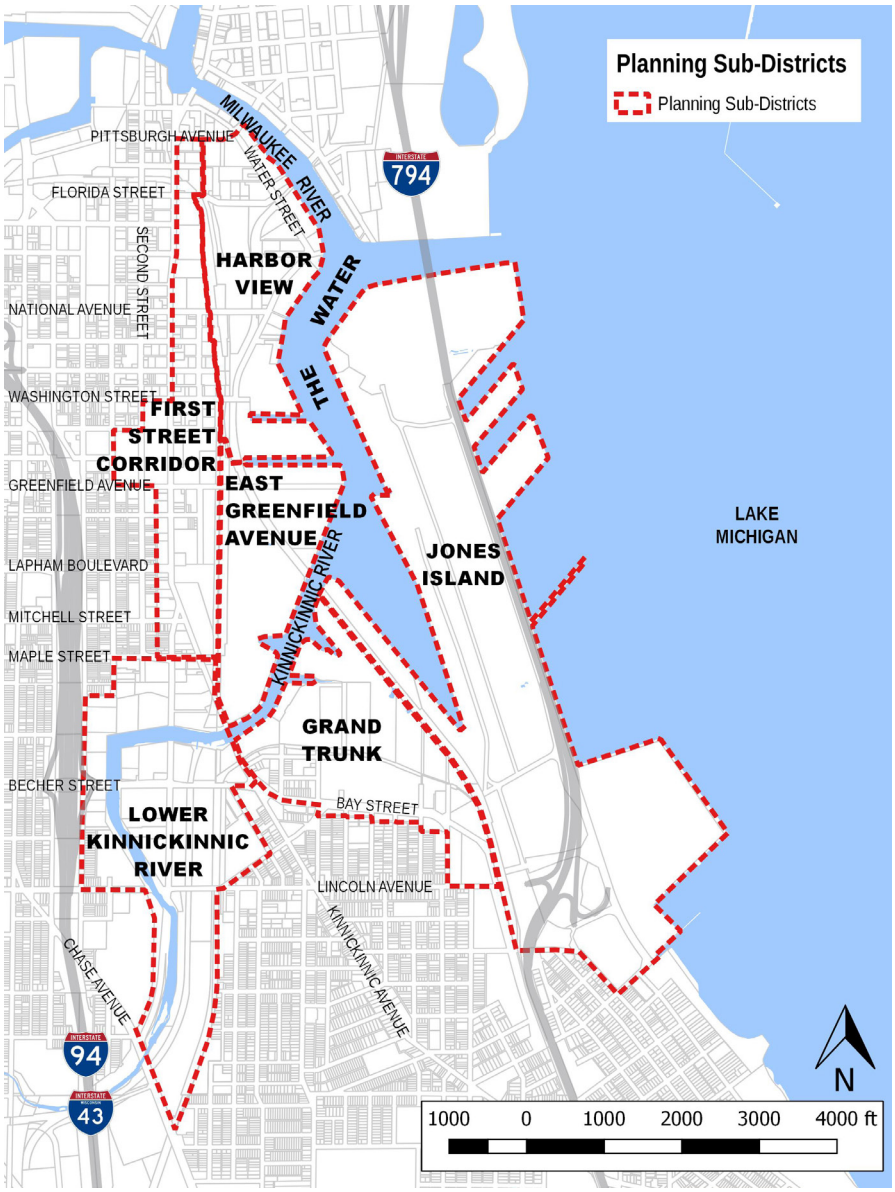
5 SUB-DISTRICT AND CORRIDOR RECOMMENDATIONS

This chapter provides more detailed place-based recommendations for the seven sub-districts that make up the Harbor District plan. The map below shows the district boundaries. The recommendations for the districts are based on the plan's analysis phase, public involvement, and the Harbor District Market Analysis.



Harbor View

The Harbor View sub-district is located along Milwaukee's inner harbor waterfront and bounded by Pittsburgh Street, the Milwaukee and Kinnickinnic Rivers, the Greenfield Slip, and the Canadian Pacific Railroad.

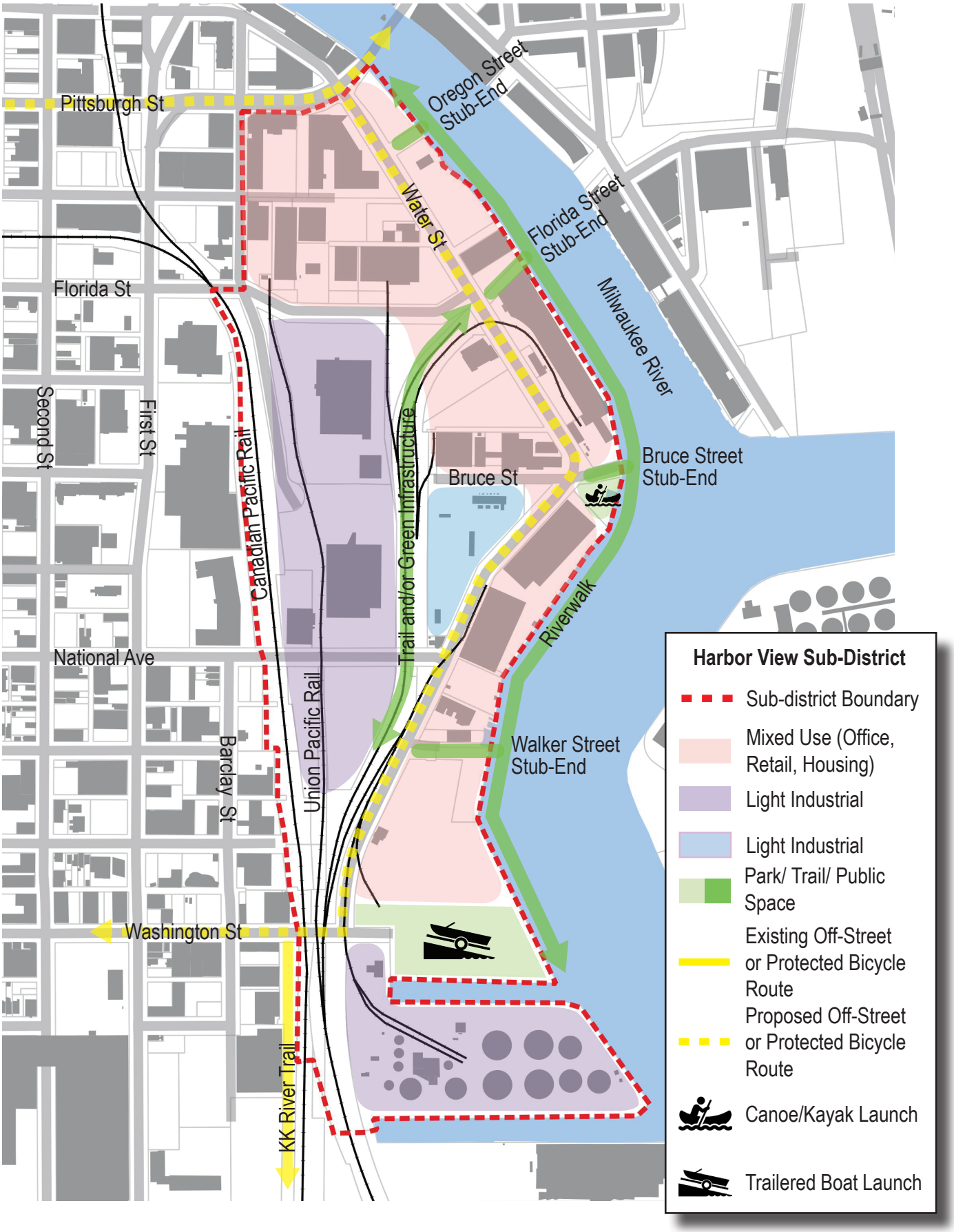
Existing Conditions

The Harbor View sub-district was historically an industrial and warehouse district that is experiencing a great deal of change. Many buildings that served as warehouse or manufacturing space have been converted to housing, offices, and retail with most of the development happening north of Florida Street.

The area South of Florida Street is a mix of industrial, warehouse, utilities and marine businesses. There are three rail spurs, two of them unused, that end in the sub-district near Florida Street. The only public water access point in the entire Harbor District is located along South Water Street at Bruce Street. The elevated Canadian Pacific railroad separates the sub-district from the Walker's Point neighborhood immediately to the west. There is a 2.5 acre vacant site owned by the Redevelopment Authority of the City of Milwaukee in the middle of the sub-district. Construction Resources Management's asphalt tank facility on South Water Street is the southern border of the sub-district.

District Vision

The Harbor View sub-district will continue its transformation from an industrial and warehousing area into a mixed-use live, work, and play neighborhood. The area will have a true mix of uses incorporating residential, office, retail, light industrial, and public spaces. The area will have a compact, urban form that is walkable and inviting. New access to the waterfront will provide residents and visitors an opportunity to visit and enjoy the place where the Milwaukee and Kinnickinnic Rivers meet and flow into Lake Michigan.


Pittsburgh St
Oregon Street Stub-End
Water St
Florida Street Stub-End
Milwaukee River
Florida St
Second St
First St
Canadian Pacific Rail
Trail and/or Green Infrastructure
Bruce St
Bruce Street Stub-End
Riverwalk
National Ave
Union Pacific Rail
Barclay St
Walker Street Stub-End
Washington St
KK River Trail
Harbor View Sub-District
Sub-district Boundary
Mixed Use (Office, Retail, Housing)
Light Industrial
Light Industrial
Park/ Trail/ Public Space
Existing Off-Street or Protected Bicycle Route
Proposed Off-Street or Protected Bicycle Route
Canoe/Kayak Launch
Trailered Boat Launch

Land Use

The Harbor View sub-district should continue transitioning to a mixed-use neighborhood that offers people places to live, work, and play. While older industrial buildings and warehouses are being converted to housing, offices, and retail, existing businesses will continue to operate and provide employment to city residents. A new public space network will be created that will provide improved access to the waterfront, new bicycle and pedestrian options to travel to and through the sub-district, and new green space for nearby residents.

