

SECTION 4.

Needs Assessment

This section presents both systemwide and regional needs for the Erie Canal, NYS Canalway Water Trail, and the Erie Canalway Trail. Hubs and nodes for amenities are identified in each region, along with the amenity needs in each. A detailed gap analysis of key amenities is also presented.

Systemwide Needs and Opportunities

Through evaluation of amenities and activity centers, several systemwide needs and opportunities were identified to enhance the recreational user experience. These include:

1. investing in standardized wayfinding
2. enhancing placemaking at campsites
3. leveraging opportunities to encourage shared use of amenities by multiple user types
4. strengthening maintenance agreement processes

These targeted investments will support the goal of elevating the Erie Canal, NYS Canalway Water Trail, and the Erie Canalway Trail to a world class recreational destination.

1 Invest in Wayfinding

Wayfinding was one of the most commonly cited challenges expressed by stakeholder groups. They noted several sign types in need of enhancement, some of which are identified to the right. Canal Corporation is in the process of developing a comprehensive wayfinding system that will be implemented on land they own, but this would not apply to segments owned by other entities. The following sections identify specific wayfinding needs.



On-Road Trail Markers

Some portions of the Erie Canalway Trail are located on roads, which can pose a challenge for navigation. Users noted that increased signage for on-road portions, especially at turns or other decision points, would help with navigation. It should be noted that placement of these markers is regulated by the Federal Highway Administration's *Manual on Uniform Traffic Control Devices (MUTCD)* and NYS Department of Transportation's *TSMI-17-08, Guidance for the Empire State Trail*.



Mile Markers

Mile markers help users track their progress and convey their location in the event of an emergency. Though mile markers were well spaced in places where they have been installed, they are not consistently present and there are a variety of mile marker types. Two examples are provided above. A standard mile marker system is recommended. It should be noted that if on-road portions of the Erie Canalway Trail are converted to off-road, distances will change and a mile marker system would need to be updated, which would be a considerable capital expense.



NYS Canalway Water Trail Markers

Water Trail markers were recently installed at public access points on the NYS Canalway Water Trail. They are intended for users on the water to identify public take-outs by differentiating from private docks, as well as for landside users to identify public launch points. There are instances where these signs might be visible from the water but not from the road or nearby parking lot, which would be the first point of arrival for those launching. There may be an opportunity to add supplemental markers closer to landside access points.



Trail Destination Signs

Trail destination signs indicate the distance to the next milestone or destination along the Erie Canal, NYS Canalway Water Trail, and Erie Canalway Trail. Users rely on signs like these to track progress and make decisions about whether to stop and rest or continue to the next destination. There are a variety of sign types like these with varying designs and levels of detail. Users prefer signs that note both the distance to the next stopping point and what amenities they will be able to access when they arrive.



Off-Trail Destination Signs

Off-trail wayfinding signs are those that direct users to destinations and services located near the trail. There are a wide variety of these types of signs, including maps, arrows, and distances. Users prefer signs that provide direction to general centers of activity, such as downtowns and Central Business Districts. This is consistent with the wayfinding system that Canal Corporation is developing.

2 Enhance Placemaking at Campsites

Campsites were highlighted among users as a key resource for those who want to complete an affordable long-distance trip by bicycle, boat, or paddlecraft. In particular, users rely on primitive campsites, such as those located at locks and through community partnerships, for camping, but these locations often lack any sense of arrival, such as clear signage. Investment in these locations to create clear and consistent signage that indicates to users that they have arrived at a designated campsite and that they are permitted to stay overnight would create a more consistent and predictable experience, increasing confidence among users.



A typical primitive campsite at a lock has few defining characteristics to indicate that a user is permitted to camp there. (Lock 23, Clay)

3 Maximize Impact through Shared Amenities

The Erie Canal/NYS Canalway Water Trail and the Erie Canalway Trail are unique in that they are two parallel trails geared towards different types of users, however many amenities can benefit multiple user types. For example, a restroom located at a marina on the Erie Canal might have been intended for boater use, but bicyclists on the nearby Erie Canalway Trail would benefit from knowing it exists and having easy access to it. Finding opportunities to share amenities among user types maximizes the benefit from capital investment, supports maintenance efficiency, and creates a stronger nexus of activity. The following opportunities were identified to make amenities more widely available to multiple user types.

- **Expand use of long-distance trip amenities such as showers and laundry facilities**, which currently tend to be located at marinas and geared towards Erie Canal users. As the Erie Canalway Trail gains popularity for long-distance bicycling, enhanced wayfinding to direct Erie Canalway Trail users to these amenities would enhance access.

- **Enhance the paddler experience at locks and marinas.** Locks and marinas are designed for use by boaters and therefore feel out of scale for paddlers. Paddling stakeholders noted frustration when they arrive by water at a hub of activity but cannot access it due to high vertical walls or inadequate launches. Identifying key locations where hand launches such as low docks with rollers or adaptive launches can be installed would enhance the experience for paddlers. Similarly, as paddlers are not always comfortable locking through alongside larger boats, well-defined portage trails and highly visible signage would encourage paddlers to land and portage around the locks.
- **Cluster amenities at community gateways.** It was noted that although the trails pass directly through many communities, there is not always a clear connection to those communities, which is a missed opportunity. Placemaking, the process of designing and building public places that are inviting and uplifting to the community, can be used at points of connection to the community to strengthen ties to the trails, encourage trail users to visit the community, and create a nexus of activity among users.

