



Amenities Study

Conditions Evaluation and Long-Term Planning for
Recreational Amenities on the Erie Canal

MARCH 2025



Erie Canalway National Heritage Corridor

P.O. Box 219
Waterford, NY 12188
eriecanalway.org

Published March 2025

About Erie Canalway National Heritage Corridor



The Erie Canalway National Heritage Corridor works to preserve and share our extraordinary heritage, to promote the Corridor as a world class tourism destination, and to foster vibrant communities connected by more than 500 miles of waterway. It achieves its mission in partnership with the National Park Service, New York State agencies, non-profit organizations, local residents, and more than 200 communities across upstate New York.

About New York State Canal Corporation



The New York State Canal System is operated and maintained by the New York State Canal Corporation, a subsidiary of the New York Power Authority. The New York State Canal System is the nation's largest state-run inland waterway system—operating since 1825 and including the Erie, Champlain, Oswego, and Cayuga-Seneca canals—plus more than 150 miles of recreational trails.

About the Mohawk River Basin Program



New York State Department of Environmental Conservation's Mohawk River Basin Program works to promote the integrated and coordinated management of the many environmental resources of the Mohawk River and its unique watershed. As a partnership-based initiative, the MRBP fosters collaborative decision-making based on an understanding of the entire ecosystem.

Erie Canalway National Heritage Corridor and NYS Canalway Corporation would like to acknowledge the many partners, stakeholders, and trail users who shared their knowledge, experience, and expertise to help guide this study.

This plan was prepared by Colliers Engineering & Design and Highland Planning LLC.



Funding for this report was provided by the New York State Canal Corporation and the New York State Department of Environmental Conservation.



Table of Contents

Section 1. Introduction	04
Section 2. Existing Conditions	16
Section 3. Best Practices	38
Section 4. Needs Assessment	48
Systemwide Needs	50
Region 1: Rome to Waterford	54
Region 2: Baldwinsville/Camillus to Rome	70
Region 3: Fairport to Baldwinsville/Camillus	80
Region 4: North Tonawanda to Fairport	92
Section 5. Action Items	104



SECTION 1.

Introduction

This section provides the background and rationale for the recreational amenities assessment, along with an overview of methodology and stakeholder engagement.



Introduction

The Erie Canalway National Heritage Corridor (Erie Canalway), in partnership with New York State Canal Corporation (Canal Corporation) have undertaken a conditions evaluation and needs assessment of amenities for recreational users of the Erie Canal, NYS Canalway Water Trail, and Erie Canalway Trail.

About the Erie Canal, NYS Canalway Water Trail, and Erie Canalway Trail

Spanning the State of New York from Waterford to the Tonawandas, the Erie Canal, NYS Canalway Water Trail, and Erie Canalway Trail are valued recreational assets that link history, community, culture, and recreation across New York State. The trails are widely used for walking, running, bicycling, paddling, and boating access. The trails are well loved by users of all ages, backgrounds, and abilities that include casual users, day trippers, commuters, and long-distance travelers.

Erie Canal and NYS Canalway Water Trail (338 miles)



The Erie Canal and NYS Canalway Water Trail are used by boaters and paddlers alike. Although this is a man-made structure, it traverses or intersects many naturally occurring water bodies, including lakes and rivers. The Mohawk River, a 140-mile river draining into the Hudson River in Waterford, is synonymous with the Erie Canal and NYS Canalway Water Trail from Rome to Waterford. Both power boats and paddle craft of all types are permitted, with marinas, boat launches, and hand launches available throughout.

Erie Canalway Trail (365 miles)



The Erie Canalway Trail varies widely along its length. As it traverses urban, suburban, and rural contexts, the trail surface ranges from wide paved paths, to stone dust trails, to dirt paths in some of the most remote areas. The trail follows the Erie Canal and NYS Canalway Water Trail closely in some places but deviates in other places. Although the majority of the Erie Canalway Trail is separated from the road, parts of it rely on on-road connections, about 60 miles in total. The trail is popular for walking, running, and bicycling. The Erie Canalway Trail is part of the Empire State Trail, which runs from New York City to Canada and Albany to Buffalo.

Trail Entities

Although the New York State Canal Corporation (Canal Corporation), a subsidiary of the New York Power Authority, operates, maintains, and promotes the New York State Canal System, there are countless entities who invest in and maintain the trails and their recreational amenities. This creates a unique experience as users encounter a wide variety of environments. However, it also poses a challenge for creating a consistent and predictable experience for users. This study considers how to overcome those challenges.

Erie Canalway National Heritage Corridor

The Erie Canalway National Heritage Corridor (Erie Canalway) is managed by a federal commission and not-for-profit that works together to preserve the Nation's extraordinary canal heritage, promote the Corridor as a world-class tourism destination, and foster vibrant communities connected by the water trail.

Erie Canalway manages the NYS Canalway Water Trail Stewardship program of over 85 volunteers who maintain and report maintenance concerns at Water Trail access points such as launches and locks. They also act as Water Trail ambassadors.

New York State Canal Corporation

The New York State Canal Corporation (Canal Corporation), a subsidiary of the New York Power Authority, operates, maintains, and promotes the New York State Canal System, which includes the Erie Canal, NYS Canalway Water Trail, and Erie Canalway Trail. Canal Corporation owns over 100 miles of the Erie Canalway Trail and over 35,000 acres of land along the Erie Canal and NYS Canalway Water Trail. In total, Canal Corporation maintains 524 miles of waterways.

Department of Environmental Conservation (DEC)

The Department of Environmental Conservation (DEC) owns and maintains land at several sites along the Erie Canal and NYS Canalway Water Trail, including several publicly accessible boat launches. DEC also created the Mohawk River Basin Program (MRBP), an initiative to preserve and restore the Mohawk River and its watershed's environmental quality and manage its resources for the future.

Office of Parks, Recreation, and Historic Preservation (OPRHP)

The New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) is a state agency that oversees more than 250 parks and open spaces across the state, including the Old Erie Canal State Historic Park, a 36-mile linear park that is synonymous with the Erie Canalway Trail from DeWitt to Rome.

OPRHP oversees the Empire State Trail (EST), a 750-mile trail stretching north from New York City to the Canadian border and west from Albany to Buffalo. The trail overlaps the entire length of the Erie Canalway Trail. There are signature Empire State Trail gateways and trailheads along the Erie Canalway Trail with consistent amenities and furnishings to welcome users.

Parks & Trails New York (PTNY)

Parks & Trails New York (PTNY) is a statewide advocate for parks and trails in New York State. They run the annual Cycle the Erie Canal event, a week-long guided cycling tour of the entire Erie Canalway Trail.

PTNY operates an Adopt-a-Trail Stewards program, where individuals adopt portions of the Erie Canalway Trail in their community to perform volunteer maintenance and ambassadorship. The program is active on the Erie Canalway Trail from Pendleton to Newark and Rome to Fort Herkimer.

Counties and Municipalities

There are over 200 trailside communities who either have jurisdiction over some portion of the Erie Canal, NYS Canalway Water Trail, and Erie Canalway Trail or trailside land, or have some other stake in its continued investment and enhancement. Some communities have implemented recreational amenities on land they own, including trailside parks, while others have entered into maintenance agreements with Canal Corporation to install amenities on Canal Corporation land.

Guiding Framework

A series of goals and guiding principles were established to provide a framework for data analysis and recommendations. The findings and recommendations detailed in this report will be used to prioritize future investments, provide justification for grant applications, support ongoing maintenance and operations, and encourage private investment on the trail.



A Vision for the Erie Canal

The Erie Canalway National Heritage Corridor and NYS Canal Corporation aspire to establish the Erie Canal, NYS Canalway Water Trail, and Erie Canalway Trail as a world-class destination for recreation and to gain recognition as one of the most accessible trails in the country.

As laid out in the NYS Canal Corporation's Canal Recreationway Commission's 2050 Plan, we envision an evolution of the New York State Canal System from a linear recreationway to a complete network of waterways, parks, and trails.

Study Questions

The overarching goal of the recreational user amenities study was to answer the following study questions:

- What types of amenities exist on the system?
- What is the condition of amenities on the system?
- What types of amenities are desired by recreational users?
- Where are there gaps in amenities along the system?
- What opportunities exist to enhance amenities to improve the user experience?

Program Goals

The findings and recommendations from this study will support the Erie Canalway National Heritage Corridor and NYS Canal Corporation's broader program goals, identified below. These goals helped frame data collection, analysis, and recommendations.

- Improve the recreational user experience
- Enhance the Canalway Corridor's distinct sense of place
- Improve amenities for people of all abilities
- Strengthen long-term stewardship of the system by users

Key Themes

Several key themes emerged during the course of this study that were identified as critical to achieving the programmatic goals. They are:

- Creating a consistent and predictable experience on the system
- Strengthening partnerships among various entities who own land or have another stake in the success of the system

The study questions, broader program goals, and key themes together created a framework for this study.

Study Area

The study area consists of the entirety of the Erie Canalway Trail (365 miles) and the Erie Canal and NYS Canalway Water Trail (338 miles), both stretching from the eastern terminus at Waterford Harbor Visitor Center in Waterford to the western terminus at Gateway Harbor Park in Tonawanda. The project team inventoried recreational amenities along the entire length of the Erie Canalway Trail and at public access points along the Erie Canal and NYS Canalway Water Trail.

Study Area Regions

For the purpose of analysis and recommendations, the system was divided into four regions, numbered from east to west, as listed below.

- **Region 1: Rome to Waterford**
- **Region 2: Baldwinsville (Erie Canal/ NYS Canalway Water Trail) or Camillus (Erie Canalway Trail) to Rome**
- **Region 3: Fairport to Baldwinsville (Erie Canal/NYS Canalway Water Trail) or Camillus (Erie Canalway Trail)**
- **Region 4: North Tonawanda to Fairport**



Study Area Regions

The Erie Canal, NYS Canalway Water Trail, and Erie Canalway Trail were divided into four regions, each with their own unique characteristics. Below is representative imagery from each region.