1. Create a Riverwalk Overlay Zoning District aimed at creating continous public access to the waterfront, that includes all waterfront parcels in the East Greenfield Avenue sub-district. During the overlay zone adoption process, Harbor District Inc. and the City of Milwaukee will work with property owners to ensure that future Riverwalk plans and designs are responsive to property owner safety, security, and operational needs.

2. Encourage a mix of residential, office, retail, and light industrial to develop on parcels currently zoned as Industrial-Mixed.

3. Support proposed redevelopment of the former Wisconsin Cold Storage buildings and adjacent properties at 318 and 338 South Water Street and 343 and 344 East Florida Street as office or mixed-use developments consistent with the building form and design guidelines in this chapter.

4. Maintain existing industrial zoning for the parcels zoned as such between Florida Street and National Avenue, excluding 343 East Florida Street which serves as a buffer between the industrial uses to the west and future office/mixed use development to the east. Consider rezoning this parcel if needed to facilitate the development recommended in this section if it will not cause additional land use conflicts in this buffer area.

5. Explore opportunities to activate the Redevelopment Authority of the City of Milwaukee owned parcel at 317 East National Avenue in a manner that supports existing or future light industrial development or provides public green space or green infrastructure designed to complement neighboring uses.

6. When the property at 900 South Water Street transitions uses in the future, target the southern portion of the property to construct a public boat launch that serves both trailered boats and canoes/kayaks as described in chapter 6: Improved Waterfront Experience catalytic project. This space would provide more parking for vehicles and trailers, a safer launch point protected from lake waves and wind, and act as a buffer between industrial uses to the south and commercial and residential uses to the north.

Building Forms

Land use recommendations for the Harbor View sub-district are to continue the high density mixed-use development pattern that has predominated the area in recent years. Therefore, recommendations for future building forms are focused on higher density development, a broad mix of uses, and an engaging and pedestrian friendly streetscape.

7. Encourage high density multi-story buildings that take advantage of views to the water and the urban environment.

8. New developments should complement the existing physical form of the urban environment and have minimal building setbacks.

9. As the industrial users between Florida Street and National Avenue change or expand their facilities in the future, street facing portions of their buildings should include windows, architectural details, and entrances/exits that provide a more engaging and pedestrian friendly streetscape.

10. Newly constructed buildings on waterfront properties should endeavor to allow for points of access to the water at least every 300 feet.

11. The We Energies sub-station located along South Water Street south of Bruce Street should be screened in an aesthetically pleasing manner.

New apartments on Oregon Street next to an existing industrial building.

Transportation

Harbor View's location and industrial past have left behind a legacy of various transportation modes including docks, rails, streets, and sidewalks. In some cases all of these modes of transportation are layered on top of each other in the same place. Creating a transportation network that helps people travel to and through the Harbor View sub-district in a safe and efficient manner is important to moving goods and people and important to achieving many of the other goals listed in this plan.

12. Remove the three Union Pacific rail spurs north of Washington Street and, where rail right-of-way does not already belong to a private owner, convert to shared-use public paths with stormwater best management practices and access to public streets where appropriate.

13. Create an on-street protected bicycle lane along South Water Street from Washington Street to Pittsburgh Street. This bicycle lane will serve as the northern portion of the Kinnickinnic River Trail as described in the Access and Mobility Catalytic Project.

14. Create an on-street protected bicycle lane along Pittsburgh Street that will serve as a portion of the Hank Aaron State Trail as described in the Access and Mobility Catalytic Project.

15. Remove any unused railroad tracks located in the right-of-way on South Water and Florida Streets to create a safer bicycling route.

Union Pacific Rail spurs ending in the Harbor View sub-district.

Unused rail spur near Florida Street.

Rendering showing Union Pacific rail spurs converted to public trails and green infrastructure with additional infill development. Rendering by UWM Community Design Solutions.

Public Space

As the Harbor View sub-district is densely developed on the northern end, and likely to become more dense as development continues, opportunities to create green spaces and other public spaces are a high priority. This is especially true along the waterfront where the only current public space and access to the water is at the Milwaukee County Boat Launch on South Water Street. However, despite the dense development patterns and industrial character of much of the sub-district, there are numerous opportunities to create new green space as described below.

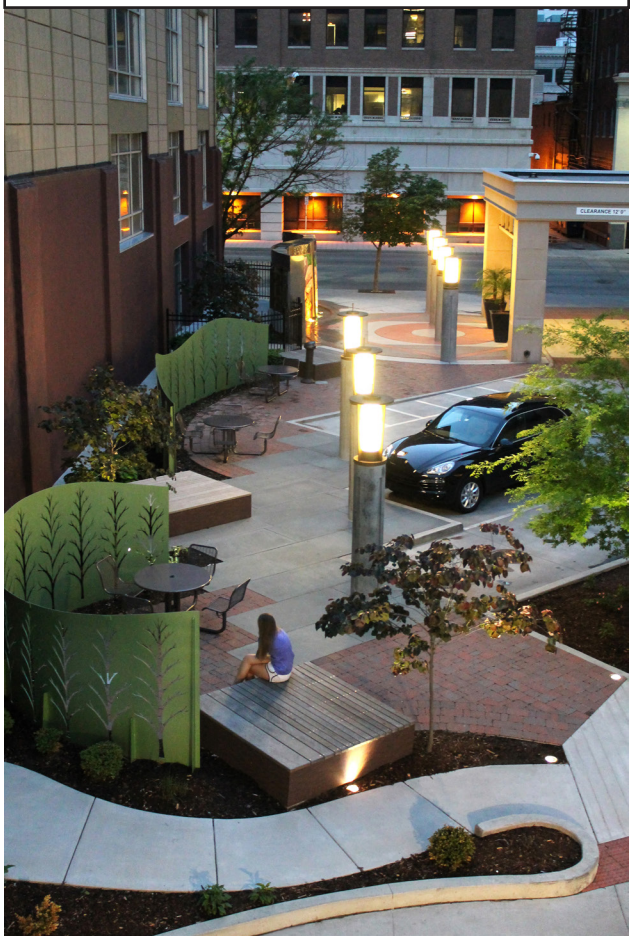
16. At the four waterfront stub-end streets (Oregon, Florida, Bruce, and Walker Streets), design plaza or park-like connections between South Water Street and the Riverwalk that include public space amenities such as landscaping, planters, benches, trees, public art, and wayfinding signage while allowing for vehicular access to adjacent properties if necessary. The Bruce Street stub-end street should be incorporated into larger designs for improving the Milwaukee County Boat Launch.

17. Improve the Milwaukee County Boat Launch and adjacent Bruce Street stub-end to better serve as a waterfront park space. The space should be redesigned to include more natural features (trees, landscaping, natural vegetation) and more public amenities (benches, lighting, public art, wayfinding signage). The boat ramp should be redesigned to better serve canoes and kayaks.

18. When the property at 900 South Water Street transitions to a new use, consider a new boat launch at this location. The new boat launch would offer an improved experience for boaters over the current Bruce Street launch, and serve as a buffer between the industrial uses to the south and new mixed-use development taking place to the north.

19. Explore opportunities to reuse the railroad swing bridge in the Milwaukee River near the end of Florida Street as a public amenity or park.

Pocket park approximately the size and shape of the stub-end streets.



Unused rairoad swing bridge in the Milwaukee River near Florida Street. photo by Eddee Daniel

Stormwater

As much of the Harbor View sub-district is already densely developed, opportunities for green infrastructure to manage stormwater are limited. Future development, whether private projects or public spaces and infrastructure, should think creatively about how to best manage stormwater in a dense urban environment. Parcels that lie within the combined sewer area should identify ways to divert stormwater away from the combined sewer system. Parcels that lie outside the combined sewer area drain directly to the rivers, and are encouraged to capture, filter, and clean stormwater prior to discharging to neighboring waterways.

20. Capture 1.4 millions gallons of stormwater in the Harbor View Sub-District through green infrastructure and other stormwater management best practices to protect water quality.

21. As improvements are made to the Milwaukee County Boat Launch and the four waterfront stub-end streets (Oregon, Florida, Bruce, and Walker Streets), include stormwater features and green infrastructure.

    a. Use these public improvements to provide education about stormwater and water quality.

22. A new public boat launch at the southern end of the Harbor View district should include green infrastructure to capture runoff from the parking lot while helping to create a more inviting public space along the waterfront.

23. When the north side of Florida Street between Barclay and Water Streets is redeveloped, work with adjacent property owners to maximize the capture of stormwater runoff.

Habitat

Due to its location at the confluence of the river system and Lake Michigan, special consideration needs to be given to creating aquatic habitat and improving habitat connectivity along the shoreline of the Harbor View sub-district.

24. Incorporate terrestrial and aquatic habitat into Riverwalk.

25. Enhance both active and abandoned rail corridors with native plantings to provide habitat.

26. Add at least one aquatic habitat location/feature to each waterfront property in the Harbor View area. Habitat features include Habitat Hotels, floating islands, fish shelves, and other innovative habitat installations that provide space for fish to find food or cover.

27. Should the RACM owned vacant parcel at 317 East National Avenue be developed as a public space, incorporate improved habitat for pollinators, birds, and a native plant community appropriate for the urban location which honors the historic grasslands of Southeastern Wisconsin.