4 Strengthen Maintenance Agreement Processes

It is imperative that recommended investments are implemented in compliance with state and local regulations and that they are maintained in the long term. With roughly 100 jurisdictions owning portions of the trail system, and countless private and non-profit entities operating on the trails, this can present a unique challenge. Maintenance agreements define responsibilities between entities, such as a community installing amenities on Canal Corporation land or non-profits installing amenities on municipal land. Strong maintenance agreements ensure the safety, functionality, and attractiveness of trail amenities long after they are installed.

Maintenance agreements currently exist in some cases but are not consistently used. Model agreements, combined with strong community engagement around the importance of maintenance agreements, could make this practice more commonplace to ensure amenity investments reach their maximum potential.



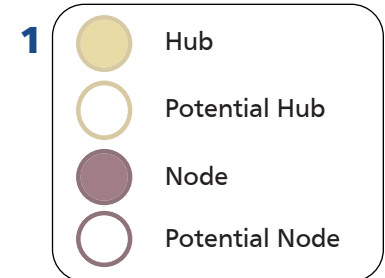
Cyclists on the Erie Canalway Trail in Niskayuna.

Regional Needs

For the purpose of this study, analysis and recommendations were divided into four regions, shown in Map 4.1. The following pages detail location-based recommendations specific to each region. In each region, there is a narrative description of needs and opportunities followed by a series of maps. Specifically, the following six elements will be included for each region.

1 Locations of Hubs and Nodes

A map of the general locations of hubs and nodes is shown for each region based on the criteria outlined in Section 3. Existing hubs and nodes are places where the hub and node criteria outlined in Section 2 are currently met. Proposed hubs and nodes are places where there is potential based on proximity to an activity center or strategic location along the trail, but would require significant amenity investment.



2 Existing Amenities at Hubs and Nodes

A summary map of the key amenities currently available at each hub and node is provided for each region. Amenities that do not currently exist are greyed out. Amenities in poor condition are outlined in red.



3 Gap Analysis by Amenity Type and User Group

A series of five maps shows the locations of key amenities along the trails, with specific needs and opportunities called out. These maps are not specific to hub and node locations. Poor condition amenities are outlined in red.



4 Needs and Opportunities at Hubs and Nodes

A narrative description of the location context of each hub and node is provided to highlight key needs and opportunities at each location. These are based on field observations as well as stakeholder input.

5 Additional Needs and Opportunities

A narrative description of needs and opportunities not specific to a hub or node is also provided. These are based on field observations as well as stakeholder input. They may note needs identified for the region overall or for a specific user group, such as bicyclists.

6 Summary Table

Each region concludes with a summary table of the recommended amenity investments at each hub and node, including the municipality and county where the hub or node is located along with the jurisdiction of the trail and whether trailside land is owned by Canal Corporation, DEC, OPRHP, or another entity.

MAP 4.1 Study Area Regions





Region 1: Rome to Waterford

Overview

Region 1 is the easternmost region, beginning at Bellamy Harbor Park in the City of Rome and continuing to the eastern terminus at the Waterford Harbor Visitor Center in Waterford. In this region, the Erie Canal is synonymous with the Mohawk River. Because the river is prone to flooding, there is limited waterfront development along the canal, which creates a challenge to activate it and connect users to nearby communities and activity centers.

Although the Erie Canal/NYS Canalway Water Trail and the Erie Canalway Trail run parallel to each other in this region, the Erie Canalway Trail is often located a few streets away from the waterfront, creating a visual disconnect. Enhancing wayfinding signage is especially important here to connect users to amenities.



At a Glance

115 miles

ERIE CANAL
NYS CANALWAY WATER TRAIL

118 miles

ERIE CANALWAY TRAIL

5

EXISTING
HUBS

9

EXISTING
NODES

MAP 4.2 Locations of Hubs and Nodes, Region 1



Note: Region 1 map includes overlap with Region 2.

Region 1 Hubs and Nodes

Map 4.2 illustrates the locations of hubs and nodes identified for Region 1. There are five existing hubs and nine existing nodes in this region.

Overview of Hubs

In Region 1, the five hubs are located at Bellamy Harbor Park in Rome, Little Falls, Amsterdam, Mohawk Harbor, and Waterford Harbor. Hubs are between 20 and 40 miles apart in this region. Map 4.3 indicates the amenities currently available at hubs, showing a strong concentration of amenities catering to the needs of both Erie Canal/NYS Canalway Water Trail and Erie Canalway Trail users.

Bellamy Harbor Park, Rome

Bellamy Harbor Park is a trailside park in Rome. The park has several large docks and hand launch facilities clearly marked with NYS Canalway Water Trail signage, along with the Rome Navigation Center which offers restrooms, drinking fountains, and showers. Since the Erie Canalway Trail runs along the road, many waterfront amenities are not easily visible from the trail. The park is far from any center of activity in the City of Rome. Enhanced wayfinding signage could assist users in connecting to off-trail amenities.

Little Falls

The Little Falls Marina is in excellent condition and offers several amenities for Erie Canalway Trail users, paddlers, and boaters. The Marina has a large building which includes visitor resources, ADA-compliant restrooms, meeting space, drinking water, and kayak and canoe rentals. There is a long dockwall for motorized boats, a concrete ramp for launching boats, and a floating dock for hand launches. The grounds at the marina are well-shaded and feature beautiful views of the water. Because the park and marina are about one mile west and on the opposite side of the river from the downtown area, it can be a challenge to access most shops and restaurants located downtown. Likewise, the Erie Canalway Trail is not visible from the marina, which makes it difficult for users to connect. An evaluation of the connections between the trails and downtown Little Falls should be considered, along with opportunities to enhance wayfinding.

Amsterdam

Amsterdam has amenities on both sides of the canal, with the northern side geared towards boaters and the southern side geared towards paddlers and bicyclists. There are considerable accessibility and connectivity challenges to consider, including steps leading down to the marina, but the many recent

investments in this area along with a dedicated pedestrian bridge connecting the two sides make it an excellent opportunity for a recreational hub.