Paddling on the Mohawk River near Fort Hunter (Region 1)



Resting during a bike ride near Chittenango Landing (Region 2)

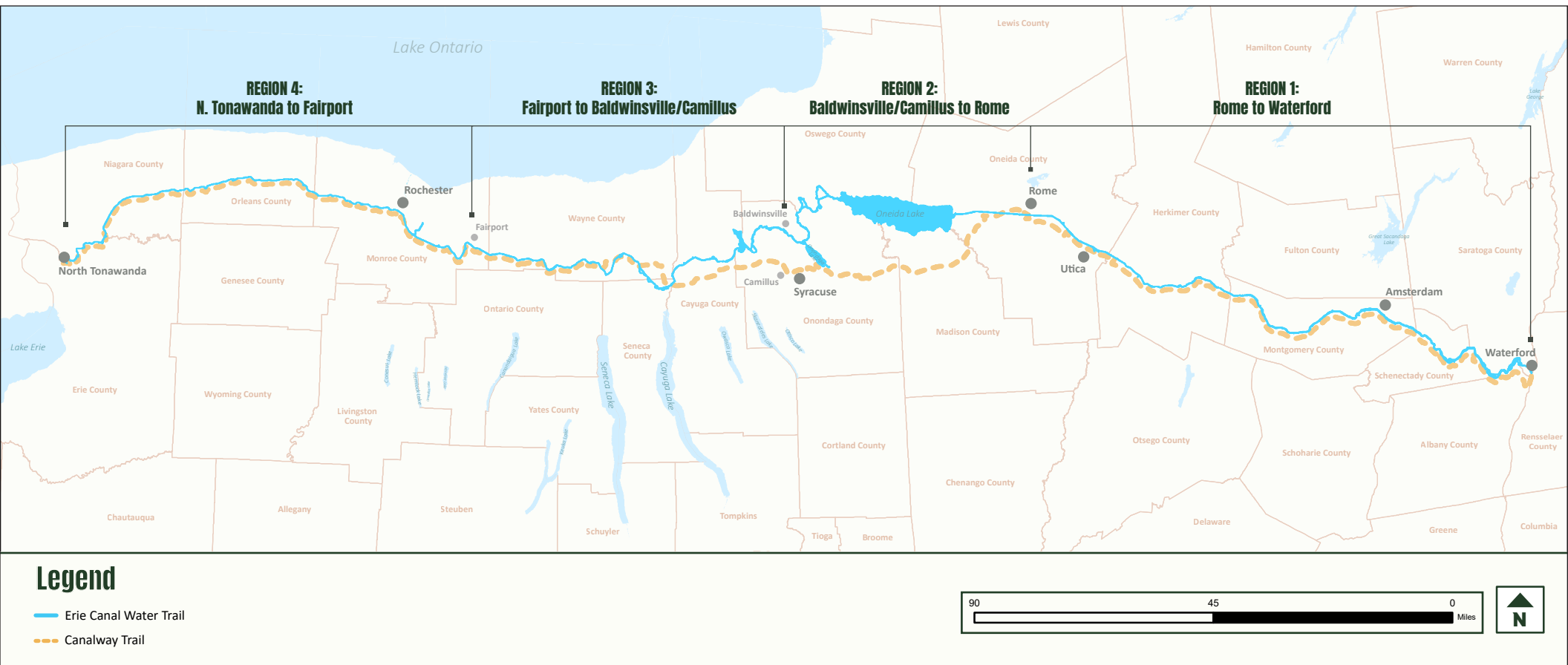


Paddling near Macedon (Region 3)



Boats moored in the Village of Fairport (Region 4)

MAP 1.1 Study Area Regions



Methodology

Developing findings and recommendations for recreational user amenities drew on a number of sources of information, including stakeholder interviews, data collection and analysis, and best practices research. The various methods are described below.

Guiding Documents

A number of planning and design guides were referenced to inform data collection, analysis, and recommendations. These included the *Canal Standard Site Amenities* document [forthcoming], the *New York State Canal System Hand-Launch Facility Design Guide*, and the *Empire State Trail Design Guide*.

The Mohawk River Basin Action Agenda (2021-2026) was referenced as it includes goals related to enhancing the recreational user experience, including creating an inventory of public access points along the Mohawk River region of the Erie Canal/NYS Canalway Water Trail, performing a gap analysis, and enhancing accessibility.

Several guidebooks were used to assist with locating trail access points and amenities, including the *NYS Canalway Water Trail Guidebook and Map Set*, the *PTNY Cycle the Erie Canal Map*, and the *PTNY Interactive Map of Camping along the Canalway Trail*.

Stakeholder Engagement

A series of 16 interviews and focus groups were held with stakeholders including partnering agencies, advocacy groups, and trail user groups. These meetings were held virtually and were designed to capture key user groups and interests from across the state.

Trail managers and trail use advocates such as Canal Corporation, PTNY, and Office of Parks, Recreation, and Historic Preservation (OPRHP) provided insight into the broad opportunities, challenges, and considerations for amenities investment. They noted the logistical challenges associated with managing a system of this size with more than thirty different ownership entities and maintenance jurisdictions. Rural, remote areas can be particularly challenging to maintain, making it difficult to install too many amenities in those areas. The challenge of creating a consistent user experience was highlighted consistently among stakeholder groups.

User groups provided local insight into what it is like to be trail user, the key amenities they need access to, the opportunities and challenges they have experienced, the locations they consider to be exceptional or aspirational in terms of access to amenities, and the places



Stakeholder Groups

The following entities and user groups were consulted through stakeholder meetings to inform analysis and recommendations.

NYS Canal Corporation

Mohawk River Watershed Basin Program, NYS Department of Environmental Conservation

NYS Office of Parks, Recreation, and Historic Preservation

Parks & Trails New York

NYS Canalway Water Trail Stewards

Accessibility

Paddling Rentals/Outfitters

Boating Groups/Associations

Tourism Hubs/Visitor Centers

Paddling User Groups

Rowing User Groups

Bicycling User Groups

Running User Groups

that are in need of investment. The amenity needs identified through engagement informed best practices for amenity spacing and the gap analysis, as well as the identification of hubs and nodes of activity.

Professionals in the accessible recreation space provided insights into best practices for investing in accessible amenities, including affordability, providing convenient locations that are well connected by transit, and seeking opportunities to create networks of accessible locations. This group in particular noted the importance of working with community partners who are invested in continually enhancing accessibility and maintaining adaptive equipment in the long term, understanding that continued maintenance and improvement is key to maintaining trust among this user group. Access to information about what to expect was also highlighted. Knowing what to expect before venturing out helps users make their own decisions in planning their trip.

Stakeholder interviews and focus groups yielded a wide range of needs and opportunities, but several focus areas were identified as ubiquitous to the recreational user experience.

- **Consistency and Predictability** The need for consistency and predictability, whether in terms of amenity type, condition, spacing, clustering, or the condition of the Erie Canalway Trail surface itself, was highlighted as paramount to enhancing the user experience, as it gives users confidence in knowing what to expect, especially on long-distance trips.
- **Wayfinding** The lack of consistent and adequate wayfinding was identified as a critical barrier to use. Users noted that mile markers and trail markers are not consistently used or appropriately spaced, and this can present a particular challenge to bicyclists navigating on-road portions of the Erie Canalway Trail where trail direction is not obvious. Users also noted the importance of consistent directional signage to point users to off-trail services and conveniences, as well as indicating the distance to the next milestone or amenity center.



Key Themes - Stakeholder Input

Maintenance

Variations in Amenities

Accessibility

Partnerships

Information Dissemination

- **Key Shared Amenities** Though different user groups make use of different types of amenities, most stakeholder groups noted that restrooms and drinking water were minimum amenities for all users. Stakeholders noted that there are portions of the system where these critical amenities are difficult to come by, making long-distance trips especially challenging.

Data Collection

The project team undertook a comprehensive data collection effort along the Erie Canal, NYS Canalway Water Trail, and Erie Canalway Trail, inventorying and assessing the condition of amenities geared towards recreational users. A full list of amenities inventoried is shown to the right. The list includes common amenities that would be shared by multiple user types, such as restrooms and drinking fountains, as well as user-specific amenities such as bike repair stations (bicyclists), hand launches (paddlers), and marinas (boaters).

The project team traversed the entire Erie Canalway Trail by bicycle and inventoried recreational amenities within the immediate vicinity of this trail. For the Erie Canal and NYS Canalway Water Trail, the project team visited public access points identified in the *NYS Canalway Water Trail Guidebook*, including parks, launches, locks, and marinas.

Data collection was limited to amenities that were readily visible from the trail. For example, many portions of the Erie Canalway Trail pass through community parks. In this scenario, a key amenity such as a restroom or drinking fountain that could be reasonably seen from the trail

was inventoried. Likewise, a bench or picnic area near the trail was inventoried. However, data collection did not include a full inventory of all amenities within a park just because the trail passed through it.

Amenities located on private property were not included in this analysis as they are not publicly accessible. For example, many users noted that restrooms and drinking water are often available in restaurants, convenience stores, and gas stations. Amenities at these locations were outside the scope of this study and were not collected. Likewise, the project team did not enter privately-owned campgrounds or marinas to collect individual amenities. Recognizing that these amenities were important to the gap analysis in Section 4, these locations were mapped based on secondary sources of information but were not assessed for condition.

Data Analysis

Following data collection, amenities were mapped to identify patterns and trends for amenity condition, gaps in amenities, and locations where amenities are concentrated. The data was also used to identify hubs and nodes of amenities where investment should be focused.



List of Amenities

The following trail amenities were inventoried for this study.