Public Art

The Harbor View sub-district is where the Walker's Point neighborhood comes closest to the waterfront and the industrial port, providing an opportunity for public art to highlight how those two different identities interact.

28. The redesign of the Milwaukee County Boat Launch should incorporate public art to create an inviting and interesting space along the waterfront. Explore opportunities to create interactive and/or educational art elements that engage visitors in experiencing and learning about the Harbor District.

29. Properties with outdoor facilities, such as the We Energies substation, should use public art for creative screening or to highlight the operations or processes taking place within the property.

30. The former grain silos on South Water Street provide opportunities for both short and long term public art installations, depending on the future of the silos.

Mural on grain silos in Australia by Guido Van Helten.

First Street Corridor

The First Street Corridor is the western boundary of the Harbor District and includes portions of the Walker's Point and Clock Tower Acres neighborhoods. The corridor is bounded by Pittsburgh Street, the Canadian Pacific railroad, West Maple Street, and First Street.

Existing Conditions

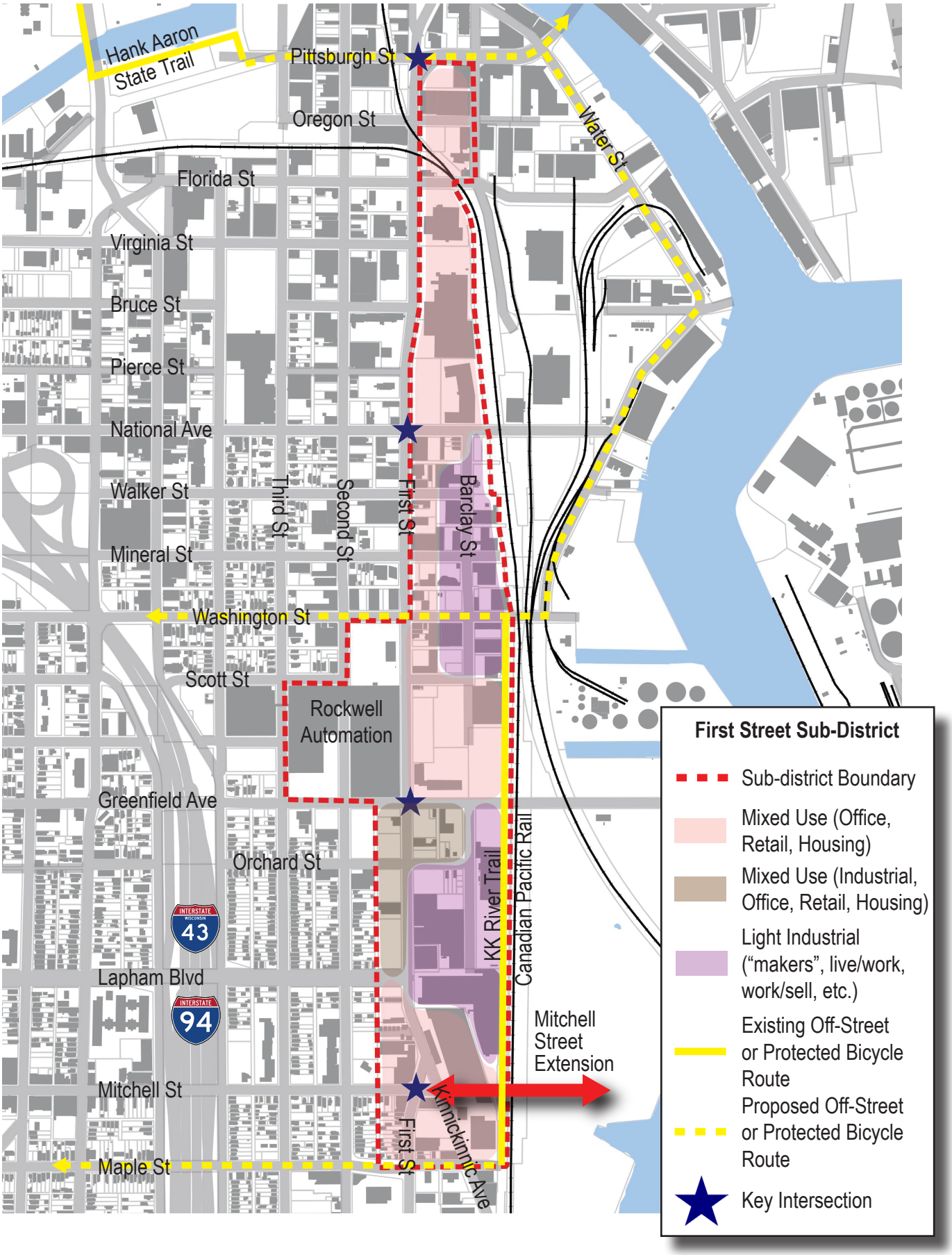
The First Street Corridor is the most urbanized and developed portion of the Harbor District and includes areas of the Walker's Point and Clock Tower Acres neighborhoods. Like much of the Harbor District, the corridor is an area in transition with new multi-family housing and office developments completed or planned in recent years. The corridor serves as a major transportation connection between the Bay View neighborhood, the Near South Side, and Downtown Milwaukee.

The area is truly mixed-use with a variety of building types and uses ranging from industrial to commercial to residential. Along South First Street there are many low-rise industrial and/or warehouse buildings with those north of National Avenue set back from the street with large parking lots. There are a number of employers along the street with office and small manufacturing companies located north of National Avenue, Rockwell Automation and its 2,800 employees between Greenfield Avenue and Washington Street, and some heavier industrial companies located south of Greenfield Avenue.

South Barclay Street is a relatively quiet street between South First Street and the Canadian Pacific raised railroad line. Barclay Street has a number of industrial businesses, metal recycling businesses, and several vacant buildings. Freshwater Plaza was constructed in 2016 straddling Barclay Street between Scott Street and Greenfield Avenue and includes the area's first grocery store, new multi-family housing, and retail.

District Vision

The South First Street Corridor will serve as a welcoming entryway to the Harbor District with clear entry points to access new development and the waterfront to the east. The area will continue to develop as a mixed-use urban neighborhood that provides spaces for people to live, work, and play. Residents, employees, and visitors will be able to travel easily to and through the corridor regardless of their mode of transportation.


Hank Aaron State Trail
Pittsburgh St
Oregon St
Florida St
Virginia St
Bruce St
Pierce St
National Ave
Walker St
Mineral St
Washington St
Scott St
Greenfield Ave
Orchard St
Lapham Blvd
Mitchell St
Maple St
Water St
Third St
Second St
First St
Barclay St
Rockwell Automation
KK River Trail
Canadian Pacific Rail
Mitchell Street Extension
Kinnickinnic Ave
First St
INTERSTATE 43
INTERSTATE 94
First Street Sub-District
Sub-district Boundary
Mixed Use (Office, Retail, Housing)
Mixed Use (Industrial, Office, Retail, Housing)
Light Industrial ("makers", live/work, work/sell, etc.)
Existing Off-Street or Protected Bicycle Route
Proposed Off-Street or Protected Bicycle Route
Key Intersection

Land Use

The First Street Corridor will continue as a mixed-use district with spaces for housing, retail, offices, and light industry. First and Second Streets north of Greenfield Avenue will continue to see new development and adaptive reuse of older buildings that fit the goals of the Walker's Point Strategic Plan. Barclay Street between National Avenue and Scott Street will serve as an employment and innovation corridor. First and Barclay Streets south of Greenfield Avenue will include areas for housing, retail, offices, and light industry.

1. Continue development of First Street north of Greenfield Avenue as a mixed-use corridor that includes housing, retail, and offices. Changes to the street and built environment should encourage the transition from an auto-oriented corridor to a more pedestrian friendly walkable urban environment.

2. Emphasize the major transportation intersection and gateway to the Harbor District at South First Street and National Avenue by bringing buildings up to the corner and including significant design elements on the corner of the buildings. Buildings should reinforce the pedestrian and transit focused character of this intersection and corridor.

3. Prioritize the currently vacant site at the northeast corner of South First Street and National Avenue for multi-story transit oriented development.

4. Encourage destination commercial developments and civic uses along South First Street that support smaller commercial uses by bringing customers to the area.

5. Complete the planned Freshwater Plaza development at First Street and Greenfield Avenue as called for in General Planned Development zoning to serve as a gateway into the East Greenfield Avenue sub-district to the east.

6. With the exception of the Freshwater Plaza development between Greenfield Avenue and Scott Street, maintain Barclay Street from National Avenue to Lapham Boulevard as a light industrial and "maker" corridor, providing employment and innovation opportunities with flexible building forms that can adapt to a variety of businesses. Housing should be discouraged, except in a live/work arrangement, to preserve the employment and innovation focus of the corridor. Retail should also be discouraged, unless as part of a make/sell arrangement or other use complementary to the light industrial "maker corridor."

7. Maintain First Street between Greenfield Avenue and Lapham Boulevard for light industrial use, complementing the industrial users already located in this area.

8. South of Lapham Boulevard, develop First Street as a mix of uses that could include housing, retail, commercial, or light industrial focused around the Mitchell Street, First Street, and Kinnickinnic Avenue intersection. As a major gateway to the Harbor District, buildings at this intersection should be built to the corner and include significant design elements that reinforce the pedestrian and transit focused character of this intersection and corridor.

9. Explore the potential to repurpose the Milwaukee County Transit System KK Garage located at 1710 South Kinnickinnic Avenue to facilitate the extension of Mitchell Street east into the East Greenfield Avenue sub-district, as described in the transportation recommendations below and in chapter 6: Access and Connectivity catalytic project.