Mohawk Harbor

Mohawk Harbor is a relatively new development with several shops, restaurants, and luxury apartments overlooking the harbor. Though geared towards Erie Canal users, the Erie Canalway Trail is located nearby and is well connected. A bike share station at Mohawk Harbor creates an opportunity for connection between land and water. This area is well activated with both indoor and outdoor public space, but the location feels private due to the lack of publicly available amenities. A public restroom near the water's edge would enhance the welcoming nature of the harbor (Map 4.4). Although there is a kayak rental and kayak launch located here, it's at the very end of the marina, a long walk from the parking lot. Stakeholders noted the importance of launches being located close to parking lots as paddlers must carry their watercraft to the launch. There may be an opportunity to relocate the launch closer to the parking lot. Paddlers generally noted that this location does not feel welcoming as you approach from the water. Additional signage to welcome paddlers would create a more engaging atmosphere.

Waterford

Waterford Harbor Visitor Center is the eastern terminus of the Erie Canal/ NYS Canalway Water Trail and the Erie Canalway Trail. This is a popular stop for long-distance boaters completing the Great Loop. Ample amenities serve both day trippers and long-distance users, and the area is activated with markets and events during the summer. The location is highly visible from the water and is close to downtown shops and services. Among the investments needed is an adaptive paddlecraft launch, but the topography presents a challenge for finding a logical location.

Overview of Nodes

In Region 1, there are nine nodes identified, including one identified as a potential node at Lock 20. Nodes tend to be located at locks, marinas, and local parks. Like the hubs, they have a strong concentration of amenities geared towards all user types. Map 4.3 shows amenities currently available at nodes.

Lock 20, Marcy

Lock 20 is a State Canal Park located in Marcy. Though there is not a center of activity close by, the park provides amenities for multiple user types and has clearly marked campsite locations. The amenities are easily visible from the trails.

Frankfort Harbor

Frankfort Harbor Marina is located in the center of Frankfort, with amenities for boaters and paddlers. The Erie Canalway Trail is on-road in this area and is a few blocks removed from the marina. Wayfinding signage could help to connect bicyclists to amenities at the harbor.

Ilion

The Village of Ilion Marina is in the heart of Ilion and is well connected to the Erie Canalway Trail as well as nearby shops and restaurants. The Erie Canalway Trail runs through the marina parking lot

which is also an RV parking area. The marina serves both boaters and paddlers, and amenities are visible from the Erie Canalway Trail.

St. Johnsville Municipal Marina

This marina works well for boaters, with amenities such as camping, restrooms, and showers, but is poorly connected to the surrounding community and the Erie Canalway Trail is on the opposite side of the river. Enhanced bicycle and pedestrian connections, along with wayfinding, would help all users take advantage of these amenities.

Riverfront Park, Canajoharie

Canajoharie's Riverfront Park is a medium-sized park along the Mohawk River on the Erie Canal. While not far away, the park is also physically separated from downtown Canajoharie by I-90. The park features a large gazebo, picnic benches, swings, several interpretive signs, and a large dockwall for boats. A large parking lot is adjacent to the park and includes a single portable restroom facility. The only water access point for paddlers is just outside of the park, on the far side of the parking lot.

Kiwanis Park, Rotterdam

This park serves both paddlers and bicyclists in a small, well-contained area.

Because the park is cut off from other destinations by highways, it would be difficult to access off-trail amenities, but it serves as a good resting spot for trail users.

Aqueduct Park, Niskayuna

Amenities in this park are geared towards paddlers, but the Erie Canalway Trail runs adjacent to the park. Bicyclists and pedestrians would benefit from wayfinding to access the restrooms and drinking fountain.

Lions Park, Niskayuna

Amenities in this local park are well clustered and can be easily accessed by both paddlers and bicyclists, except in late summer when water chestnut buildup can make it nearly impossible to access the water.

Crescent Terminal Wall/Crescent Park, Halfmoon

This park has few amenities but has potential to be activated due to the adaptive paddlecraft launch installed here. Additional amenity investments could elevate this location to a paddling destination.

Region 1 Amenity Needs and Opportunities

Maps 4.4-4.8 illustrate gaps between specific amenity types, indicating potential opportunities to fill these gaps. Specific needs and opportunities are described below.



Gaps in Drinking Fountains

Along the Erie Canal/NYS Canalway Water Trail, there is one large gap, about 55 miles, between drinking fountains at Little Falls and Kiwanis Park in Rotterdam. Based on best practices, the maximum spacing between drinking fountains should be 30 miles. There are two locations within this segment, St. Johnsville Municipal Marina and the City of Amsterdam, where permanent restrooms with plumbing may present opportunities to install additional drinking fountains to close this gap.

Activating Crescent Park, Halfmoon

Crescent Park in Halfmoon is an appealing location for investment because it is home to one of the few accessible hand launches on the NYS Canalway Water Trail. This is an important amenity that attracts a wide range of users in terms of ability and experience level. This location would benefit from additional

comfort amenities such as a portable restroom (Map 4.4) that could form the basis for building a nexus of activity and encouraging additional investment.

Stakeholders noted that there is a private convenience store within walking distance that allows users to use the restroom, which should be taken into consideration in determining the level of investment here.



Bike Rack Investments

While most amenities within this region are in good or fair condition, bike racks stand out as an amenity type where many are in poor condition (Map 4.8). These amenities should be evaluated for replacement.