Bench
Bike Parking
Bike Rental
Bike Repair Station
Campsite
Drinking Fountain
EV Charging
Hand Launch
High Dock
Laundry
Marina
Parking
Pavilion
Picnic Area
Potable Water Spigot
Power Pedestal
Restroom
Sewage Pumpout
Shower
Sign
Table
Waste Receptacle

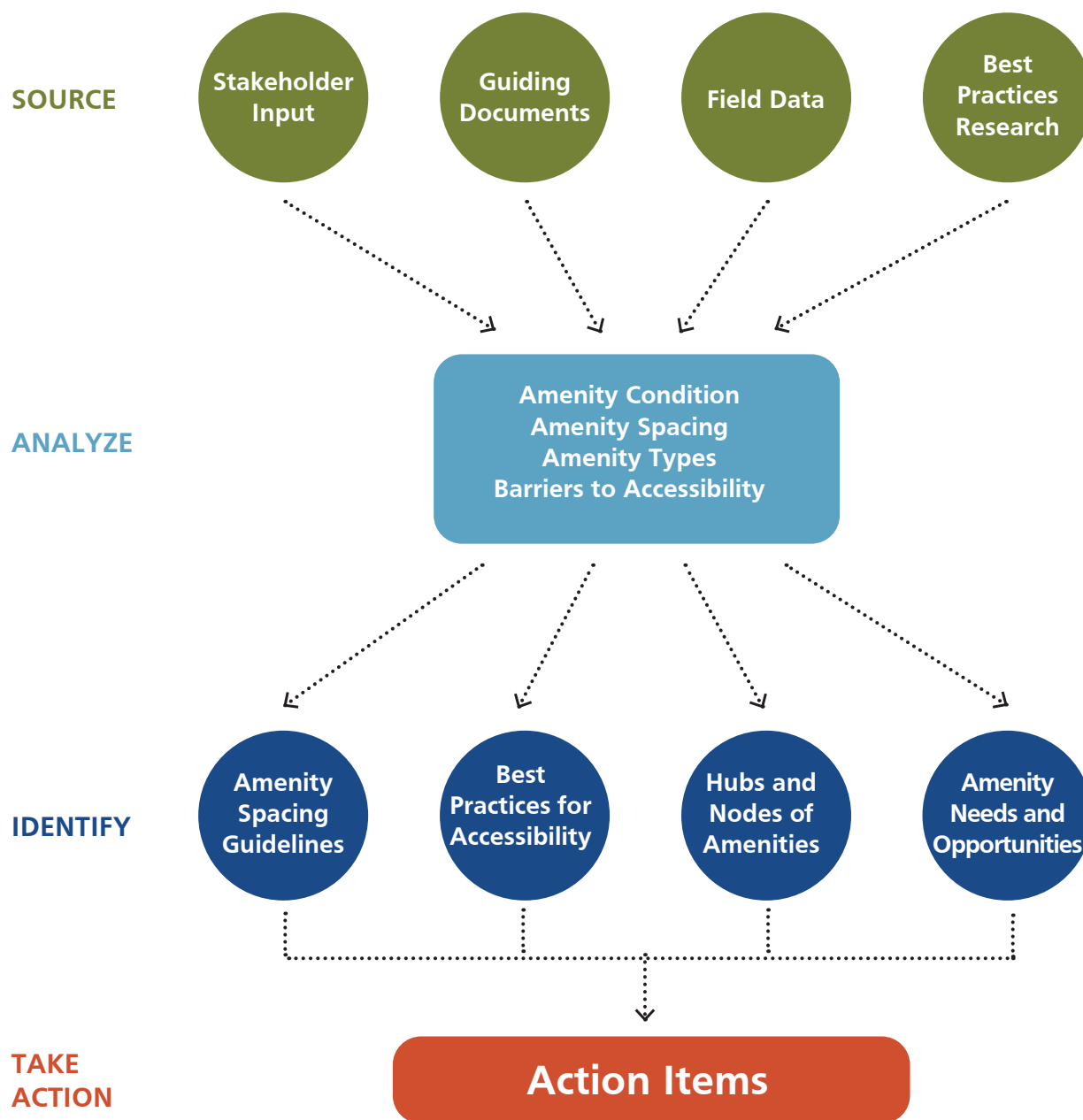
Best Practices Research

The project team conducted research on best practices for spacing amenities along the trail system. Peer trails such as the Great Allegheny Passage and the Chesapeake and Ohio Canal trails were explored to identify their strengths. Guidelines and standards for designing accessible amenities were also reviewed to develop guidance for enhancing accessibility along the trail.

Summary

The study process is summarized in the graphic to the right. A variety of sources, including guiding documents, stakeholder input, field data collection and observations, and best practices research were used to inform various data analyses (Section 2), amenity best practices (Section 3), and the needs assessment and recommendations (Section 4). They also informed key action items to build on the momentum of this study (Section 5).

FIGURE 1.1 Study Process





SECTION 2.

Existing Conditions

This section discusses the existing conditions of amenities on the system, including their condition and accessibility as evaluated during field data collection. Representative images of amenities of varying conditions are presented, as well as aspirational examples to guide future investment.

Existing Conditions

Overview

The project team inventoried amenities and collected physical attribute information, took photos, and assessed their condition and general barriers to accessibility. Over 6,500 amenities were inventoried across the system. Of those amenities inventoried, approximately 25% (1,629) are located on land owned by Canal Corporation.

Condition Rating System

The following definitions were used to guide amenity condition evaluations. These definitions were based on a recent Erie Canalway Trail asset inventory completed by Canal Corporation to maintain consistency in evaluation across studies.

- Good**
Limited surface material wear, structural elements are fully intact
- Fair**
Some sign of surface material wear and/or structural wear, but still functional
- Poor**
Significant surface material and/or structural wear; severely damaged or could fail if used

Systemwide Findings

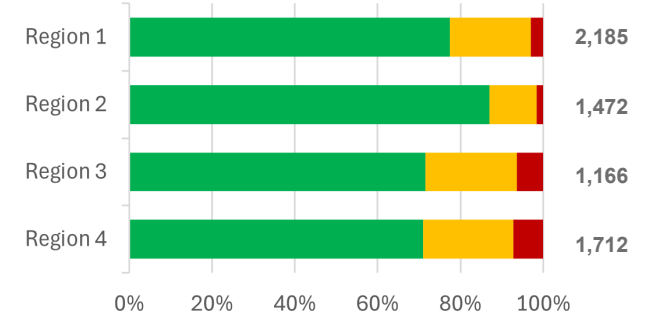
Figure 2.1 illustrates a systemwide view of the proportion of amenities in good, fair, and poor condition for the Erie Canal/NYS Canalway Trail and the Erie Canalway Trail. The numeric values to the right indicate the total number of amenities inventoried in each region. The overall condition of amenities was high, with over 75% of amenities rated as "good," less than 20% rated as "fair," and less than 5% rated as "poor." This breakdown tends to be consistent across the system, as shown in the summary charts.

Amenities on the Erie Canal and NYS Canalway Water Trail are in better condition than Erie Canalway Trail amenities overall. However, amenities on the eastern portion of the Erie Canal/NYS Canalway Water Trail (Regions 1 and 2) are in worse condition as compared to the western portion (Regions 3 and 4), pointing to a greater need for investment in repairs and replacement in these regions. On the Erie Canalway Trail, the opposite is true, with amenities in the western portion (Regions 3 and 4) in worse condition overall.

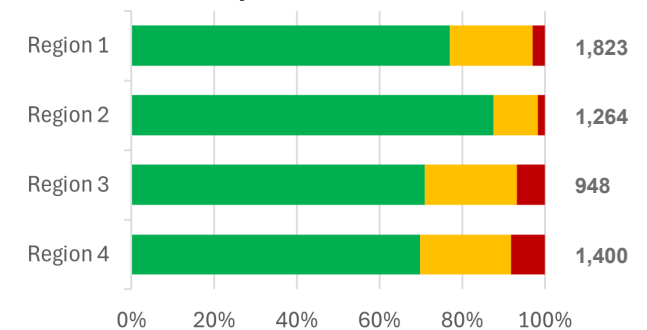
The following pages break down condition rating data by amenity and by region to give a more precise indication of where investments may be needed.

FIGURE 2.1 Amenity Condition by Trail

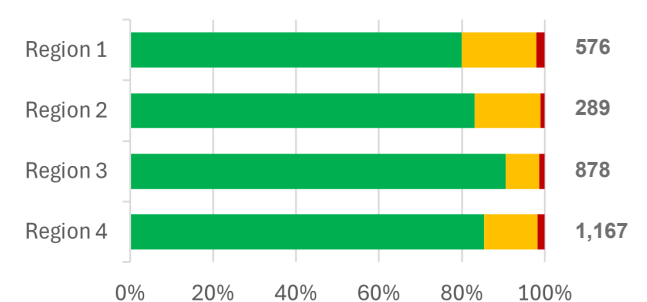
All Amenities



All Erie Canalway Trail Amenities



All Erie Canal/NYS Canalway Water Trail Amenities

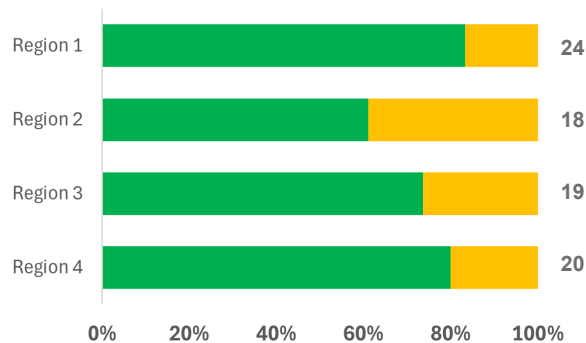


Restrooms

Restrooms were one of the most critical amenities identified by stakeholders to create a positive trail experience. The inventory included permanent restrooms, portable toilets, and compostable toilets. Stakeholders noted that most users do not mind using portable toilets as long as they are well maintained. Portable toilets provide an affordable alternative to permanent restrooms, which are one of the most expensive amenities to install and maintain.

As shown in Figure 2.2, restrooms were in good condition overall; there were no restrooms found to be in poor condition. The images to the right provide good condition examples of the range of restroom types inventoried.

FIGURE 2.2 Restroom Condition



GOOD - Permanent Restroom



These single-occupancy permanent restrooms were clean, functional, and well maintained. They were designed to maximize accessibility for all users. (Fairport)

GOOD - Composting Toilet



This self-composting toilet is well positioned near a picnic area and parking lot and enhances the aesthetics of the area. (Montezuma)

GOOD - Portable Toilet

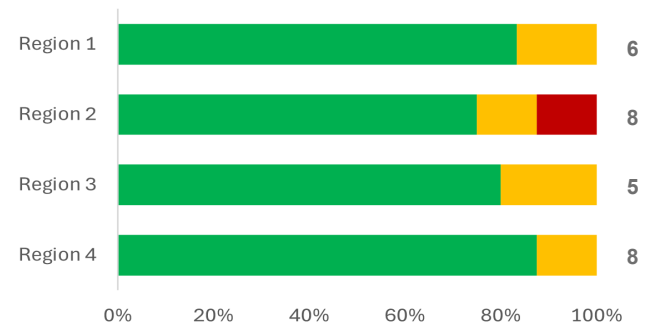


This portable toilet near Lock 33 is visible, located on a paved surface, and well maintained. It is also sized appropriately for those who use a mobility device or need assistance. (Rochester)

Drinking Fountains

Drinking fountains, like restrooms, were noted by stakeholders as critical to a positive trail experience. Overall drinking fountains were in good condition but were in worse condition in Regions 2 (Baldwinsville/Camillus to Rome) and 3 (Fairport to Baldwinsville/Camillus). The small total number of drinking fountains inventoried should be taken into consideration in reviewing Figure 2.3. The needs assessment in Section 4 will discuss the lack of drinking water access on the system in more detail.

