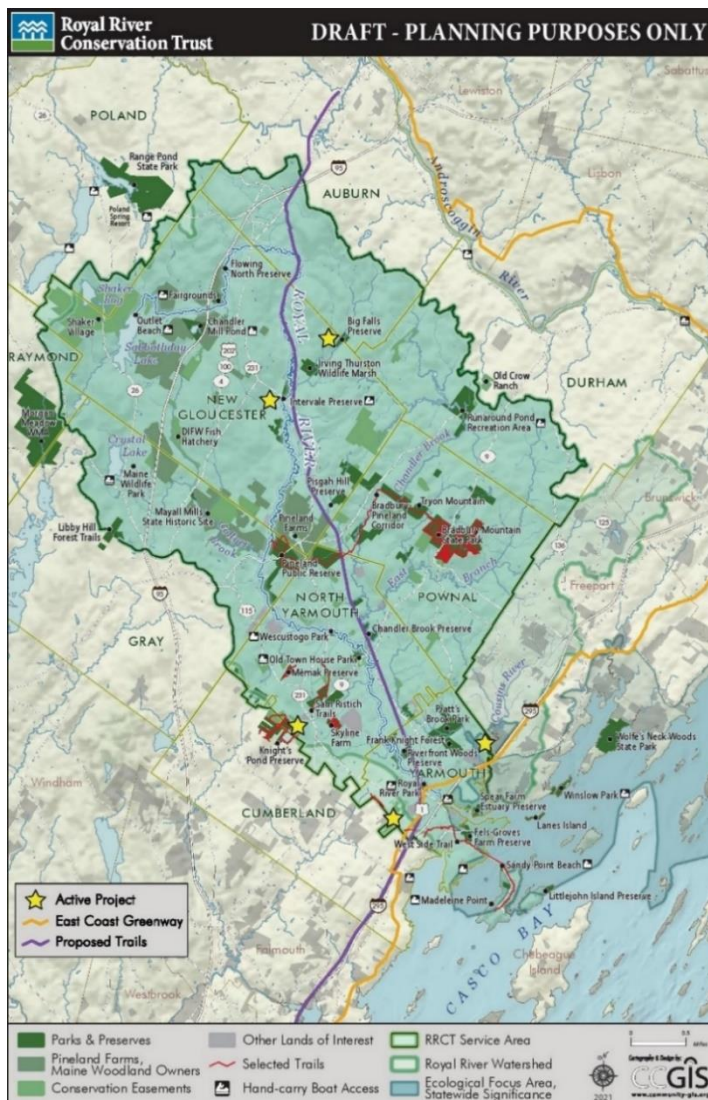
D6 *Royal River Greenbelt,
Pineland Farm to Auburn Border*
Status: Planning
Preliminary Cost Estimate: \$3,981,743

This 6.8-mile segment continues to follow the Royal River from New Gloucester to the Auburn border. It is the northern terminus of the state-owned St. Lawrence and Atlantic corridor and, like segment D5, crosses beautiful landscapes and is near several parks and preserves, including, [Pisgah Hill Preserve](#), [Intervale Preserve](#), and [Thurston Wildlife Marsh](#).



Segment D5: SLA Corridor Through Chandler Brook Preserve

Segments D5: Chandler Brook Preserve



Segments D2-D6
Connecting Parks in the
Royal River Watershed

D10 *Topsham-Brunswick to Downtown Freeport*
Status: Early Planning

While no specific route has been identified for this 8-mile segment (4 miles in the GPCOG-PACTS region), introductory meetings have been held with representatives from Freeport and Brunswick, and both communities have expressed support for bikeway connectivity, and for the Casco Bay Trail vision more generally.

D11 *Downtown Freeport to Freeport YMCA*
Status: Planning
Preliminary Cost Estimate: 2,634,976⁹

The Freeport Active Living Committee is leading a process called Connect Freeport, which among its priority projects, is a multi-use trail on this 4.5-mile segment from the Freeport YMCA to downtown Freeport. The Committee has identified a preliminary routing and is working with property owners and others on the necessary approvals. Also, as part of its headquarters redevelopment project, L.L. Bean negotiated a TIF agreement with the town of Freeport that includes substantial funding for the Concord Brook Trail section on their property. The route through L.L. Bean headquarters and its flagship store is an additional feature of this trail, and its prospective economic development impact. The segment fully connects the downtowns of Freeport and Yarmouth, and with the METRO bus system at multiple locations along the corridor. The Casco Bay Trail Alliance, in coordination with the Town of Freeport and East Coast Greenway Alliance, has requested a \$1.25 million FY23 federal earmark to fund the design and construction of this segment.



⁹ These estimates assume that no funding is needed for feasibility study due to a GIS assessment in 2020, though some additional feasibility analysis may still be needed. The construction estimates are based on a paved rail trail design (multi-use trail). The costs might be less if some portion of the corridor uses a stone dust surface rather than a paved surface. Total mileage could also change, depending on the final route selection.