Boat Rentals and Accessible Launches



Boat rentals are readily available in Region 1, especially in the eastern portion of the region between Schenectady and Waterford (Map 4.6). Three out of five hubs have boat rentals, as well as two nodes with boat rentals at Aqueduct Park in Niskayuna and Crescent Park in Halfmoon.

Bellamy Harbor Park and Amsterdam would benefit from boat rental opportunities and this would achieve the goal of including boat rentals at all hubs in this region.

Although there are countless hand launches in this region, there are only two fully accessible launches and three low docks with rollers (Map 4.6). Existing launch locations at hubs and nodes should be evaluated for opportunities to retrofit an adaptive launch.

Invasive Species

Invasive water chestnuts were mentioned by several stakeholders as a particular challenge for accessing the Erie Canal in this region. Aqueduct Park and Lions Park, both located in Niskayuna, have such severe growth that it can be impossible to access the water at certain times of year. Both paid and volunteer maintenance efforts should be explored to identify and remove this invasive species to enhance these locations.



Boater Amenities

As in the other three regions, amenities geared towards boaters were plentiful and well spaced. The majority of marinas in this region tend to be privately owned, though key public marinas like St. Johnsville and Frankfort Harbor are popular destinations. Waterford Harbor was noted as an important stopping point for long-distance boaters and Great Loopers, who enjoy stopping here to take part in the farmer's market and stop in the Visitor's Center.



Expanding Bike Rental Options

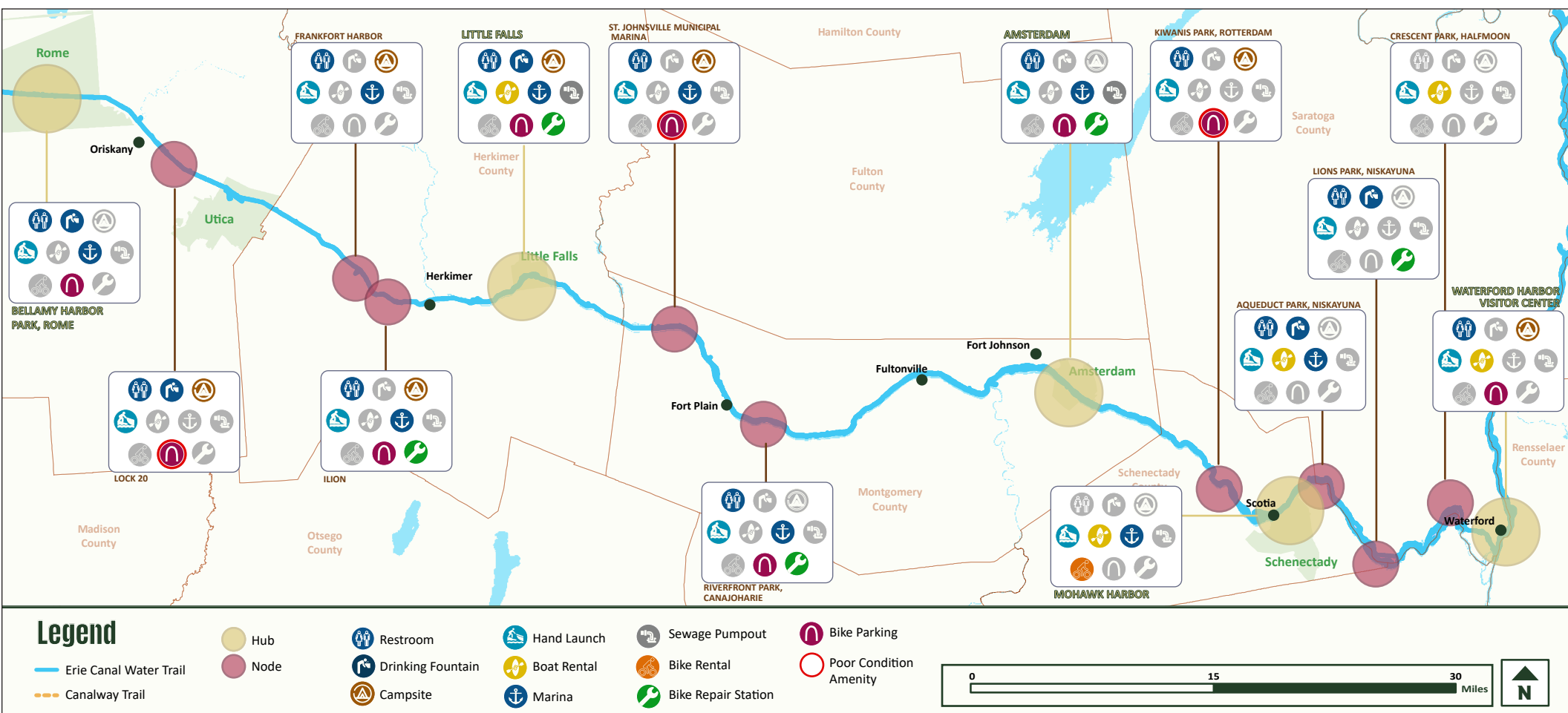
In the eastern segment of Region 1, Capital Bikeshare provides some opportunity for the community to try out bicycling on the Erie Canalway Trail. However, bike share tends to operate more as a public transit option, with shorter rental periods and heavy, slow moving bikes, as opposed to a recreation option. Bicycle rentals geared towards recreational trail use tend to allow for longer rental periods, such as a full day or multiple days, and would have bicycles well suited for trail use, along with accessories such as helmets, baskets, and bike locks. The Erie Canalway Trail inventory did not reveal any true bike rental locations like those seen further west. This region presents an opportunity to expand bike rental offerings, especially at hubs (Map 4.8). Bike rentals remove a barrier to use of the Erie Canalway Trail, allowing those who have never considered biking recreationally to try it for the first time.