FIGURE 2.3 Drinking Fountain Condition



GOOD



This drinking fountain provides options for users of all abilities as well as dogs. The material is in good condition, it is easily visible from the Erie Canalway Trail, and can be accessed from a paved surface. (Pattersonville)

GOOD



This drinking fountain provides options for bottle filling as well as drinking. Because it is located indoors, signage would help to direct users to it. (Amherst)

FAIR



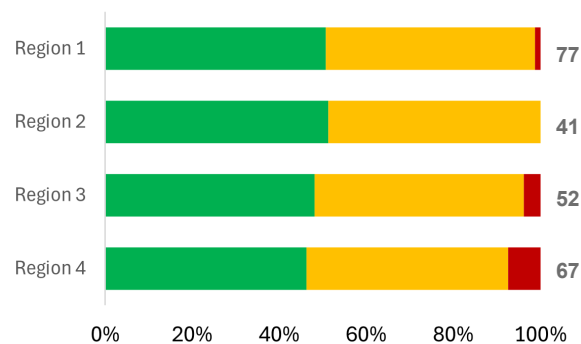
The stone drinking fountain is beginning to deteriorate but is still functional. Its location is tucked away from the Erie Canal/NYS Canalway Water Trail. (Baldwinsville)

Parking Lots

Parking lots are a key amenity for recreational users. Whether a user plans to bike, run, walk, boat, or paddle, parking lots are often the first point of access. Parking lots were in need of investment throughout the system, with about 50% in fair condition in each region. A phased maintenance schedule would prevent these amenities from reaching a state of disrepair all at once.

Parking lots are required by code to have a certain number of ADA-compliant stalls included. These stalls should be located closest to amenities to maximize accessibility.

FIGURE 2.4 Parking Lot Condition



GOOD

The pavement in this parking lot is in good condition and the spaces were clearly striped and signed. The parking lot also has designated spaces for boat trailers. (Ayrault Road Boat Launch, Perinton)



FAIR

This lot is beginning to show cracks and signs of wear. (Canajoharie)



POOR

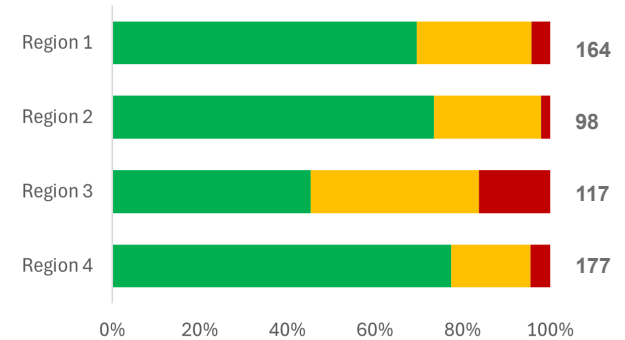
Significant ponding prevented much of this parking lot from being used. (Sprakers)



Benches

Benches provide opportunities for users to take breaks and rest along the trail. Benches were in moderate condition as compared to other amenity types, as shown in Figure 2.5. A significant percentage of benches in each region (20-40%) are in fair condition. In Region 3 (Fairport to Baldwinsville/Camillus), only 50% of benches were in good condition. In many areas, it was observed that there were more benches than might be needed. Though some may warrant replacement, there may be opportunities for selective removal of redundant benches that have exceeded their useful life.

FIGURE 2.5 Bench Condition



GOOD



This bench was securely installed, its surface was free of wear, and it was well positioned along the waterfront. (Pittsford)

GOOD



This wooden bench was in good condition but was not connected to the paved path, creating a barrier to accessibility. (Baldwinsville)

POOR

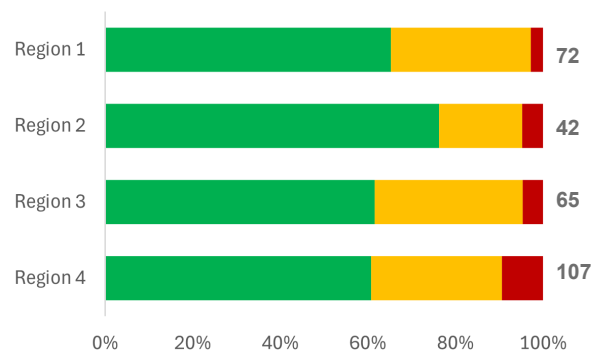


The material of this bench was deteriorating, the bench structure was in disrepair, and it is not accessible from the Erie Canalway Trail. (Rome)

Picnic Areas

Picnic areas range from formal sheltered dining areas, to grassy areas with tables and grills, to a single table. These are important resting places for short-distance and long-distance users alike, providing a comfortable place to take a break and have a meal or snack. Picnic areas are in need of investment throughout the system. As shown in Figure 2.6, 5-10% are in poor condition and another 20-30% are in fair condition depending on the region. Picnic areas should be positioned close to the trail as appropriate to make them as visible and accessible as possible.

FIGURE 2.6 Picnic Area Condition



GOOD

The shelter, tables, and waste receptacles are in good condition, the area is clean and well maintained, and there is a clearly marked, concrete path with no visible barriers to accessibility. (Baldwinsville)



FAIR

This picnic area shows signs of wear on the tables, grills, and grounds, but is still functional. (Marcy)



POOR

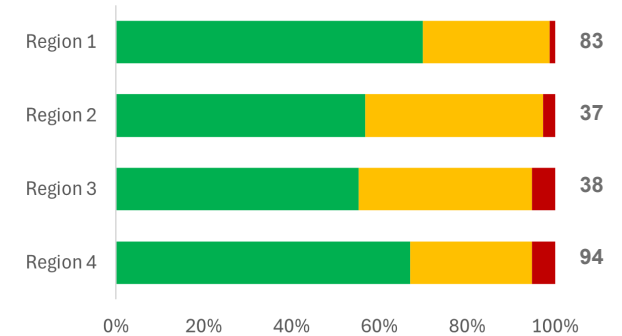
The benches are sagging and the material is worn and splintered. Its placement against a guard rail prevents full use. Picnic areas like these should be re-evaluated for better placement. (Kirkville)



Waste Receptacles

Waste receptacles were cited by users as a key amenity, especially when embarking on a trip or returning to your vehicle at the end of a trip. This inventory and analysis included both trash and recycling bins, though recycling bins were rarely encountered in the inventory. Waste receptacles are in need of upgrades throughout the system, with 30-40% in fair condition as shown in Figure 2.7. Though there were adequate waste receptacles overall, their placement was not always conducive to convenient use. When replacing or installing new waste receptacles, they should be placed near parking lots, restrooms, and picnic areas.

FIGURE 2.7 Waste Receptacle Condition



GOOD



This waste receptacle is made of durable material and shows no signs of wear. It is logically located near a picnic area. (Paper Mill Island, Baldwinsville)

FAIR



This waste receptacle shows some signs of wear but is generally functional and conveniently positioned at a public marina. (Utica)

POOR

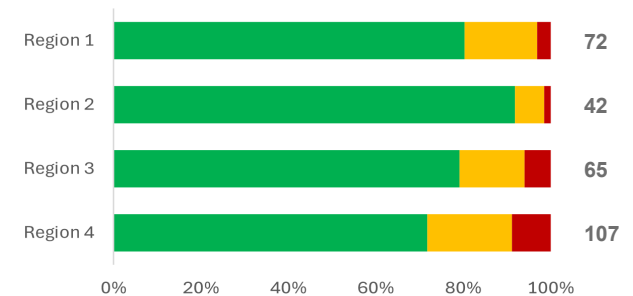


This receptacle is dented and damaged with noticeable surface wear, making it difficult to use and detracting from a positive experience. (Jordan)

Signage

A range of sign types were assessed as part of this inventory, including trail markers, wayfinding signs for destinations both on and off trail, and interpretive signs, which are used to highlight history, culture, and natural resources. Signs were in good condition overall, but were significantly worse in Region 4 (Tonawanda to Fairport) compared to other regions (see Figure 2.8). In evaluating signs in poor condition for replacement, there may be an opportunity to consolidate multiple signs on a single post to reduce sign clutter. As noted in Section 5, Canal Corporation has developed signage and wayfinding standards for their portions of the system but they have not yet been implemented.

FIGURE 2.8 Sign Condition



GOOD



NYS Canalway Water Trail Markers, which were installed in 2020, were generally in good condition. (Palmyra Aqueduct Park)

GOOD



These Erie Canalway Trail and Empire State Trail markers are easy to see and the color is intact. Co-locating these two markers helps with branding and navigation. (Canajoharie)

FAIR



In this example, the Empire State Trail marker is in good condition but the Erie Canalway Trail marker is beginning to fade and the arrow is damaged. (Camillus)

POOR



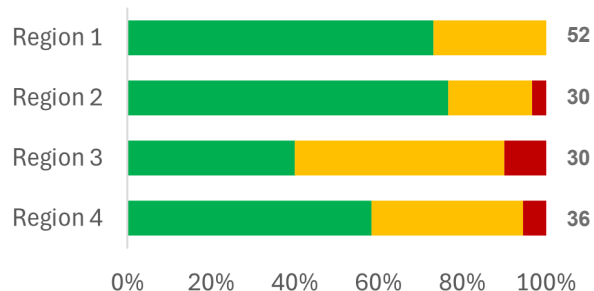
The Empire State Trail marker has been vandalized, making it illegible, and there is no Erie Canalway Trail marker visible, which can cause confusion. (Newark)

Hand Launches

For the purpose of this study, hand launches are defined as any facility that allows paddlecraft to enter the water, including roller docks, floating docks, banks, and concrete ramps. Hand launches are generally in need of investment, with nearly 40% in fair or poor condition overall. When comparing regions, Region 3 (Fairport to Baldwinsville) and Region 4 (Tonawanda to Fairport) are in significantly worse condition and require the most investment (see Figure 2.9). There may also be an opportunity to decommission launches that are not easy to access from a parking lot or roadway, such as the image to the bottom right.