D12 *Beth Condon Pathway Extension to Freeport YMCA*
Status: Design
Preliminary Cost Estimate: \$2,467,500¹⁰

This 1.3-mile segment runs under Route 295 at exit 17 in Yarmouth to the Cousins River, across the Cousins River bridge, and on to the Freeport YMCA. Most of this project is authorized and likely to be completed by 2024. The Exit 17 project has a detailed MaineDOT workplan in process. PACTS has funded a preliminary design report on the continuation segment from there to the Cousins River. The bridge across Cousins River is on the MaineDOT 2024 workplan. Funding still needs to be identified for the remaining distance from the Cousins River to the YMCA.

D13 *Beth Condon Pathway*
Status: Completed

This 2.6-mile paved path begins at the intersection of Route 1 and Portland Street in Yarmouth, and continues through the Royal River Park, and on to the Yarmouth-Freeport line. The southern end of the Beth Condon Pathway connects back to the St. Lawrence and Atlantic Rail corridor, and the envisioned rail trail back to Portland (segments D1 and D2). The Beth Condon Memorial Pathway is named in honor of a Yarmouth student who was struck by a drunk driver while walking along US Route 1.



Segment D13: Beth Condon Pathway

¹⁰ These estimates come from a 2021 feasibility study for the Beth Condon Pathway. Preliminary design for the segment from Exit 17 to the Cousins River was funded by PACTS for FY2022.

E. Cost Overview

The following table breaks down the preliminary estimated cost of prioritized projects into the feasibility study, preliminary engineering, final design, and construction phases.¹¹ The estimated total cost of all projects is approximately \$60 million.

MAINE BIKEWAY ARTERIAL - COST ESTIMATES							
Prioritized Segments							
<i>Created by: Kristine Keeney, East Coast Greenway Alliance, April 2022</i>							
	Miles	Status	Feasibility Study ^I	Preliminary Engineering ^{II}	Final Design ^{III}	Construction (\$2021) ^{IV}	Total
Eastern Trail							
A7 - Saco-Biddeford Connector	3.0	Planning	\$0	\$0	\$1,000,000	\$9,500,000	\$10,500,000
Mountain Division Trail							
B2 - Standish to Fryeburg*	9.8	Planning	\$0	\$345,336	\$230,224	\$4,427,387	\$5,002,947
B4 - Westbrook to Windham	5.0	Design	\$0	\$0	\$0	\$9,657,175	\$9,657,175
B5 - Westbrook to Portland	4.0	Planning	\$83,332	\$772,576	\$360,000	\$7,725,740	\$8,941,648
Portland Connectors							
C1 - Casco Bay Bridge	1.1	Design	\$0	\$0	\$0	\$21,002	\$21,002
C6 - Tukey's Bridge to Roux Inst	0.7	Planning	\$14,583	\$135,201	\$202,801	\$2,216,667	\$2,569,252
Casco Bay Trail Loop							
D1 - Roux Inst to Presumpscot St	1.2	Planning	\$0	\$231,772	\$347,658	\$2,317,722	\$2,897,152
D2 - Presumpscot St - Yarmouth	8.4	Planning	\$0	\$379,490	\$569,235	\$3,794,902	\$4,743,627
D3 - Crosstown Pathway	0.3	Planning	\$0	\$13,553	\$20,330	\$135,532	\$169,415
D4 - Yarmouth Main St to Crossing	0.8	Planning	\$0	\$36,142	\$54,213	\$361,419	\$451,774
D5 - Yarmouth to Pineland Farm	7.8	Planning	\$145,831	\$316,242	\$474,363	\$3,162,418	\$4,098,854
D6 - Pineland to Auburn Border	6.8	Planning	\$141,664	\$307,206	\$460,809	\$3,072,063	\$3,981,743
D11 - Freeport YMCA to Downtown	4.5	Planning	\$93,749	\$203,297	\$304,947	\$2,032,983	\$2,634,976
D12a - Cousins River to YMCA	0.3	Design	\$0	\$0	\$0	\$846,000	\$846,000
D12b - Exit 17 to Cousins River	0.5	Design	\$0	\$0	\$211,500	\$1,410,000	\$1,621,500
	<u>54.2</u>		<u>\$479,159</u>	<u>\$2,740,815</u>	<u>\$4,236,080</u>	<u>\$50,681,010</u>	<u>\$58,137,065</u>

*The cost estimates for segment B2 represent the proportionate share in the GPCOG-PACTS region (9.8 of 31 miles).

I — The feasibility study estimates are for incremental future costs only. They do not include amounts already expended for past or current surveys or completed feasibility studies. The estimates are based on a study budget of \$20,833 per mile, which was the average cost of two 2021 feasibility studies conducted by VHB for the Eastern Trail.