City of Amsterdam

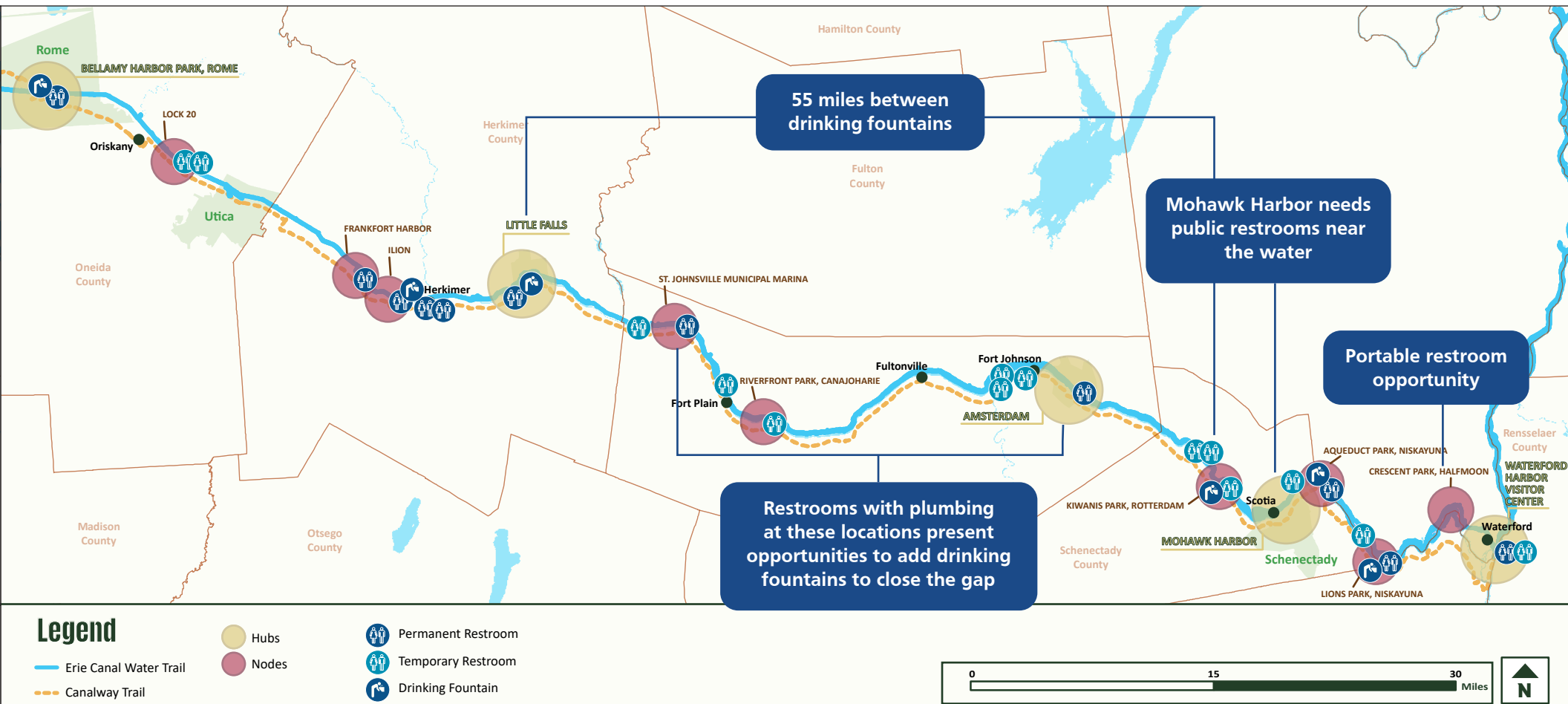
Amsterdam presents both opportunities and challenges for recreational use. There has been significant investment in the downtown, and the County is currently working to expand paddling amenities

on the southern shore, which is only a couple blocks removed from the Erie Canalway Trail. On the northern shore are many boater amenities, including showers and restrooms at a public marina. These two amenity centers are connected by a footbridge. However, the area's topography creates deep accessibility and connectivity issues. For example, the north shore amenities can only be reached through a staircase, which is not ADA compliant. This location has excellent potential for increased recreational use if these barriers to accessibility and connectivity can be overcome.