While many types of launches were inventoried as part of this effort, low-profile dock examples are used in the images to the right to illustrate a comparison of condition.

FIGURE 2.9 Hand Launch Condition



GOOD

This low profile dock is connected to a stable surface that makes it easy to carry a kayak or canoe to the water. The material is durable and well maintained. (Amsterdam)



FAIR

This low profile dock is made of a composite of rubber tiles that show wear in some places. A smooth, stable connection from land to the dock would make it easier to access. (Oneida)



POOR

This low profile dock is sagging and does not protrude beyond the rocky bank into the water, making it extremely difficult to use. Launches like this should be evaluated for decommissioning. (Pittsford)



Adaptive Hand Launches

For the purpose of this study, adaptive hand launches are defined as any paddlecraft launch facility with design elements that enhance accessibility to the greatest extent possible. Features such as gangways with handrails, transition plates, transfer benches, edge protection, and launch ramps are common adaptive components.

Only seven adaptive hand launches were identified through field data collection. Four were in good condition, two were in fair condition, and one was in poor condition. Examples of each are shown in the images to the right.

GOOD

This launch had all components in good working condition and was free from debris or wear. (Pittsford)



FAIR

Some overgrowth can be seen at this adaptive launch but it was well maintained overall and had clear signage. (Baldwinsville)



POOR

This adaptive hand launch has overgrowth inhibiting use of the launch ramp. This launch was inventoried at Syracuse Inner Harbor and is technically outside the bounds of the NYS Canalway Water Trail.

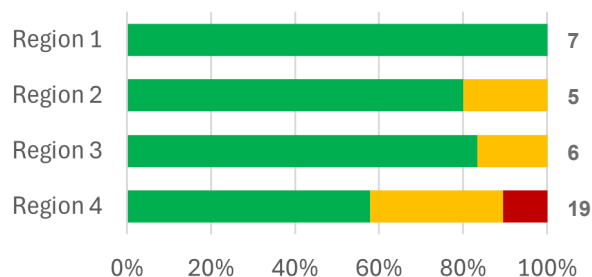


Marinas

For the purpose of this study, marinas are defined as any publicly or privately owned place where boats may dock for longer periods of time, such as several hours or overnight. They typically are accompanied by amenities such as picnic areas, power and water pedestals for boater use, sewage pumpouts, restrooms, and showers.

Figure 2.10 shows a summary of marina conditions for publicly-owned marinas only. These were in good condition overall. Region 4 (Tonawanda to Fairport) marinas were in worse condition than other regions, but also contained significantly more marinas than any other region.

FIGURE 2.10 Marina Condition



GOOD

This marina has a new, durable surface and has no grade separation between the Erie Canalway Trail and the dock. Power and water pedestals are available, along with showers and restrooms. (Fairport)



FAIR

This image shows the northern side of the marina in Lyons. There are signs of the wall deteriorating but it generally functions well, amenities are easy to connect to, and it remains a popular stop for boaters. (Lyons)



POOR

This image shows the southern side of the marina in Lyons, where the wall is significantly deteriorated, power pedestals were padlocked to prevent use, and a post-and-chain fence separates the water's edge from amenities in the adjacent park. (Lyons)

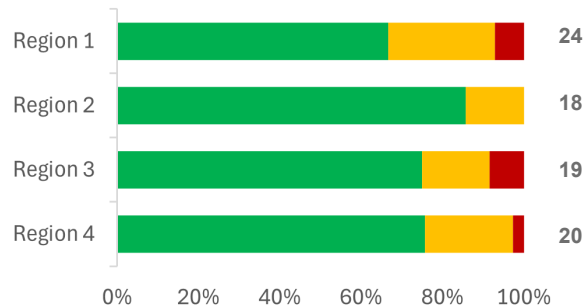


Bicycle Parking

Bicycle parking is in need of investment throughout the Erie Canalway Trail. Region 1 (Rome to Waterford) was in the worst condition overall, with over 30% in fair or poor condition. In many cases those in poor condition are older models that no longer reflect best practices, such as ensuring a bicycle can be affixed in two places and that the rack is bolted to a firm, stable surface such as pavement or concrete.

In some cases, newer, more functional bike racks may have been installed nearby and those that have reached the end of their useful life may be candidates for selective removal.

FIGURE 2.11 **Bicycle Parking Condition**



GOOD

This bike rack is a simple and effective model that allows bicycles to be secured at two points without falling down. The material is in good condition and the rack is secured to a concrete pad. (Middleport)



GOOD

This bike rack is well positioned in an activated area and shows no signs of rust or wear. The rack is secured and on a firm, stable surface that is easy to access with a bicycle. (Tonawanda)



POOR

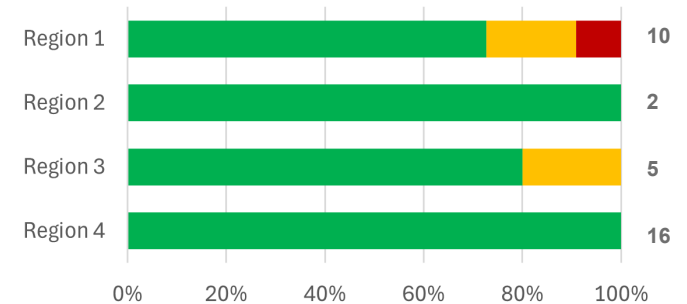
These outdated bike racks only secure the wheel and leave the rest of the bike vulnerable to theft. The surface is rusted, the rack is not secured to the ground, and it isn't intuitive to use. (Macedon)



Bicycle Repair Stations

Bicycle repair stations are standalone fixtures where cyclists can hang their bicycle and use the tethered tools to perform simple repairs, such as seat height adjustments. Some also include pumps for inflating tires. There were relatively few inventoried along the Erie Canalway Trail, but the majority were in good condition. This is not surprising given that they are a relatively new amenity. Due to their many working parts, it is important that they receive regular maintenance to prevent deterioration and remain usable. In Region 1, 10% were in poor condition, however given the low number inventoried this only equates to one station.

FIGURE 2.12 Bike Repair Station Condition



GOOD



This repair station is installed on a firm, stable surface in a visible location along the Erie Canalway Trail. The components are commercial quality and show no signs of wear. (Rochester)

FAIR



This repair station appears to have been custom built to serve this need, adding a retail air pump. Those designed for heavy public use are more durable, like the one in the image to the left. (Mohawk)

POOR



Several tools at this repair station appear to be rusted beyond use and the pump is broken. (Cohoes)

Condition Rating by Location

A series of heat maps were developed to better illustrate location-based patterns for condition rating, revealing concentrations of amenities in good, fair, and poor condition. County boundaries are shown on the maps as a reference when considering potential partnerships for investment to repair or replace amenities. Throughout the four regions there are large bands of amenities in good condition with few concentrations of amenities in poor condition.

Region 1 (Rome to Waterford)

Overall, amenities in this region are either in good or fair condition. The segment from Amsterdam to Waterford has a greater concentration of amenities in fair condition than good condition, as well as a small concentration of amenities in poor condition in the Niskayuna area.

Region 2 (Baldwinsville/Camillus to Rome)

There is a consistent concentration of amenities in good condition with only a few locations with fair condition amenities in the Oneida area.

Region 3 (Fairport to Baldwinsville/Camillus)

There is a concentration of amenities in fair and poor condition between Palmyra, Lyons, and Clyde. However, a noticeable concentration of amenities in good condition may be indicative of recent investment in this area. Investments in Lyons and Newark were specifically mentioned in stakeholder meetings.

The segment of the Erie Canalway Trail passing through Camillus shows a high concentration of amenities in fair condition.

Region 4 (North Tonawanda to Fairport)

The segment from Brockport to Rochester shows a large swath of amenities in fair condition, a high concentration of amenities in poor condition in the City of Rochester, and a low concentration of amenities in good condition overall. This points to a need for targeted investment along this segment. Conversely, the segment from North Tonawanda to Lockport shows a high concentration of amenities in good condition.

The area that includes Pittsford and Fairport tends to have equal amounts of good, fair, and poor condition amenities. Knowing that there is a high concentration of amenities in this area overall, there may be opportunity for selective removal of amenities in poor condition that may be redundant, such as benches and signs.



Areas in Need of Further Evaluation

For repair, replacement, or selective removal of amenities based on condition heat maps.