Building Forms

The First Street Corridor has a variety of building styles and types, some which lend themselves to adaptive reuse and others that are not as flexible. While Second Street has seen recent development projects fit into the existing walkable urban character of Walker's Point, First Street largely remains an auto-oriented corridor with large parking lots and deep building setbacks. The corridor south of Greenfield Avenue has a number of underused parking lots and buildings with blank walls along First Street. The entire corridor should be developed into a vibrant, mixed-use, pedestrian-friendly area that connects the Third Ward to the Bay View neighborhood.

10. Due to the density of existing transit service and the potential for expanded transit in the future, First Street north of Greenfield Avenue should be redeveloped into a pedestrian and transit friendly street. Pedestrian activity and comfort should be the highest priority when considering future development.

    a. Future developments should have their main facades and entrances facing the street to create an active street front.

    b. Vehicular parking should be minimized and, when necessary, accommodated in the rear or hidden from view.

    c. Other transit-oriented development policies such as increased density, resident serving businesses, and affordable housing should be pursued.

11. Barclay Street between National Avenue and Scott Street should aim to create a pedestrian friendly streetscape.

    a. Buildings should have minimum setbacks and building entrances located along the street.

    b. Infill new construction buildings should fit the context of surrounding historic buildings.

    c. Parking should be placed in the rear or hidden from view.

    d. Any permitted outdoor storage and staging yards should be attractively screened and/or landscaped.

12. While the area along First and Barclay Streets between Greenfield Avenue and Lapham Boulevard will be preserved for light industrial activities, future development should aim to create a pedestrian friendly streetscape and building face.

    a. Large blank walls should not be constructed along First Street.

    b. Buildings should have minimum setbacks.

    c. Parking and outdoor storage yards should be located away from the street and landscaped.

13. First Street south of Lapham Boulevard should be developed as a pedestrian and transit friendly corridor, with special focus on the intersection of First Street, Mitchell Street, and Kinnickinnic Avenue. Buildings should have minimum setbacks with active ground floor uses and no surface parking.

14. Buildings located at the gateway intersections of two primary streets (e.g. First St., National Ave., Greenfield Ave., Lapham Blvd., Mitchell St., Water St.) or the visual termination points of primary streets at the water should contain special architectural features at these corners or termination points.

Transportation

First and Second Streets are a major transportation corridor between Bay View, the Near South Side, and Downtown Milwaukee carrying personal vehicles, bicycles, buses, trucks, trains, and pedestrians. First Street is a state highway that carries over 16,000 vehicles per day and intersects with another state highway, National Avenue, and several other major arterial streets in the area. Eight bus lines converge within the corridor, funneling riders from the Near South Side and beyond towards Downtown Milwaukee. South Second Street and the Kinnickinnic River Trail are major bicycle routes through the corridor. The eastern boundary of the corridor is the elevated Canadian Pacific Railroad line. Many of the businesses in the area drive substantial truck traffic through the corridor to interstate on-ramps at Lapham Boulevard or Mineral Street.

While there is a density of existing transportation networks that converge within the corridor, the potential remains for expanded transportation options in the near future. The City of Milwaukee is currently conducting a study evaluating the potential for expanding the Milwaukee Streetcar into this corridor. Should future transit investments reach into the First Street corridor, it will be important to consider those impacts on existing transportation networks in the Harbor District.

15. Redesign First Street to better serve all users (personal vehicles, buses, trucks, bicycles, and pedestrians) and serve as a gateway to the Harbor District. The streetscape should be made more pedestrian, bicycle, and transit friendly by incorporating complete streets principles.

16. Build a designated on-street bicycle route along Washington Street, as recommended in the Walker Square Strategic Action Plan, that will connect with the Kinnickinnic River Trail near Barclay Street. For more details see chapter 6: Access and Connectivity catalytic project.

17. Create a designated on-street bicycle route along Maple Street that will connect with the Kinnickinnic River Trail at South Kinnickinnic Avenue as described in chapter 6: Access and Connectivity catalytic project.

18. Extend Mitchell Street east under the Canadian Pacific Railroad line into the East Greenfield Avenue sub-district. The new street connection must be tall enough for full-size semi trucks and must include space for bicycle and pedestrian connections.

Public Space

The First Street corridor has no parks or public spaces aside from the Kinnickinnic River Trail at its eastern boundary. As the area is largely developed, opportunities for parks and/or public space will be difficult to find. The focus for the First Street corridor should be on making the public realm along streets a more comfortable and pedestrian-friendly space and on connecting residents and visitors to new parks and public spaces to be developed along the waterfront to the east and south of the corridor.

19. As new developments take place, identify opportunities to create green and/or public spaces within private developments. The water feature and plaza within the Freshwater Plaza development at First Street and Greenfield Avenue serves as a good example of a public-private partnership that resulted in a high quality green (and blue) space.

20. When First Street is redesigned and reconstructed, street trees should be added to the streetscape along with bioswales and other porous streetscape strategies wherever feasible.

Stormwater

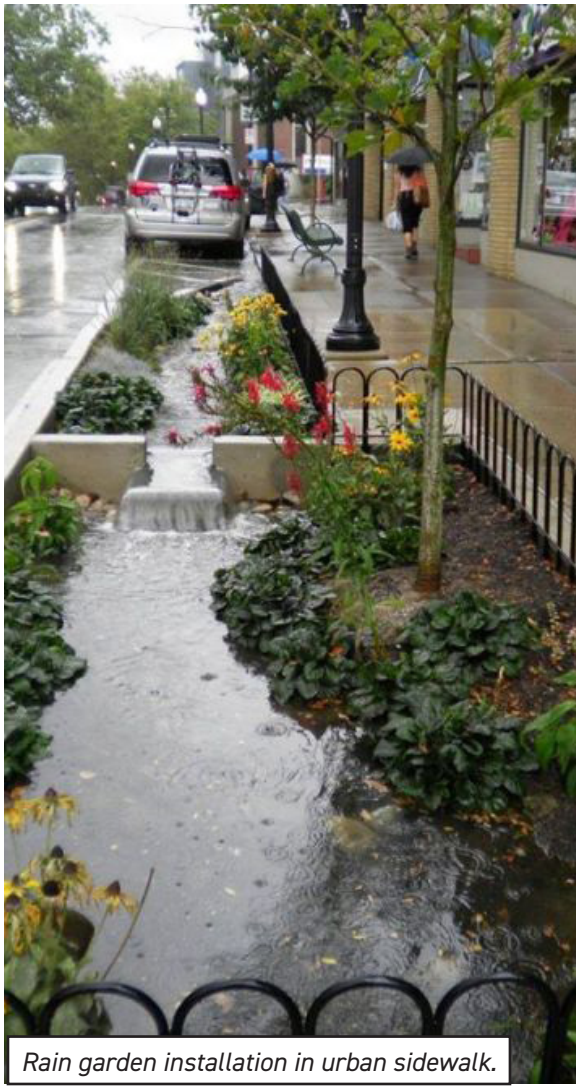
Due to its dense, urban character, the First Street corridor poses challenges for implementing stormwater management and green infrastructure. However, the First Street corridor lies almost entirely in the Combined Sewer System. Capturing water quantity is therefore very important in this area to help achieve MMSD's goals. Street trees and complementary best management practices are one of the best solutions in this highly-developed district. Green infrastructure retrofits and pilot projects on private property will also be encouraged, especially at parking lots.

21. Capture 2.1 million gallons of stormwater through green infrastructure and other stormwater best management practices to reduce impacts on the Combined Sewer System.

22. Promote the creation of a complete streets network along First Street and all east-west streets, with street trees and other green infrastructure features.

23. Conduct next-level stormwater planning to determine if additional stormwater projects are feasible within the corridor.

24. Encourage new developments and redevelopments to include on-site stormwater management practices, such as the installations at Freshwater Plaza.



Rain garden installation in urban sidewalk.

Habitat

Due to the dense, urban character of this area, habitat creation is difficult and often inappropriate.

25. Add street trees to improve the urban canopy.

26. Give preference to native plants in landscaping and stormwater interventions.

Public Art

As most people will visit the Harbor District by passing through the First Street Corridor, public art will play a vital role in developing a sense of identify for the Harbor District and creating interesting, educational, and identifiable gateways into the District. Strategically deployed public art installations can help stitch the Walker's Point and Harbor District neighborhoods together and help people understand the history of the area and the change to come.

27. Wayfinding art projects should be incorporated at or near intersections between South First Street and Florida Street, Washington Street, National Avenue, Greenfield Avenue, and any future additional entry points into the Harbor District. These gateway art projects should contribute to the identity of the Harbor District and signal to visitors that they are entering a unique neighborhood with connections to the water.

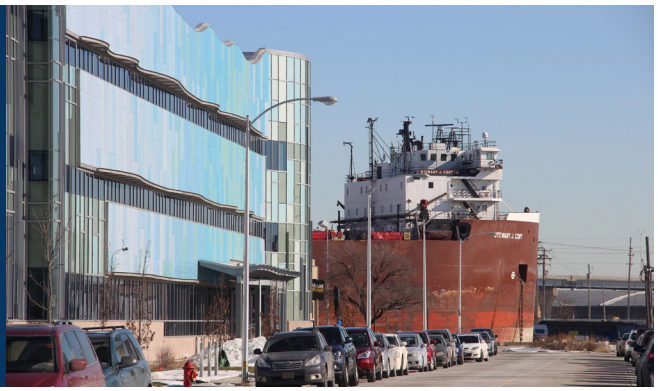
28. As the many railroad bridges in the First Street Corridor are maintained, upgraded, or rebuilt, look for opportunities to enliven them with art.

29. Add art to the large retaining wall on South Kinnickinnic Avenue between Maple Street and the River.

30. Art can be used to soften the impact of Rockwell Automation's facilities along South First Street and improve the pedestrian experience. Art could highlight the company's long history or educate the public on the products and services the company provides.