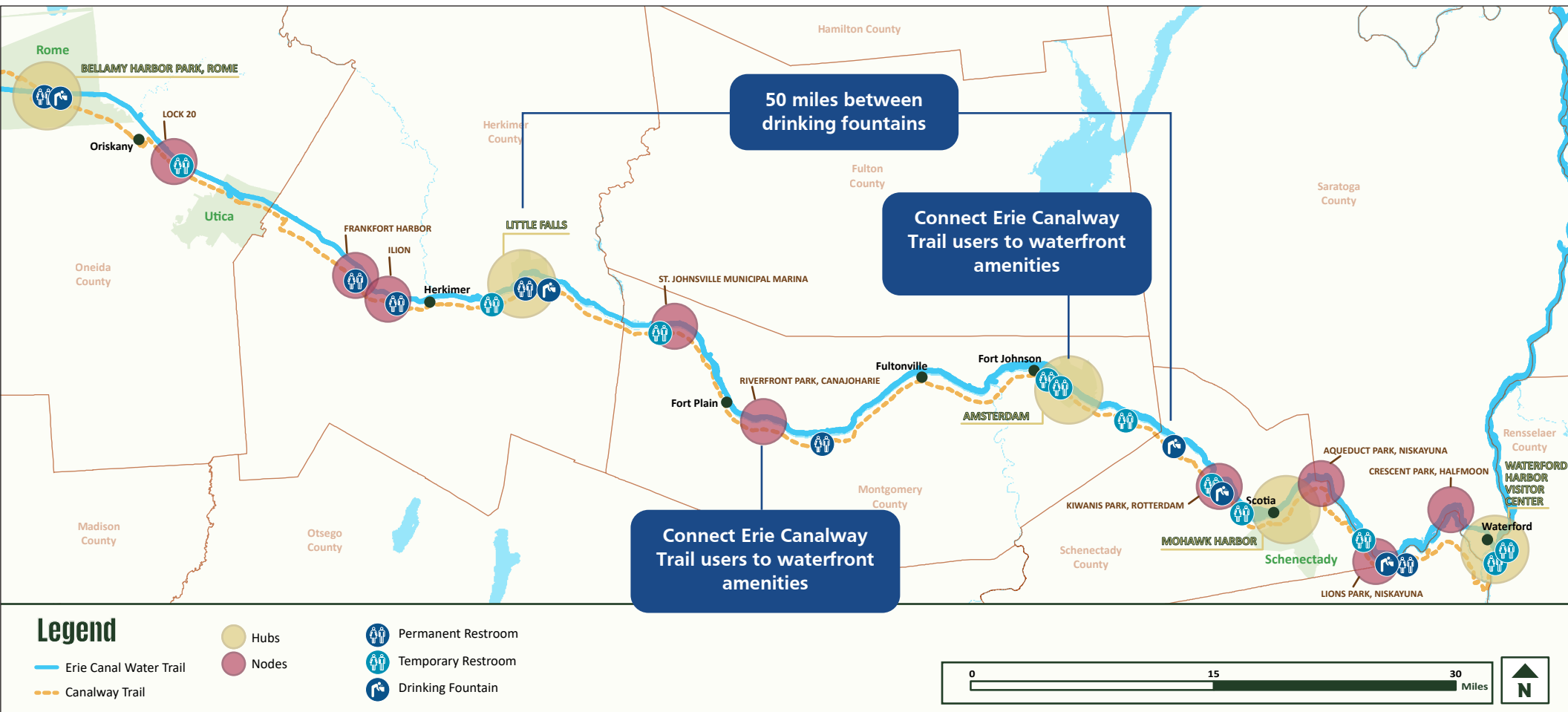
MAP 4.3 Existing Hub and Node Amenities, Region 1



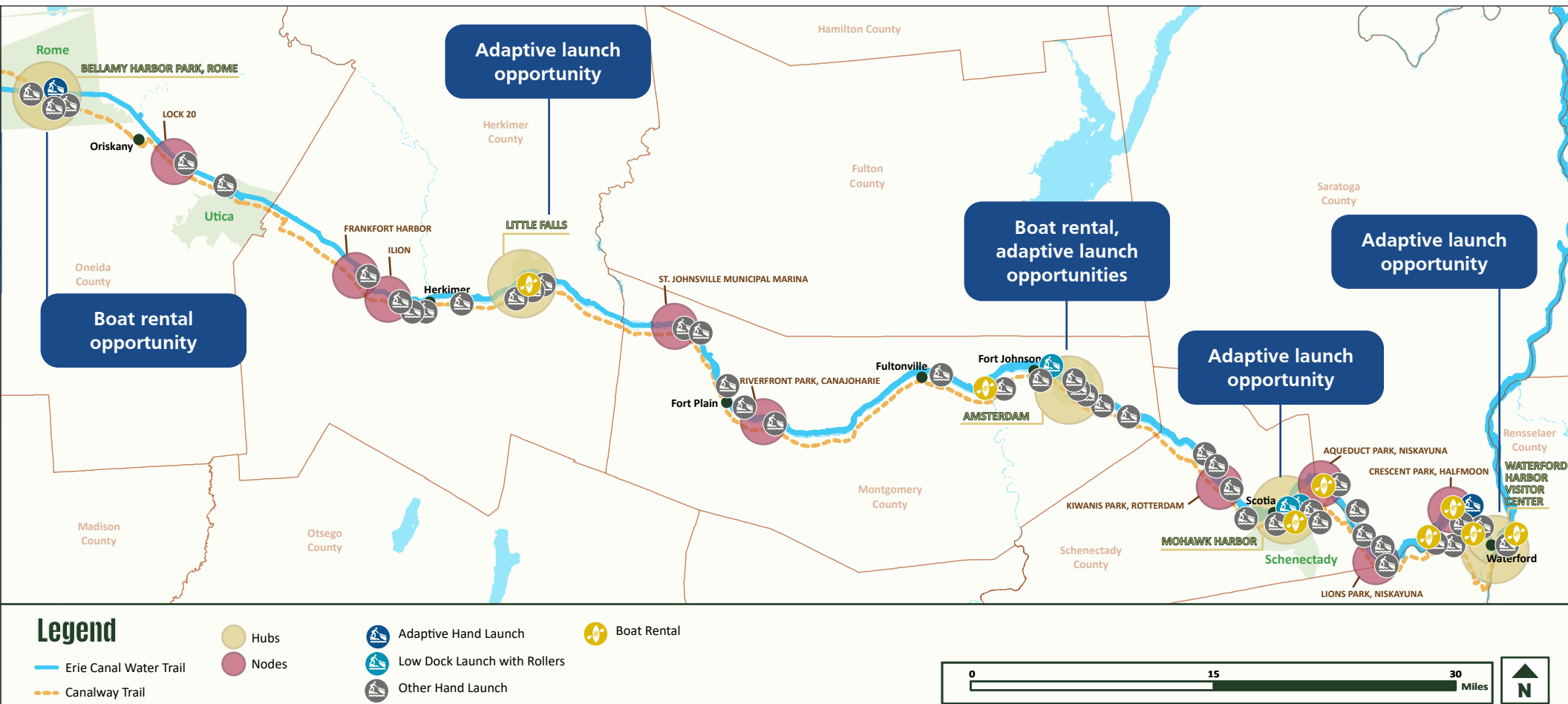
MAP 4.4 Existing Shared Amenities, Erie Canal and NYS Canalway Water Trail, Region 1