Brockport to Rochester

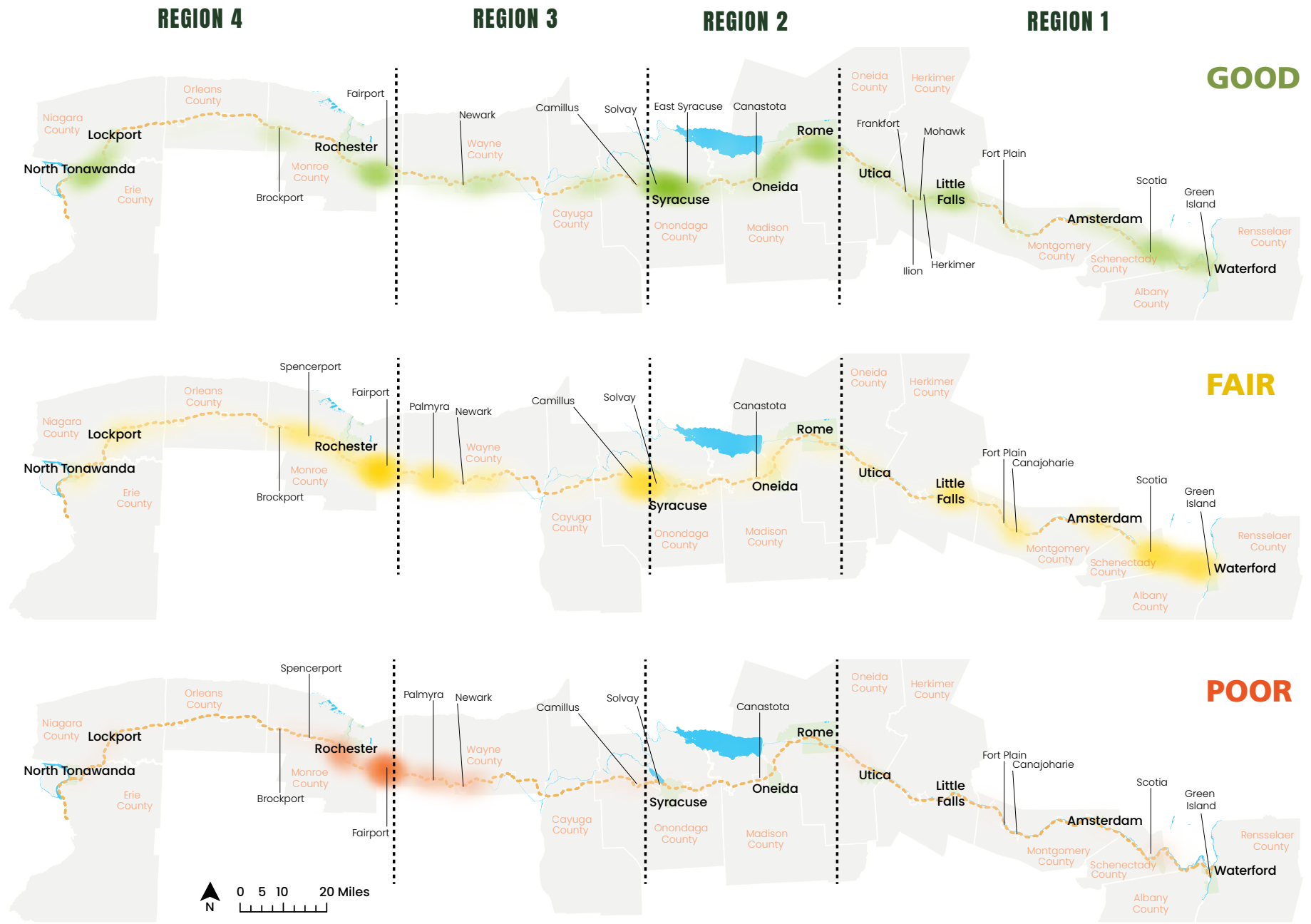
Pittsford to Fairport

Palmyra to Clyde

Camillus

Amsterdam to Waterford

MAP 2.1 Amenity Condition Heat Maps



Accessibility Assessment

As part of the existing conditions assessment, amenities were assessed for barriers to accessibility. This assessment was based on a high-level, visual evaluation of the amenity and its immediate surroundings. A complete accessibility assessment of ADA compliance requires exact measurements of elements such as vertical clearance, slope, and turning radius, as well as a review of the path of travel from an origin point to the amenity. This level of analysis was beyond the scope of this study. Therefore, accessibility findings are for informational purposes only and are meant to provide a starting point from which further investigation can be undertaken.

Accessibility Rating by Location

Similar to the condition assessment, a series of heat maps were developed to better illustrate location-based patterns for accessibility ratings, revealing concentrations of amenities that generally meet, partially meet, or do not meet accessibility standards based on a high-level visual assessment. County boundaries are shown on the maps as a reference when considering potential partnerships for investment to repair or replace amenities.

The series of accessibility rating heat maps tells a markedly different story from the condition rating maps, with a high concentration of amenities that do not meet accessibility standards throughout the trail. This result is not surprising, as

the Americans with Disabilities Act is relatively recent, having been signed into law in 1990. Amenities that meet ADA standards do not tend to happen by accident; rather, they are the result of intentional design to meet specific requirements and therefore require planned and coordinated investment. The areas where this targeted investment has taken place are apparent in the heat map for amenities that meet accessibility standards. This includes North Tonawanda, Lockport, Pittsford, Fairport, Syracuse, and Rome. The relatively recent investments in these locations may be considered as examples for other communities to adapt to their own contexts. The Needs Assessment section of this report describes opportunities to continually enhance accessibility along the trail systems.



Adaptive hand launch located in Fairport. Adaptive elements include a transition bench, overhead grab bars, clear instructions for use, and guardrails at the edge of the dock.

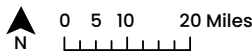
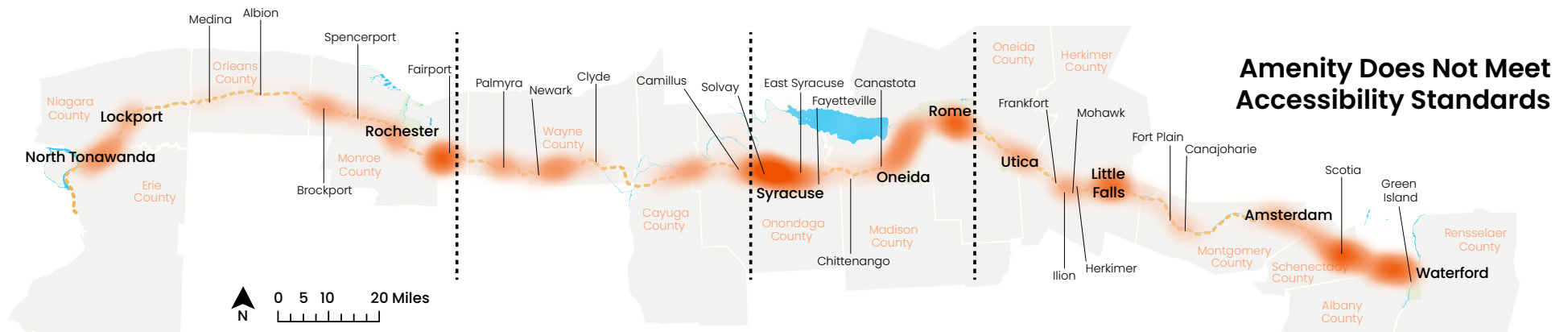
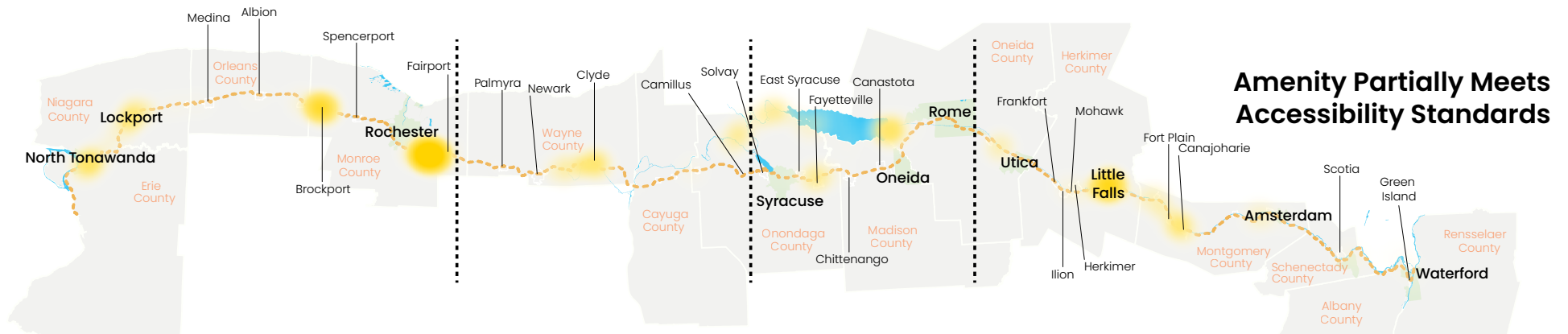
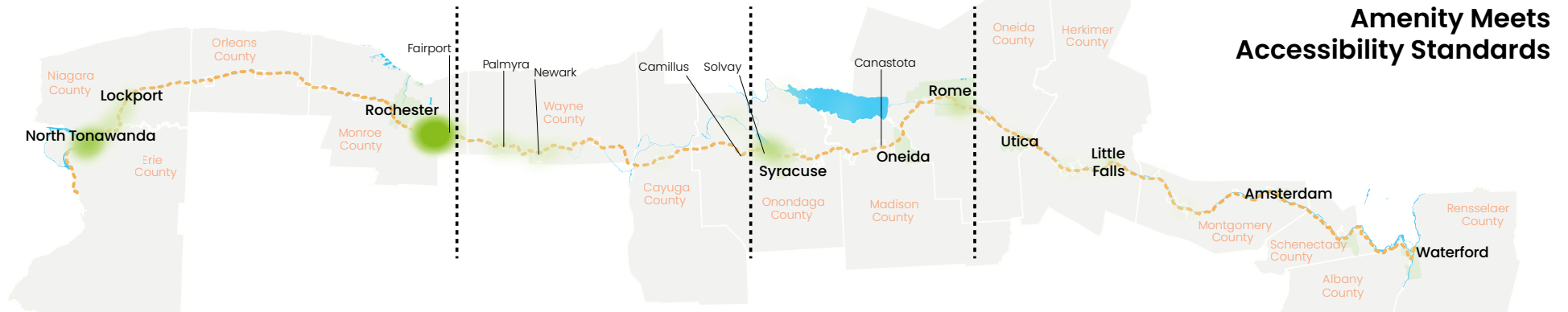
MAP 2.2 Amenity Accessibility Heat Maps

REGION 4

REGION 3

REGION 2

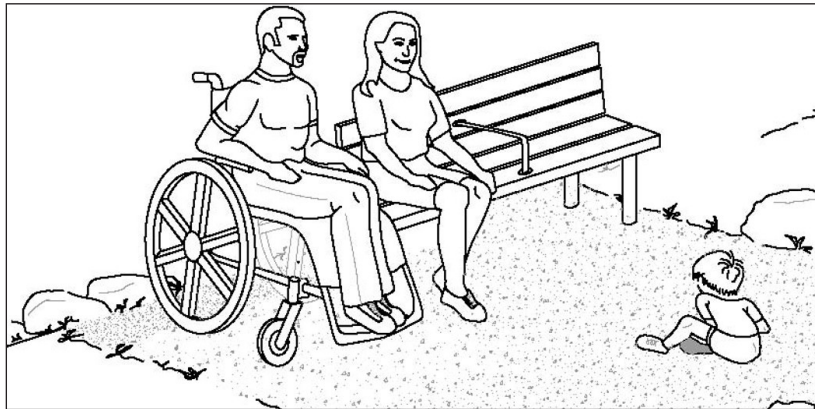
REGION 1



Accessibility Rating Examples

The following pages depict selected amenities inventoried to illustrate examples where intentional investment has been made to enhance accessibility as well as examples of common barriers to accessibility. This is intended to show opportunities where investments to existing amenities could contribute to a more inclusive experience for people of all abilities.