Gateway mural on railroad bridge over East Greenfield Avenue

East Greenfield Avenue



The East Greenfield Avenue sub-district is located along the inner harbor waterfront and bounded by the Greenfield Slip, the Kinnickinnic River, and the Canadian Pacific Railroad. Further details on the recommendations below can be found in chapter 6: 311 and 401 East Greenfield Avenue: Water-Centric Placemaking catalytic project.

Existing Conditions

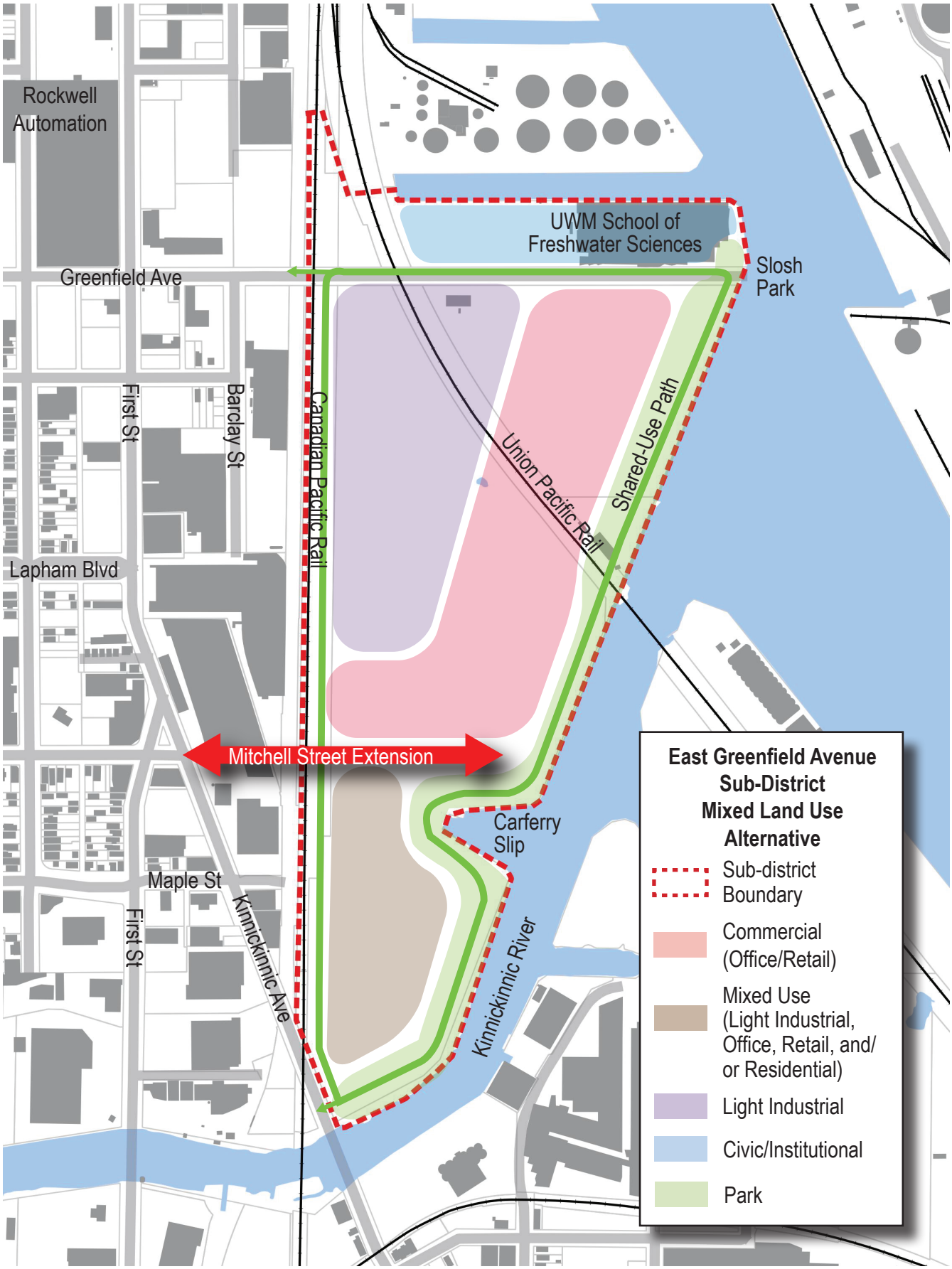
The East Greenfield Avenue sub-district contains only six parcels, all of which historically were used for heavy industry or transportation. The largest parcel, 311 East Greenfield Avenue was formerly the home of the Solvay Coke & Gas Co. among other industrial operations, but has been vacant since the 1980s. The property has extensive contamination and the property owner, We Energies, has recently begun an extensive cleanup process.

401 East Greenfield Avenue is owned by Port Milwaukee and for many years prior to 2015 was the storage site for coal headed towards the Menomonee Valley Power Plant. The property is currently unused with Port Milwaukee looking for a tenant.

600 East Greenfield Avenue was a tile factory built in the early 1960s, but has served as the home of the Great Lakes Water Institute since the early 1970s. In 2013 a $53 million addition to the building was constructed to house the newly created University of Wisconsin-Milwaukee School of Freshwater Sciences.

District Vision

The East Greenfield Avenue sub-district will be a new employment and recreation center that provides a variety of job types. Office, lab, research, and light industrial employers will develop modern and sustainable buildings that embrace the urban waterfront location and capitalize on existing assets such as the UWM School of Freshwater Sciences and Rockwell Automation. New waterfront public spaces will draw residents from nearby neighborhoods and visitors from the Greater Milwaukee area.


Rockwell Automation
UWM School of Freshwater Sciences
Greenfield Ave
Slosh Park
First St
Barclay St
Canadian Pacific Rail
Union Pacific Rail
Shared-Use Path
Lapham Blvd
Mitchell Street Extension
Carferry Slip
Maple St
First St
Kinnickinnic Ave
Kinnickinnic River
East Greenfield Avenue Sub-District Mixed Land Use Alternative
Sub-district Boundary
Commercial (Office/Retail)
Mixed Use (Light Industrial, Office, Retail, and/or Residential)
Light Industrial
Civic/Institutional
Park

Land Use

With most of the East Greenfield Avenue sub-district currently vacant and/or underutilized, the area offers significant opportunities to achieve community goals for job creation and recreation/open space. Multiple land use alternatives were developed for these sites during the planning process. Flexibility to respond to market demand, the results of ongoing soil testing and cleanup, available funding, and the needs of potential users of the site will be required for successful redevelopment of this area consistent with overall plan goals. Sixty contiguous acres of vacant or underutilized land could attract a single very large user, or become a new work-play neighborhood comprised of many users. Regardless of the number of eventual end users, the sub-district should be developed as a mix of uses and should meet urban design guidelines identified elsewhere in this plan, with an active and publicly accessible waterfront.

1. Develop the sub-district predominantly with a mix of light industrial and commercial uses to provide jobs accessible to workers across a variety of educational attainment and experience levels.

2. Locate office, research and development, service, or retail uses along the primary corridors of the sub-district, including East Greenfield Avenue, the Waterfront, and potential East Mitchell Street extension. Concentrate light industrial uses in the interior of large sites.

3. The portion of 311 East Greenfield Avenue south of the Carferry slip should be considered for a mixed use district to reflect the residential neighborhoods of Bay View and Walker's Point. Multi-family residential use could be part of a mixed-use development here. This area could also be home to a civic anchor, fronting on an extended East Mitchell Street, that would leverage and activate a riverfront location.

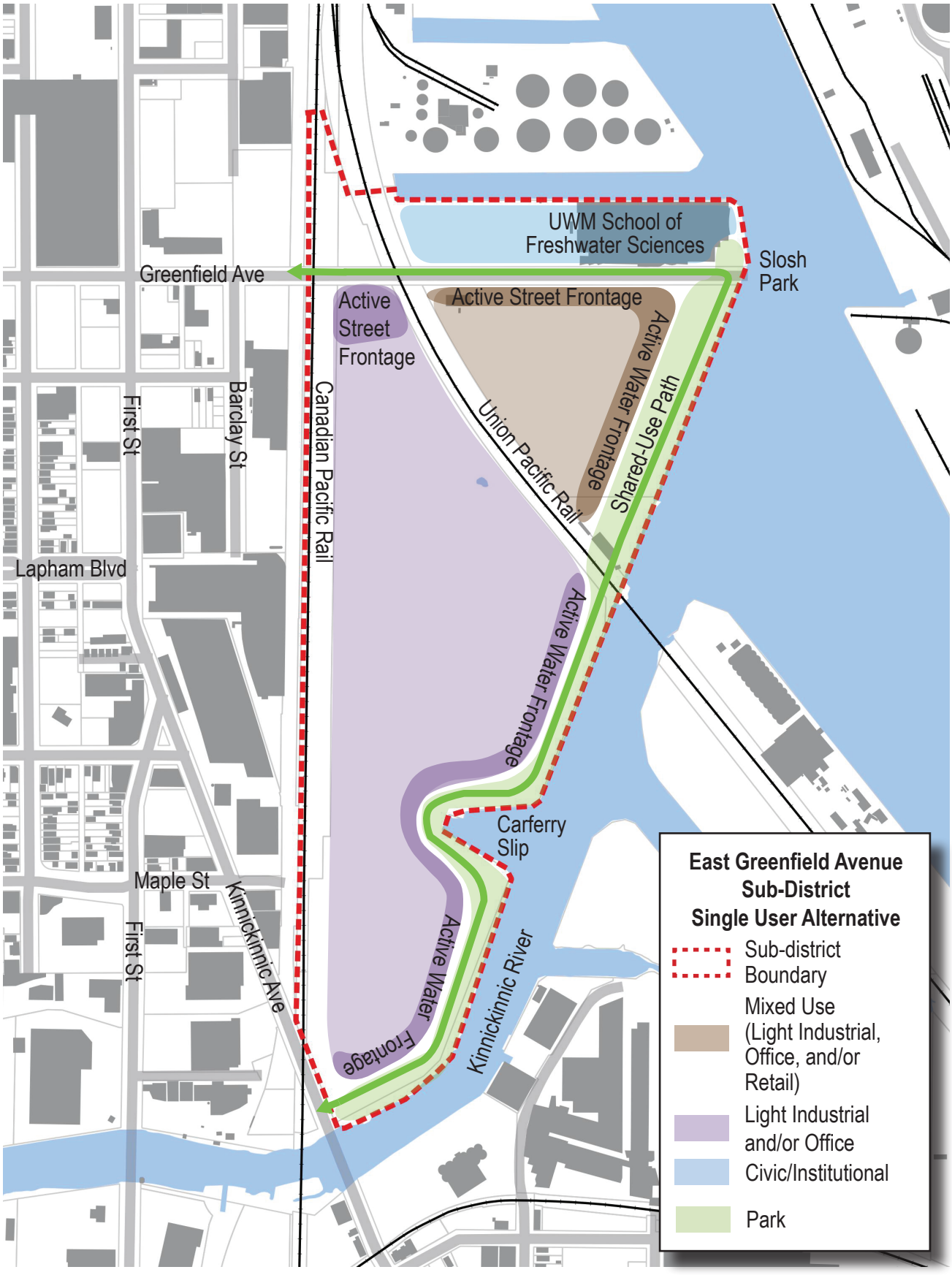
4. Seek users that complement and capitalize on the unique attributes of the area, such as the waterfront location; proximity to Rockwell Automation and UWM School of Freshwater Sciences; or the surrounding community of entrepreneurs and small-scale manufacturers.