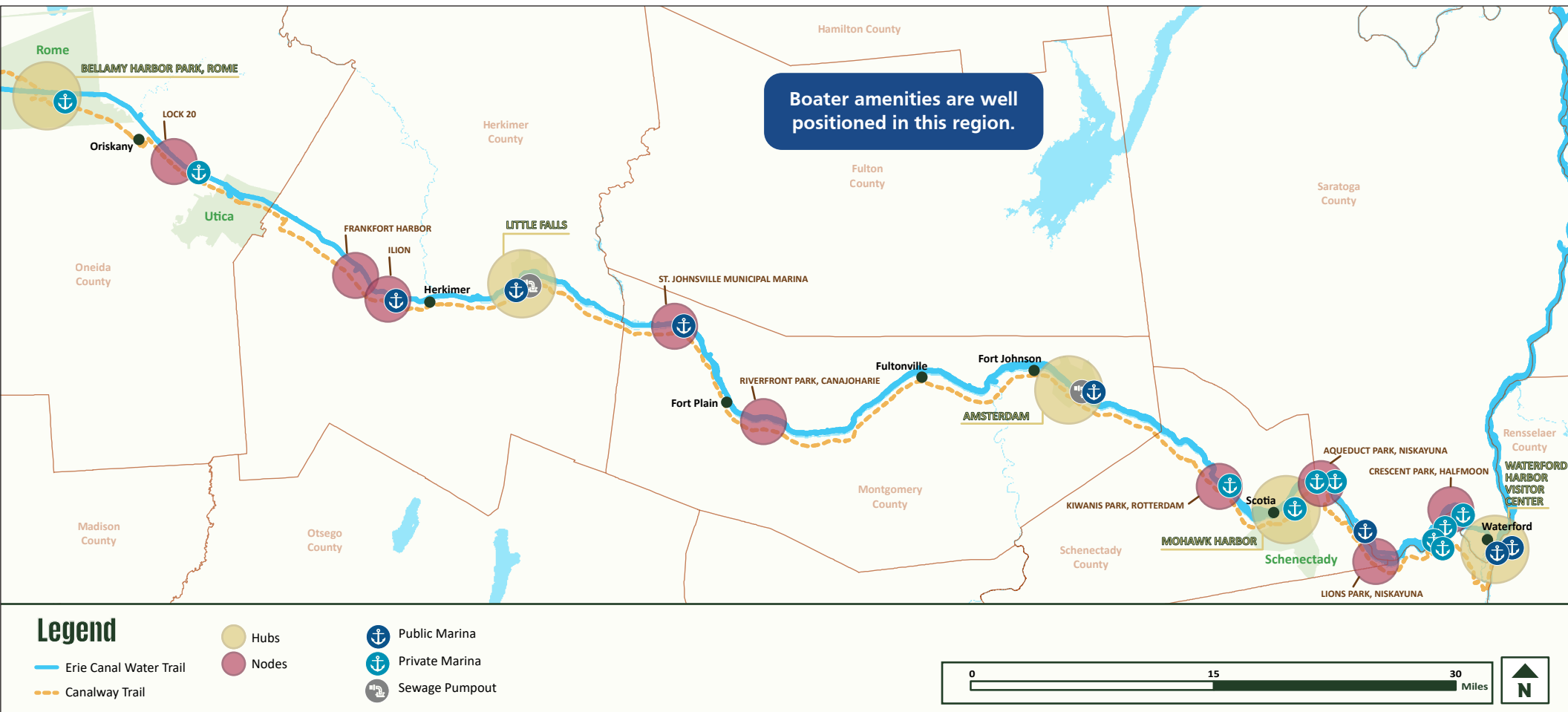
MAP 4.5 Existing Shared Amenities, Erie Canalway Trail, Region 1