Benches



The diagram to the left illustrates several key features for an accessible bench. The bench is installed on a firm, stable surface that is connected to the path or trail. There is adequate space at one end so that those using a mobility device can position themselves alongside it. Lastly, an upright back and armrest provide additional support for users. (Image Credit: www.access-board.gov)

PARTIAL



Benches were often disconnected from the Erie Canalway Trail and paved walkways near the Erie Canal and NYS Canalway Water Trail, posing a challenge for those using a mobility device. A firm, stable connection to the walkway with adequate clearance on one side of the bench would enhance accessibility. (Baldwinsville)

PARTIAL



This bench is affixed to a larger concrete pad that connects to the Erie Canalway Trail. Connections like this not only provide a firm, stable surface for those with mobility impairments, but they also create a tactile cue for those with visual impairment. Accessibility for this bench would be further enhanced with a firm, stable area on one side of the bench.

Picnic Areas



MEETS STANDARDS

This table is installed on a firm, stable surface and has an extension so those in a wheelchair would have adequate clearance. (Cleveland)



PARTIAL

This picnic area is in close proximity to an adaptive launch and connected by a firm, stable surface, however the table does not have an extension for someone using a wheelchair. (Baldwinsville)



DOES NOT MEET STANDARDS

A wheelchair may have adequate clearance to roll up to the end of this table but it is not connected to the paved trail or grill by a firm, stable surface, creating a barrier for those using a mobility device. (Rochester)

Connections to Adaptive Launches

Considering connections to adaptive amenities is critical for creating an inclusive recreational experience. Though not completed as part of this study, designers and project managers should consider the total path of travel for a user, from the parking lot to the water.

MEETS STANDARDS



This adaptive launch has a plate connecting the paved walkway to the gangway to enhance access for those using a mobility device. (Baldwinsville)

PARTIAL



This adaptive launch connects to an uneven concrete/asphalt surface and has a steep incline, which may pose issues for those using a mobility device. (Halfmoon)

PARTIAL



This adaptive launch has a noticeable lip from the rocky path to the concrete landing, both of which would pose a challenge for access. (Palmyra)

Designing for Assistance

Though designing adaptive equipment to be used independently is critical, there are those for whom assistance may be required. Designers and project managers should consider how a second person might assist when designing adaptive launches.

MEETS STANDARDS



At this launch, someone can stand on the opposite side of the rollers to assist a person with a disability. (Pittsford)

PARTIAL



There is no landing on the far side of the rollers for someone to place themselves and assist a person with a disability to launch. (Palmyra)

This page intentionally left blank.



SECTION 3.

Best Practices

This section provides an overview of the best practices for amenity spacing, clustering, and accessibility, as informed by stakeholder interviews and guiding documents.

Best Practices

Through stakeholder interviews and additional research, a series of best practices were developed to guide analysis and recommendations. Best practices focus on how to group and concentrate amenities, amenity spacing, and promoting accessibility.

Hubs and Nodes

A central theme identified through stakeholder interviews was the importance of consistency and predictability in creating an exceptional recreational experience. Participants noted that users would feel more confident about embarking on trips of any length if there was a reasonable expectation that amenities would be consistently available at certain intervals. In order to meet this need, the project team established a hierarchy of amenity centers with the goal of providing the same types of amenities at each. This hierarchy includes two levels, hubs for major amenity centers and nodes for minor amenity centers.

Hubs and Nodes Defined

Figure 3.1 provides an overview of how hubs and nodes are defined. There are key commonalities between hubs and nodes, in that both are located near a center of activity, both have strong trail connections, and both have a noticeable concentration of amenities. The key differences between hubs and nodes relate to scale.

- Hubs tend to be located in major activity centers such as trailside cities, villages, or visitor centers, whereas nodes may be in minor activity centers such as community parks.
- Hubs tend to have a greater concentration of amenities that are targeted to a wider variety of users. For example, amenities geared towards beginners and casual users, such as rental equipment, should be prioritized at hubs as opposed to nodes.
- There are fewer hubs than nodes and they tend to be spaced between 20 and 50 miles apart, whereas nodes, which are more plentiful, may be anywhere from 2 to 20 miles apart.

These definitions and differences between hubs and nodes provide general guidelines, but there will be exceptions throughout the system.

Relationship to Empire State Trail

OPRHP released its *Empire State Trail Design Guide* in 2017. The guidelines include a hierarchy of amenity clusters at gateways (most amenities), trailheads (some amenities), and access points (fewest amenities) along the Erie Canalway Trail, but does not consider the Erie Canal or NYS Canalway Water Trail. While there is not a direct correlation between the ways hubs and nodes were defined or identified as compared to EST's gateways, trailheads, and access points, the hierarchy concept is similar and there is strong synergy between the designated locations on each trail. Approximately 60% of EST gateways and trailheads are also designated as hubs and nodes as shown in Section 4 of this study. Consideration should be given to maximizing amenity impact through coordinated investment between the Erie Canalway Trail and the Empire State Trail.

FIGURE 3.1. Hub and Node Attributes

The table below defines hubs and nodes by indicating their attributes and highlighting their commonalities and differences. These are generalized guidelines; there will always be exceptions to these definitions.

	A hub tends to have:	A node tends to have:
Proximity	Proximity to a major center of activity with off-trail amenities	Proximity to a minor center of activity
Connections	Connectivity to the NYS Canalway Water Trail, except in places where the trail diverges	Most have connectivity to the NYS Canalway Water Trail
Amenities	A higher concentration of amenities targeted to a range of user types (day trips and overnight trips, first-timers and experienced user, etc.)	A lesser concentration of amenities that may be geared more towards experienced users going out for a few hours or a single day

Amenities at Hubs and Nodes

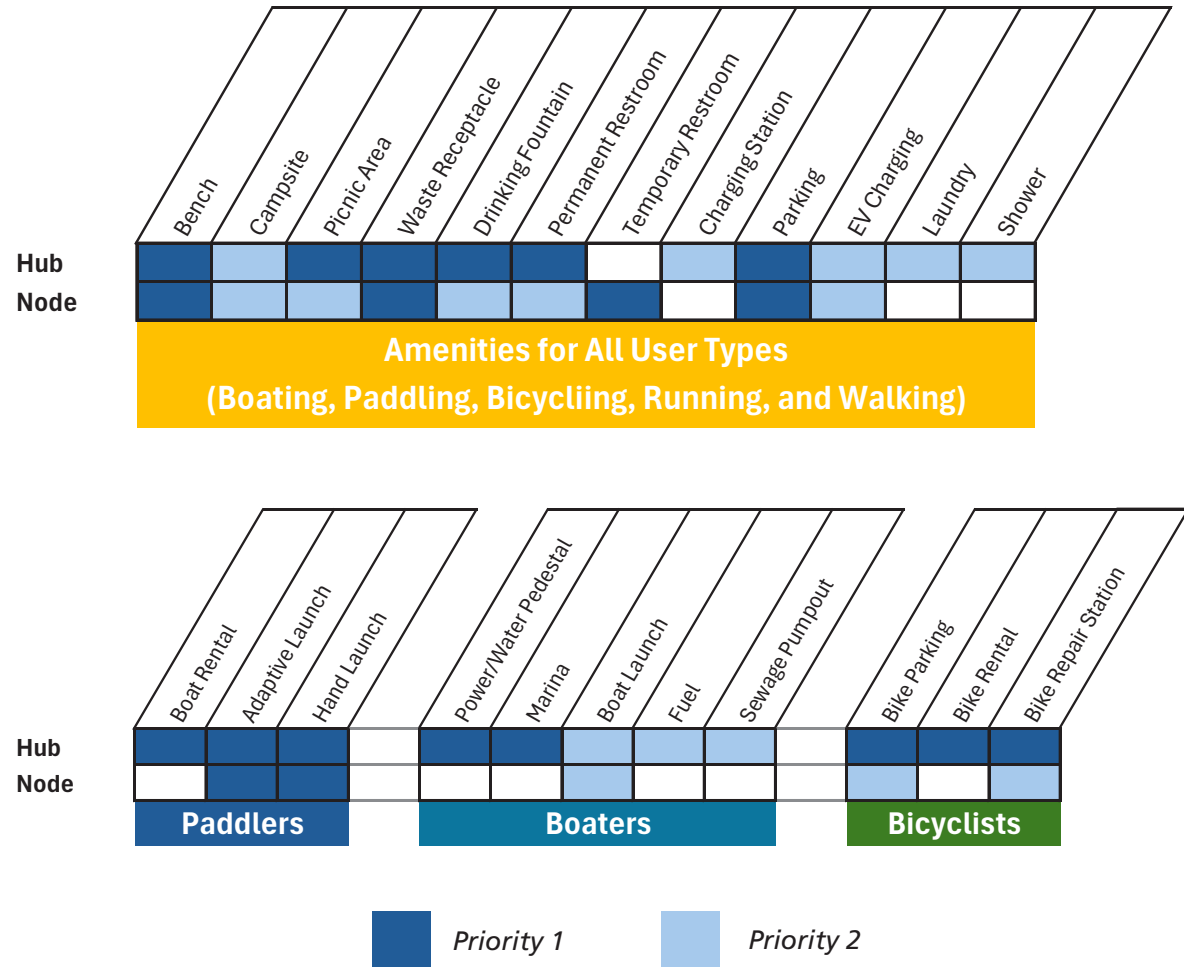
Figure 3.2 provides a closer look at the types of amenities that are recommended for inclusion at hubs and nodes.

Amenities are categorized by priority. Priority 1 amenities are those that are recommended to always include at hubs and nodes. Priority 2 amenities are those that would be helpful to include but are not as critical to the user experience.

For example, while it is recommended that permanent restrooms and drinking fountains are both included at hubs, drinking fountains are nice to have at nodes but not required. Similarly, a restroom of some sort should be available at nodes, but at these smaller scale locations, a temporary restroom is adequate. For boaters, boat launches intended for shorter trips are recommended at nodes, whereas marinas and power/water pedestals, which are intended for users who are staying for longer periods of time or overnight, are recommended at hubs where other overnight facilities such as showers and laundry facilities are recommended.

FIGURE 3.2. Hub and Node Amenities

The matrix below provides best practice recommendations for the amenities that should be consistently available at hubs and nodes.