5. Create a Riverwalk Overlay Zoning District aimed at creating continous public access to the waterfront, that includes all waterfront parcels in the East Greenfield Avenue sub-district. The City of Milwaukee and Harbor District Inc. will work with riverfront property owners during the drafting of the proposed Overlay District requirements and design standards to ensure that future Riverwalk plans and designs are responsive to property owner safety, security, and operational needs.

6. At 401 East Greenfield Avenue, the length of the waterfront should be developed as a new public space extending back on average 120 feet from the water's edge, to include shared-use paths, green infrastructure, and active, hardscaped play spaces (sport courts, etc.). If this waterfront is used for shipping, provide a means to secure the waterfront during loading and unloading activities, but maintain public access at other times.

7. Provide an at-grade crossing over the Union Pacific rail to allow users to access the entire waterfront.

8. At 311 East Greenfield Avenue, the length of the waterfront should be developed as new public space offering a more natural experience consistent with the smaller scale of the river (native vegetation, sloped water's edge, etc.). While the width of the public space at the water's edge may vary, it should not be less than 60 feet and average 100 feet.


UWM School of Freshwater Sciences
Slosh Park
Greenfield Ave
Active Street Frontage
Active Street Frontage
Active Water Frontage
Shared-Use Path
Union Pacific Rail
Canadian Pacific Rail
First St
Barclay St
Lapham Blvd
Active Water Frontage
Carferry Slip
Maple St
Kinnickinnic Ave
First St
Active Water Frontage
Kinnickinnic River
East Greenfield Avenue Sub-District Single User Alternative
Sub-district Boundary
Mixed Use (Light Industrial, Office, and/or Retail)
Light Industrial and/or Office
Civic/Institutional
Park

Building Forms

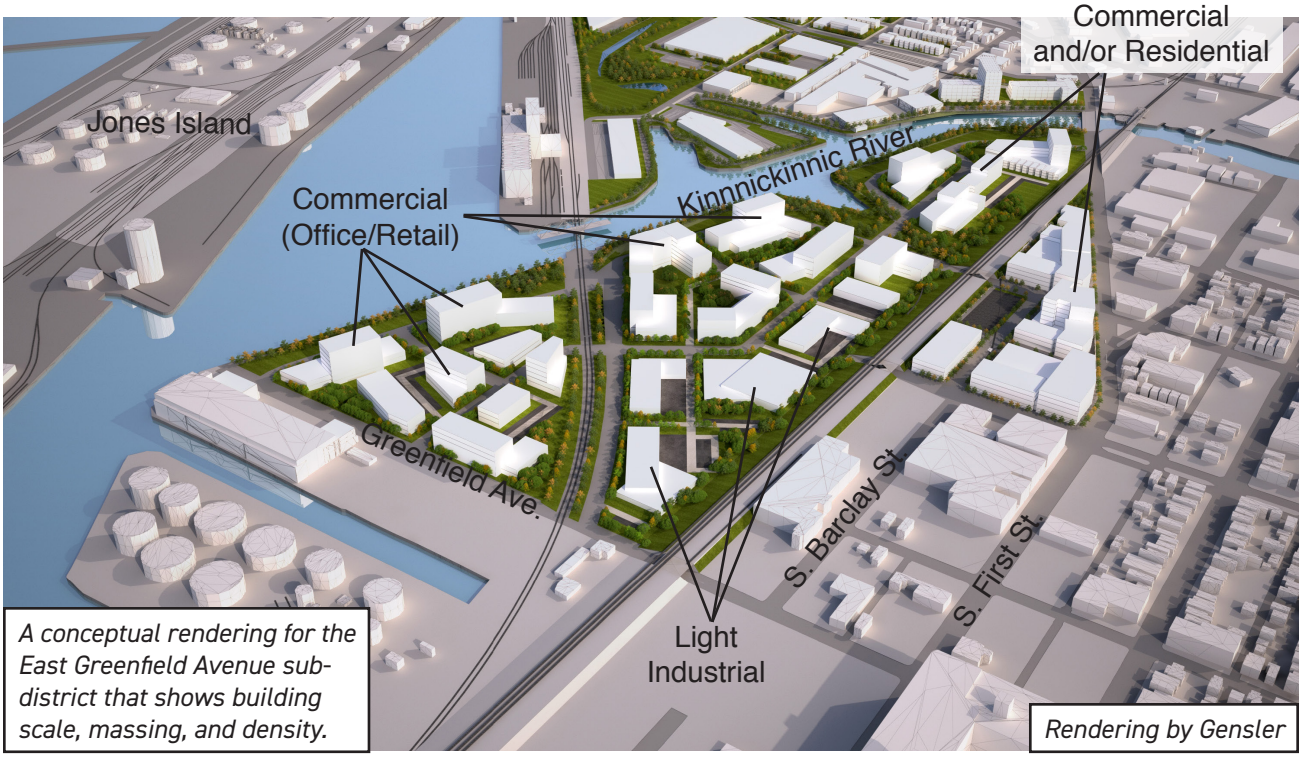
The only current building, other than several storage sheds, in the East Greenfield Avenue sub-district is the UWM School of Freshwater Sciences. With almost no buildings to set precedent for the sub-district there is an opportunity to develop a unique building language and pattern for the area. Public input during the planning process heavily favored a compact urban environment for new development as the area fills in. Maintaining a dense and urban built environment with the mix of uses envisioned for this sub-district will require dedication and vision by future stakeholders.

9. Buildings facing the waterfront or waterfront public space should have an active ground floor use facing the waterfront and/or public space. Priority uses include food and beverage establishments, water-dependent services (i.e. kayak rental), and any use that enlivens the waterfront by creating pedestrian activity.

10. Buildings at the end of Greenfield Avenue and along the extension of Mitchell Street should offer public-engaging uses (restaurant, retail, service), while buildings in other sections of the waterfront may rely on office or other uses to activate the street level.

11. The northeast corner of 401 East Greenfield Avenue is identified as a landmark site due to its prominent position along the waterfront, at the end of a major street (Greenfield Avenue), and immediately south of the UWM School of Freshwater Sciences. Any development that takes place here should have an active ground floor use and provide a building that is of unique architectural character.

12. Buildings located at the gateway intersections of two primary streets (e.g. First St., National Ave., Greenfield Ave., Lapham Blvd., Mitchell St., Water St.) or the visual termination points of primary streets at the water should contain special architectural features at these corners or termination points.



A conceptual rendering for the East Greenfield Avenue sub-district that shows building scale, massing, and density.

Transportation and Utilities

The only public street into and through the East Greenfield Avenue is East Greenfield Avenue. To achieve the Harbor District's vision substantial investments will be needed to create new access to the sub-district and to allow visitors to circulate throughout the district.

13. Extend Mitchell Street east from its current terminus at Kinnickinnic Avenue to the waterfront.
14. Explore options for providing truck access to the sub-district via changes to the railroad underpass at East Greenfield Avenue.
15. Design and build a new public street network for the 311 and 401 East Greenfield Avenue properties that provides access to future development, connects the two parcels across the Union Pacific rail spur, and incorporates the needs of all street users (pedestrian, bicycle, public transit, cars, and trucks).
16. Develop a new shared-use public path system that circles the East Greenfield Avenue sub-district including along the waterfront. The path network will connect to the Kinnickinnic River Trail and existing bicycle lanes on Greenfield Avenue and Kinnickinnic Avenue.
17. Create two new locations for canoe/kayak launches and docks in the East Greenfield Avenue sub-district, one at the east end of Greenfield Avenue and another in/near the Solvay Car Ferry Slip.
18. Maintain a long-term option to re-introduce shipping at 401 East Greenfield Avenue. This site offers valuable deep-draft water frontage. A building setback of 120 feet allows for the potential that this site could be used again for shipping in the future.
19. Consider use of steam for heat or industrial processes.