MAP 4.6 Existing Paddler Amenities, Region 1



MAP 4.7 Existing Boater Amenities, Region 1



MAP 4.8 Existing Bicyclist Amenities, Region 1

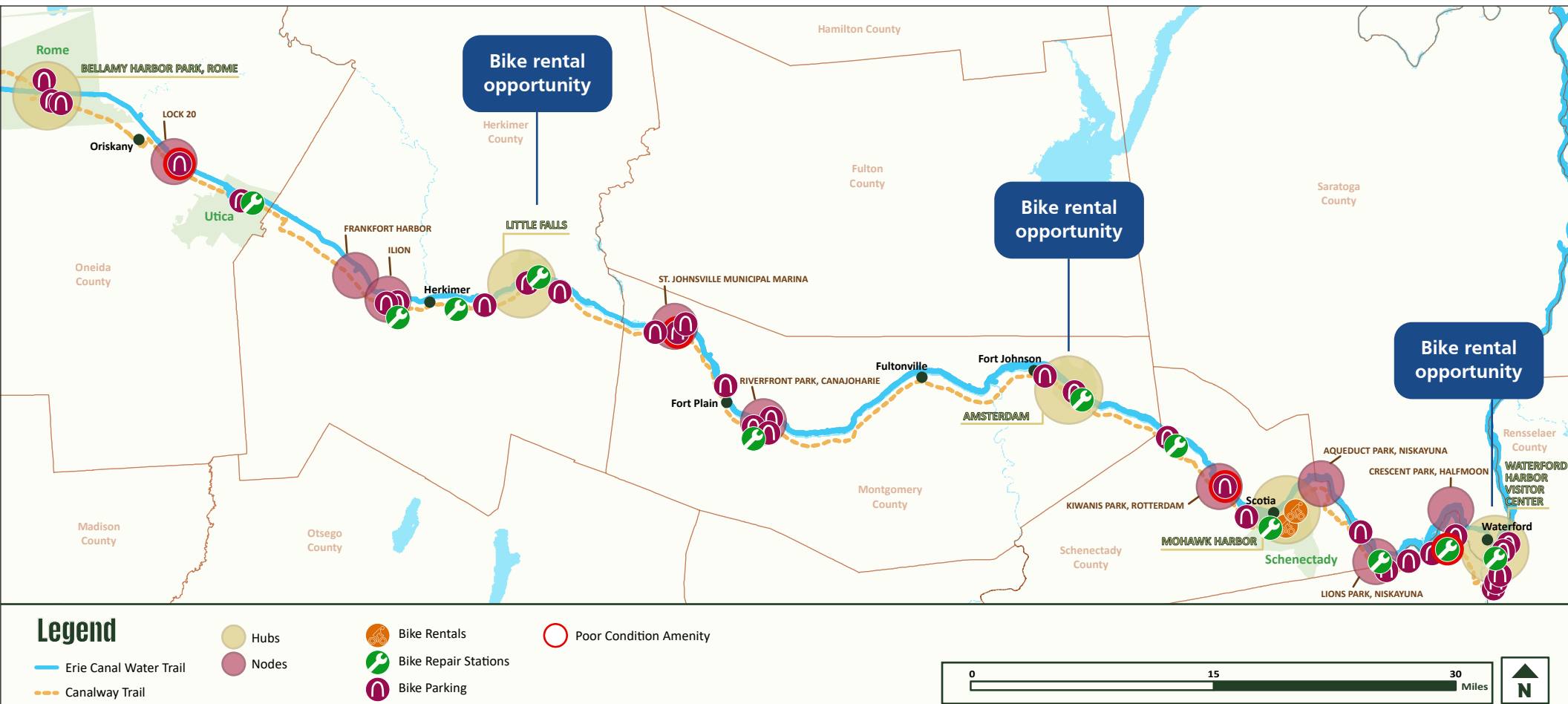


TABLE 4.1 Summary of Amenity Needs, Region 1

Hub/Node Name	Type	Amenities Needed	Municipality	County	Erie Canalway Trail Jurisdiction(s)	Land Jurisdiction(s)
Bellamy Harbor Park, Rome	Hub	Boat Rental Bike Rental Bike Repair Station	Rome	Oneida	NYSDOT	Canal Corporation Other
Lock 20, Marcy	Node	Bike Rack (poor condition) Bike Repair Station	Marcy	Oneida	Canal Corporation	Canal Corporation
Frankfort Harbor	Node	Bike Rack Bike Repair Station	Frankfort	Herkimer	Village of Frankfort	Canal Corporation
Ilion	Node		Ilion	Herkimer	Canal Corporation	Canal Corporation
Little Falls	Hub	Bike Rental Adaptive Hand Launch	Little Falls	Herkimer	City of Little Falls	Canal Corporation Other
St. Johnsville Municipal Marina	Node	Bike Rack (poor condition) Bike Repair Station Drinking Fountain (potential)	St. Johnsville	Montgomery	OPRHP	Canal Corporation
Riverfront Park, Canajoharie	Node		Canajoharie	Montgomery	Village of Canajoharie OPRHP	Canal Corporation Other
Amsterdam	Hub	Boat Rental Adaptive Hand Launch Bike Rental Drinking Fountain (potential)	Amsterdam	Montgomery	City of Amsterdam OPRHP	Canal Corporation Other

“Erie Canalway Trail Jurisdiction” refers to the entity or entities that own this segment of the Erie Canalway Trail. “Land Jurisdiction” refers to the entity or entities that own either the land surrounding the Erie Canalway Trail, such as a park with amenities that the trail passes through, or land used for Erie Canal/NYS Canalway Water Trail access points.

Hub/Node Name	Type	Amenities Needed	Municipality	County	Erie Canalway Trail Jurisdiction(s)	Land Jurisdiction(s)
Kiwanis Park, Rotterdam	Node	Bike Rack (poor condition) Bike Repair Station	Rotterdam	Schenectaday	Schenectady County	Canal Corporation Other
Mohawk Harbor	Hub	Restroom Bike Rack Bike Repair Station	Schenectady	Schenectady	OPRHP	Other
Aqueduct Park, Niskayuna	Node	Adaptive Hand Launch Bike Rack Bike Repair Station	Niskayuna	Schenectady	OPRHP	Canal Corporation
Lions Park, Niskayuna	Node	Bike Rack	Niskayuna	Schenectady	Town of Niskayuna	Canal Corporation Other
Crescent Park/Terminal Wall, Halfmoon	Node	Restroom Bike Rack Bike Repair Station	Halfmoon	Saratoga	n/a	Canal Corporation Other
Waterford Harbor Visitor Center	Hub	Adaptive Hand Launch Bike Rental Bike Repair Station	Waterford	Saratoga	Village of Waterford OPRHP	Canal Corporation OPRHP Other

“Erie Canalway Trail Jurisdiction” refers to the entity or entities that own this segment of the Erie Canalway Trail. “Land Jurisdiction” refers to the entity or entities that own either the land surrounding the Erie Canalway Trail, such as a park with amenities that the trail passes through, or land used for Erie Canal/NYS Canalway Water Trail access points.