Amenity Spacing Guidelines

Figure 3.3 details the recommended spacing between amenities. Stakeholders provided input on how often users need to use these amenities, which informed the “frequency” column. Research into how far users might travel within this frequency in turn informed the “spacing” column. These amenity spacing guidelines informed the gap analysis in the following section.

Amenity spacing guidelines are geared towards long-distance users such as bike packers, thru paddlers, and boaters. For these types of users, a sequence of connected amenities, such as a restroom available every 20-30 miles or a campsite available every 30-50 miles are critical to a positive experience.

Casual users or those who go out for short periods of time tend to start and end their trips at a single location, such as a hub or node, and would not rely as heavily on this type of spacing. However, the recommended spacing for benches is geared toward shorter-distance users. For amenities like bike rentals, bike repair stations, and boat rentals, regular spacing is less important than ensuring they are located at centers of activity such as hubs and nodes.

FIGURE 3.3. Amenity Spacing Guidelines

	Frequency	Spacing	Spacing Notes
SHARED AMENITIES			
Drinking Fountain	Every few hours	20-30 miles	In remote locations, greater spacing may be necessary due to lack of infrastructure.
Restroom	Every few hours	20-30 miles	In remote locations, portable toilets provide a useful alternative.
Showers	Every day	30-50 miles	
Laundry	Every few days	50-100 miles	
Campsite	Every day	30-50 miles bicycling 20 miles paddling	
Picnic Area	Every few hours	Locate at trail access, every 10-15 miles	
Bench	Varies	At trail access, every 1/2 mile within 2 miles of hubs and nodes	
BICYCLIST AMENITIES			
Bike Rental	One-time use	30-50 miles	Strive to be available at all hubs.
Bike Repair Station	Every few hours	Locate at trail access, every 10-15 miles	Strive to be available at all hubs, some nodes.
BOATER AMENITIES			
Marina	Every day	25 miles	
Power/Water Pedestals	Every day	25 miles	
Sewage Pump Out	Every few days	100 miles	
PADDLER AMENITIES			
Hand Launch	Every few hours	10-15 miles	Include adaptive launches at hubs. Paddlers typically travel 20 miles in a day but need breaks.
Boat Rental	One-time use	30-50 miles	Include at all hubs, some nodes. Locate with adaptive launches, roller docks, and bank launches.

Enhancing Accessibility

The Erie Canalway National Heritage Corridor and Canal Corporation are committed to making the Erie Canal, NYS Canalway Water Trail, and the Erie Canalway Trail one of the most accessible trail systems in the country. Recognizing that this requires targeted and intentional investment to enhance amenities, the following best practices will guide investment towards achieving this goal.

Leverage Existing Guides and Standards to Promote Accessibility

There are several standards and guidelines that can assist in designing for accessibility. The *2010 ADA Standards for Accessible Design* set minimum requirements for public buildings and structures such as restrooms, showers, and laundry facilities to be accessible to those with a disability. In addition, the *2024 Public Right-of-Way Accessibility Guidelines (PROWAG)* includes guidelines for shared use paths such as the Erie Canalway Trail. Any new investment of amenities is subject to these standards, but it is more challenging to encourage retrofitting of existing facilities to meet these standards.

Erie Canalway's *New York State Canal System Hand Launch Facility Design Guide* provides partner communities the information they need to design, permit, and install hand launches. Among other elements, the guide details the components that make a hand launch site accessible and provides examples of ways

to retrofit and enhance existing launches to improve accessibility.

Canal Corporation is currently developing a *Canal Standard Site Amenities* document with site furnishing standards that will be required on land owned by Canal Corporation. The standards include amenity designs that are either ADA compliant or can be modified in order to achieve compliance.

Recognizing that ADA compliance is a minimum standard, those installing new amenities should consider exceeding minimums and incorporating principles of inclusive design and universal design. Inclusive design focuses on reducing barriers based on culture, gender, age, and ability. Universal design aims to create a single solution or experience that is as accessible as possible without adaptation.

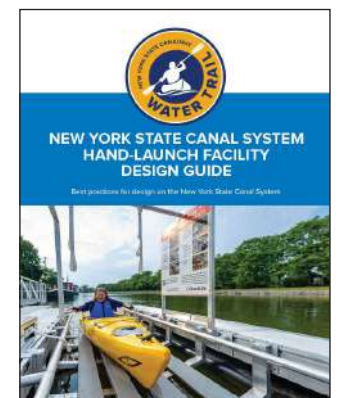
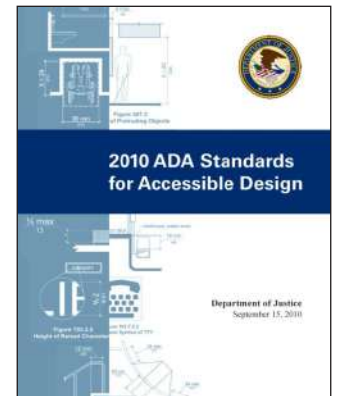
Make Accessibility a Focus of New Investment

Erie Canalway and Canal Corporation should proactively work with partners to encourage retrofits that achieve ADA compliance. Additional guidebooks similar to the *Hand Launch Facility Design Guide* for other types of amenities could help to achieve this.

Create Networks of Accessibility

In focus group discussions regarding accessibility, stakeholders stressed the importance of creating networks of accessible trail access points, so that users have the flexibility to embark on a longer distance trip

These guidelines and standards help to advance investment in accessible amenities and retrofit those that are already in place.



and stop at several points along the way rather than being tied to one starting point. This is especially relevant to paddlers who may rely on adaptive launches at either end of a trip. Being able to launch at one location and land at another location further down the NYS Canalway Water Trail is appealing to users and would allow them to explore more of the trail than would otherwise be possible.

In order to build these networks, investment should be focused in areas proximate to locations that already have accessible amenities. For example, in Region 4, there are adaptive launches in Fairport, Pittsford, and Brockport. Investment in adaptive launches in Rochester and Spencerport would help to build a network of accessible paddling amenities.

Create Strong Partnerships

In discussing accessibility, stakeholders recognized that it would be difficult to make the entire system accessible in the short term and noted the importance of strategically identifying locations where accessibility investments should be prioritized. Rather than installing accessible equipment and amenities opportunistically, they recommended identifying partner communities who would be committed to accessibility in the long term. This includes ensuring that adaptive equipment such as hand launches are maintained and in working order year after year. It would also require that the community continually enhance accessibility, perhaps by starting with a single accessible amenity such as a hand launch, and building on this achievement with additional accessible amenities and enhanced connections between the community and the trail.

Accessibility Investment in Fairport

Fairport is celebrated as a destination for accessible recreation. The journey to enhance accessibility started with private recreational equipment rental services who operate on the canal. They saw a need for those with mobility limitations to access and enjoy the canal and began offering adaptive paddling and cycling equipment rentals. Over the years, a strong demand was created for accessible amenities in this area, and private and non-profit entities continually advocated at the local and state level for inclusivity, noting that a key component to establishing the canal as a world-class destination is to make it as inclusive as possible for people of all abilities. The State and Village have put accessibility at the forefront of new investment, including docks, paddlecraft launches, and restrooms, and have collaborated with private and non-profit entities to seek input on design. This truly collective effort is a model for other communities seeking to enhance accessibility along the canal.



The docks are flush with the paved trail, which provides access to shops and services in the Village.



Fairport's adaptive launch is located adjacent to a paddlecraft rental company that offers adaptive equipment rentals.



ADA-compliant, single-occupancy public restrooms are available next to the canal.



Adult changing tables were identified as a key need in design of the restrooms.

Data Maintenance and Stewardship

The data collected for this project is the first comprehensive recreational amenities inventory undertaken for the Erie Canal, NYS Canalway Water Trail, and the Erie Canalway Trail. It reflects a static inventory and conditions assessment taken at a single point in time. In order to leverage the data to support planning and maintenance activities in the future, opportunities are identified to continually update the data.

Why Maintain the Data?

Going forward, the recreational amenities inventory will be used to identify gaps in the system and pinpoint locations where investment is needed. Understanding how many restrooms may need to be added and in which regions or communities have the greatest need will help with capital planning. Using GIS analysis, the data can be overlaid on land ownership data to understand which trail jurisdictions may have opportunities to invest in amenities. The data may also be used to evaluate grant applications and determine the greatest needs based on where there are gaps in amenities. Furthermore, the data can be used to identify and evaluate amenities in poor condition for repair, replacement, or removal.

Opportunities for Data Maintenance

Recognizing the many jurisdictions that own and maintain portions of the system throughout the state, keeping this data up to date presents challenges. Information sharing and creative use of local resources will be necessary to maintain the data. The following potential strategies were identified for further exploration.

- OPRHP maintains a program for local communities to report new investments along the Empire State Trail. OPRHP could increase engagement with communities to convey the importance of data maintenance and encourage them to submit regular updates when new amenities are installed.
- Increase reporting of new investments on Canal Corporation land by requiring those installing amenities to submit georeferenced points that could be incorporated into the amenities database.
- Leverage volunteerism and internships. In particular, Water Trail Stewards and Adopt-a-Trail Stewards could receive training to update the amenity inventory within their stewardship regions.



Water Trail Stewards are local resources who are familiar with NYS Canalway Water Trail access points and visit them regularly for maintenance. They are valuable resources that could be utilized for ongoing data maintenance.

Tools and Technology

There are several Esri GIS tools, both mobile and web-based, that can facilitate efficient data collection, maintenance, and disseminations going forward.



ArcGIS Online

ArcGIS Online (AGOL) is a web-based platform for collaborative mapping, analysis, and data management. The amenities database is currently stored in AGOL and can be reviewed, analyzed, and edited by anyone with access. GIS data, combined with tools available within AGOL, can be combined to develop published web maps so the data can be leveraged by a wider audience. Users can customize how they view the data to suit their needs.



Field Maps

Field Maps is a mobile application that can be used to update and maintain data. The app can be configured so that multiple users, such as volunteers or interns located throughout the state, can update fields such as amenity condition that will be reflected in the amenities database on AGOL.



Survey123

Survey123 is a mobile app designed for collecting new data. This app could be used by communities to submit georeferenced amenity data after new investments are made. Submissions can be reviewed, edited, and incorporated into the master database. Survey123 can also be leveraged for trail users or volunteers to report amenities in poor condition or other concerns that would be tied to a precise location. These reports can be reviewed and delegated to the appropriate representative based on the location.