Multi-use waterfront trail in Frankfurt, Germany.

Public Space

The Harbor District as a whole is lacking in public spaces and the East Greenfield Avenue sub-district is no different, with no public space currently. However, as most of the sub-district is vacant we have an opportunity to provide significant public amenities that will connect surrounding residents to the water and provide much needed open green space for residents of the near south side and beyond.

20. Build a public plaza where East Greenfield Avenue meets the water's edge. "Slosh Park" was the winning design for a new public space at this site chosen during the Take Me to the River Design Competition in 2017. The space will include a new canoe/kayak launch, a public water feature, and a playground.

21. Design and build a new linear waterfront park that extends the length of the East Greenfield Avenue sub-district. The park would have a goal of extending back an average of 120 feet from the water's edge and include shared-use paths, a kayak launch, green infrastructure, more active spaces on the northern end (sports courts, playgrounds, etc.), and more natural spaces on the southern end (native vegetation, sloped water's edge, etc.).

22. Create a canoe/kayak launch and dock at two places in the East Greenfield Avenue district, one at the east end of Greenfield Avenue and another location further south along the waterfront near the Solvay Car Ferry slip.

Sport court with attractive fencing.

Rendering of proposed "Slosh Park" design by Quorum Architects and Ayres Associates. Design includes a canoe/kayak launch, water feature, and shipping container play structure and tower.

Stormwater

The entire East Greenfield Avenue sub-district lies outside MMSD's combined sewer service area and drains to the Kinnickinnic River. As such, the main stormwater priority for this area is ensuring that stormwater discharging to the Kinnickinnic River is not degrading water quality in the river. Strategies will focus on capturing the "first flush" - the most polluted first inch of rain - of stormwater on site to protect water quality. Complementary green and grey infrastructure practices will clean and filter subsequent amounts of stormwater prior to discharging to the Kinnickinnic River.

23. Develop a regional stormwater management strategy that captures 2.2 million gallons of stormwater in the East Greenfield Avenue sub-district to protect water quality. To capture the "first flush" of stormwater, a combination of traditional infrastructure, green infrastructure, water reuse, infiltration (where feasible), evaporation, and other processes will need to be employed.

24. Find opportunities to incorporate green infrastructure into the design and functionality of new or improved public spaces. For example, green infrastructure practices such as street trees, porous pavement, or bioswales should be included with new streets.

25. Incorporate a series of regional "stormwater parks" in the East Greenfield Avenue sub-district to provide stormwater management for adjacent private properties and developments. New public infrastructure (streets, sewer lines, etc.) should be installed to connect adjacent properties to the regional stormwater parks.

26. Avoid small, isolated landscaping and stormwater features. Rather, aggregate these features into a larger network to provide habitat, wayfinding to the water's edge, and quasi-public spaces, and connection to larger stormwater parks.

27. Build a demonstration wetland at the west end of the UWM School of Freshwater Sciences boat slip to help improve water quality.

28. Explore use of a demonstration wetland at the Solvay Car Ferry Slip for improved stormwater filtration and water quality improvements. See chapter 6: Catalytic Projects for more details.

29. Reconstruct the unimproved parking lot at the UWM School of Freshwater Sciences to improve the water quality of overland runoff discharging into the boat slip.

Menomonee Valley Stormwater Park after a large rain event.

photo by Eddee Daniel

Habitat

Because of it's proximity to the Grand Trunk Wetland, habitat improvements in the East Greenfield sub-district will focus on improving habitat connectivity along the water's edge. In addition to urban tree canopy improvements along new streets, green corridors will also be included in a new waterfront park to support bird and pollinator habitat.

30. Build a demonstration wetland at the west end of the UWM School of Freshwater Sciences slip to provide improved aquatic habitat, including interpretive boardwalk trails for improved access to the water.

31. Explore use of a demonstration wetland at the Solvay Carferry Slip for improved aquatic and riparian habitat. See chapter 6: Catalytic Projects for more details.

32. A new waterfront park along the entire edge of the East Greenfield sub-district will include a naturalized shoreline starting at the Solvay Car Ferry Slip moving south to the Kinnickinnic Bridge.

33. Explore options for creating an urban habitat corridor along the waterfront park and other trails.

Public Art

With the majority of the East Greenfield Avenue sub-district currently vacant, there is a significant opportunity to use art towards a variety of the goals described above. In the short term there is the opportunity for temporary art projects to activate vacant spaces. In the long term there is potential for art to educate the public on the history of this unique place while also defining a new and unique identity for an area that will change greatly.

34. Building off of the example set by the UWM School of Freshwater Sciences building, incorporate art into the design of buildings throughout the sub-district. As there will be many new buildings constructed, there is an opportunity to create a unique built environment on a large scale that is not found in other parts of the city.

35. With the best view of the Port provided from the waterfront of the East Greenfield Avenue sub-district, public art along the waterfront should educate, highlight, and engage visitors in the activities of the Port, ships, and waterways.

36. Use public art to reinforce East Greenfield Avenue as a major spine and gateway into the Harbor District that connects the waterfront back to the city and neighborhoods to the west.

Lower Kinnickinnic River

The Lower Kinnickinnic River sub-district follows the Kinnickinnic River and is bounded by South Kinnickinnic Avenue, South Robinson Avenue, East Ward Street, the Canadian Pacific Railroad, South Chase Avenue, South First Street, Lincoln Avenue, South Fourth Street, West Burnham St, South Third Street, and West Mitchell Street.

Existing Conditions

The Lower Kinnickinnic River sub-district is a historically industrial and marine oriented area situated between the Bay View neighborhood and the Near South Side. While dense neighborhoods of single-family homes, duplexes, and multi-family apartments crowd the edges of the sub-district on each side, there are few residences within the sub-district itself.

Today, a number of industrial and marine businesses still remain with three boat yards/marinas and a number of industrial users mostly located along South First Street. However, the area has experienced land use and building changes in recent years. A prominent location along the river at First Street was converted to a popular bar/restaurant in the early 2000s and a number of nearby industrial buildings were torn down in the 2010s. A large big-box retail development was recently constructed at the intersection of South First and Becher Streets where industrial buildings once stood. Several multi-family residential developments have been or are currently being constructed on the Bay View edge of the sub-district.

District Vision

As called for in the City's 2008 Southeast Side Area Plan, the Lower Kinnickinnic River sub-district will "create a new neighborhood that would provide jobs and housing in a vastly improved natural setting." The existing parks on the south end of the sub-district will be improved by creating better access to the river, while a continuous network of riverfront public space will be created for the remainder of the sub-district. Redevelopment on the land and habitat restoration in the water will help to reconnect this area to the Kinnickinnic River.


Maple St
Burnham St
Rogers St
Becher St
Grant St
Lincoln Ave
Fourth St
First St
Kinnickinnic River
Bay St
Kinnickinnic Ave
Ward St
Lincoln Field
Baran Park
Chase Ave
First St
Rosedale Ave
43
94
Lower Kinnickinnic River Sub-District
Sub-district Boundary
Mixed Use (Light, Industrial, Office, Retail, and/or Housing)
Light Industrial
Mixed Use (Retail, Housing)
Parks
Riverwalk
Existing Off-Street or Protected Bicycle Route
Proposed Off-Street or Protected Bicycle Route
Canoe/Kayak Launch
Trash Wheel

Land Use

Much of the sub-district is currently zoned Industrial-Heavy with the area northwest of First and Becher Streets zoned Industrial-Mixed. Rezoning some areas from Industrial-Heavy to a zoning classification that would allow for a greater mix of uses should be explored to support the transition of the area from exclusively industrial to more of a mix of uses. These land use changes will be focused around new and improved public space extended along the entire Kinnickinnic Riverfront.

1. Create a Riverwalk Overlay Zoning District aimed at creating continous public access to the waterfront, that includes all waterfront parcels in the East Greenfield Avenue sub-district. During the overlay zone adoption process, Harbor District Inc. and the City of Milwaukee will work with property owners to ensure that future Riverwalk plans and designs are responsive to property owner safety, security, and operational needs.

2. Rezone the areas currently zoned Industrial-Heavy to allow for light industrial, commercial, and/or residential.

3. Develop the RACM-owned parcel at 143 East Lincoln Avenue as the Lincoln Avenue Horse Stable, a facility for Milwaukee Police District horses and a horse therapy center, in accordance with building form and design guidelines outlined in this plan.

4. Encourage new development along the river to include space for marine businesses.

Building Forms

The majority of buildings in the sub-district are low-rise industrial or warehouse buildings, many of which would not be suitable for redevelopment for uses other than warehouse or light industrial. New development should create a dense urban neighborhood that connects with the neighboring Bay View, Clock Tower Acres, and Near South Side neighborhoods.

5. Any buildings constructed facing the riverfront should have a walkable and inviting waterfront facade. Priority uses include food and beverage establishments, water-dependent services (i.e. kayak rental, marinas, etc.), and any use that enlivens the waterfront by creating activity and pedestrian traffic.

6. Buildings along Becher Street, Lincoln Avenue, and South First Street should create a walkable and inviting streetscape by incorporating minimal setbacks, ground floor windows facing the street, and locating parking inside buildings or away from street frontages. Large blank walls facing the street should be attractively landscaped to create a pedestrian friendly streetscape.

photo by Eddee Daniel

An active ground floor facing the waterfront along the Riverwalk in the Third Ward.