II/III — The design estimates are based on project specific costs, when available. When not available, the estimates use a per-mile figure, based on other comparable projects. The estimates do not include right-of-way costs (~\$5,000 per non-impacted abutter, \$25,000 per impacted abutter as of 2019).

IV — When available, construction estimates are based on completed feasibility studies and/or engineering designs, adjusted upward to reflect 2021 construction costs. They do not include mobilization or contingency costs, unless otherwise noted.

III. BALANCING TRAIN AND TRAIL PRIORITIES ON RAIL CORRIDORS

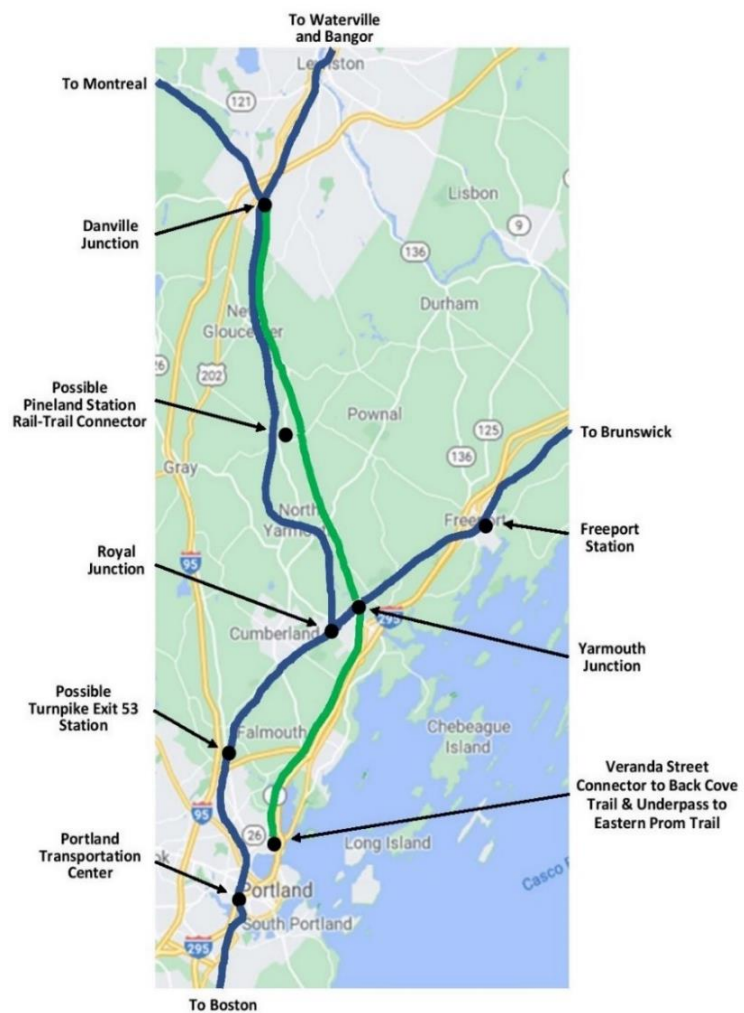
The bikeway arterials described in this report take advantage of several state-owned and privately-owned rail corridors that are no longer used by trains. This motivates an important discussion about what train services might be reestablished on selected corridors, how different corridors might be prioritized for trains, trails, or trail-with-rail facilities, and how the public good can best be served in the state’s continuing management of these resources. Maine DOT has established a *Rail Corridor Use Advisory Council* process that will consider these issues on state-owned corridors. *Rail Corridor Use Advisory Councils* are appointed to evaluate specific corridors at the request of one or more municipalities along a rail corridor. Councils have already been appointed for the Mountain Division rail corridor from Windham to Fryeburg and the St. Lawrence and Atlantic rail corridor from Portland to Auburn.

Portland to Lewiston-Auburn – Train and Trail Complementarity

Maine has two distinct rail corridors between Portland and Lewiston-Auburn. Based on their locations, current uses, and conditions, one of them makes more sense for trains, and the other as a rail trail; thereby enabling both public purposes to be achieved. These corridors are shown in blue (for trains) and green (for trails) on the map to the right.

There are many good reasons for prioritizing the active CSX corridor (in blue) for trains. It is a corridor that is already actively used by trains. It connects to the Portland Transportation Center, and thus with all train and bus services to Boston. It provides opportunities for new train stops at Turnpike Exit 53 and Pineland, as well as Lewiston, Auburn, and destinations north.

There are equally good reasons for prioritizing the inactive and state-owned St. Lawrence and Atlantic corridor (in green) as a trail. It is a corridor that is not being used by trains and would cost more to refurbish for trains. It is a corridor that dead ends at Veranda Street. It is a corridor that connects to many other trails and would be a key part of the bikeway arterial network described in this report.



IV. CONTACTS

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