Transportation

The Lower Kinnickinnic River sub-district is an important node in Milwaukee's greater transportation network. Interstates 94 and 43 form the western boundary of the sub-district, with the Becher Street interchange providing vital highway access to businesses in the area, the Port Milwaukee, and commuters. The Canadian Pacific Railroad runs north/south through the sub-district and carries freight and Amtrak passenger service between Milwaukee and Chicago. Bus lines run through the sub-district along Lincoln and Kinnickinnic Avenues. The Kinnickinnic River Trail runs along the river in the southern area of the sub-district to Lincoln Avenue. On-street bicycle lanes can be found on South First Street, Lincoln Avenue, and Kinnickinnic Avenue.

With so many transportation networks and modes converging in the Lower Kinnickinnic River sub-district it is important that future decisions take into account all of these users. The sub-district is important in connecting the Bay View neighborhood to the the Near South Side and other points to the north as well as connecting the Near South Side to employment and recreational opportunities to the east near Port Milwaukee, in Bay View, and along the lakefront

7. Redesign the Becher Street interchange at I-94/43 to improve safety and functionality for all users including pedestrians, bicyclists, and vehicles.

8. Complete the Kinnickinnic River Trail by connecting the southern off-street portion that ends at South First Street and Lincoln Avenue to the northern off-street portion that begins at South Kinnickinnic Avenue and Maple Street. The route should be a dedicated bicycle route and provide protection from vehicles (via off-street or protected on-street lane). See chapter 6: Access and Connectivity catalytic project for further details.

Public Space

The Lower Kinnickinnic River sub-district is home to the largest area of parks in the Harbor District. Lincoln Field is a city-owned park located along the west bank of the Kinnickinnic River immediately north of Lincoln Avenue. Baran Park is a county-owned park located along the west bank of the Kinnickinnic River immediately south of Lincoln Avenue. Improving these parks and connecting them to a continuous network of new park space extending the length of the Kinnickinnic River will create a valuable public amenity that is within close proximity to the dense neighborhoods of the Near South Side and Bay View.

9. Create a more cohesive and accessible riverfront at Baran Park and Lincoln Field, including new shared-use paths along the riverfront. These paths should connect to the future riverwalk overlay zone, connect the parks to each other, and connect to Lincoln Avenue to provide easy access for residents and visitors.

10. Create a new public park on the MMSD-owned properties located at 2112 and 2122 South Fourth Street. The park will include a new canoe/kayak launch and will connect to the future Riverwalk. The park could also serve as the service access point for the Trash Wheel (see the Improved Waterfront Experience for details on the proposed Trash Wheel).

Stormwater

The Lower Kinnickinnic River sub-district lays completely within the Combined Sewer System, but some riparian properties have overland flows and direct drainage to the Kinnickinnic River. Stormwater management in the Combined Sewer areas will focus on detaining and/or capturing rainwater where it falls to reduce the burden on the sewer system. On riparian properties, green infrastructure practices will be encouraged to filter and clean stormwater before it enters the river.

11. Capture or clean 2.1 million gallons of stormwater through green and gray infrastructure, and create green buffers at locations where urban runoff flows directly to the Kinnickinnic River.

12. Improvements to First Street from Lincoln Avenue to Chase Avenue should incorporate a green buffer to capture and clean stormwater before it flows to the Kinnickinnic River.

13. The riverwalk in this area should include green buffers where appropriate to capture and clean runoff before it enters the Kinnickinnic River.

Kinnickinnic River upstream of I-94/43 where the concrete channel was removed and the stream was renaturalized.

photo by Christopher Zaborsky

Habitat

The Lower Kinnickinnic River sub-district features some of the largest parks and green spaces in the Harbor District, including mature ash, oak, and maples along Baran Park and Lincoln Field. At the same time, a restored river in the area provides habitat for fish and a place for residents to reconnect with nature.

14. Coordinate efforts with MMSD, DNR, and other partners to restore aquatic habitat from the Becher Street bridge south to I-94 as part of Milwaukee Estuary Area of Concern remedial efforts.

15. Where possible, create naturalized shorelines as part of MMSD's flood management efforts.

16. Install a Trash Wheel near the Becher Street bridge to remove trash and debris before it enters the Inner Harbor. Explore options to include underwater habitat improvements as part of the trash wheel design. See the Improved Waterfront Experience catalytic project for more details.

17. Along the hardened shorelines north of the Becher Street bridge, install Habitat Hotels and other retrofits to improve aquatic habitat connectivity.

18. Remove invasive species and conserve forested portions of Baran Park and Lincoln Field.

Public Art

As an industrial waterfront for most of the last century, the Kinnickinnic River has long served as a divide between the Bay View and Lincoln Village neighborhoods. As this area transitions to a mix of uses, art can play a role in connecting surrounding residents to the river, celebrating the industrial heritage of the area, and conveying a vision of the future for this urban waterway.

19. Use art as wayfinding to attract nearby residents to future Riverwalk segments along the Kinnickinnic River.

20. Employ public art in improving the experience of Lincoln Field and Baran Park.

21. Develop a public art strategy as part of the Trash Wheel project that educates the public on the impact of the Trash Wheel and helps brand the project in a manner unique to Milwaukee.

Grand Trunk

The Grand Trunk sub-district borders the Bay View neighborhood on the south end of the Harbor District and is bounded by South Kinnickinnic Avenue, the Kinnickinnic River, the Union Pacific railroad, and Bay Street.

Existing Conditions

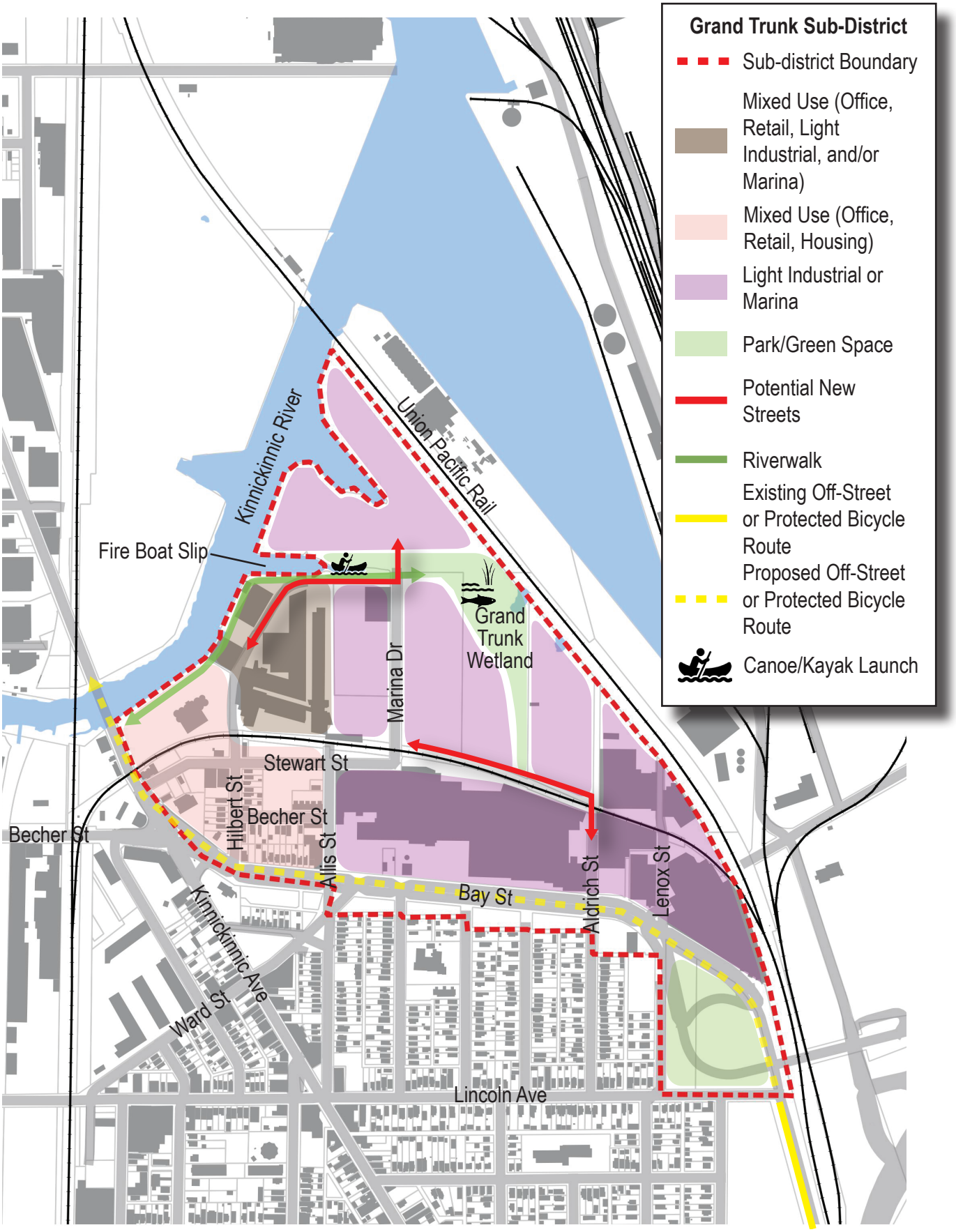
The Grand Trunk sub-district is a historically industrial and shipping area that lies between the Bay View neighborhood and the inner harbor. The area is still primarily industrial, with a small pocket of homes located in the southwest corner of the district near the intersection of Bay Street and Kinnickinnic Avenue.

Marine businesses are located along the Kinnickinnic Riverfront, including a cement company, a marina, and a parcel owned by Port Milwaukee. The Port Milwaukee property, known as the Grand Trunk site due to its previous use by the Grand Trunk Railroad Ferry, is the location of a wetland area that the City of Milwaukee is currently working to restore.

Remnants of the area's large industrial tenants dominate the sub-district, including a complex of cream city brick buildings that was once a Pfister & Vogel tannery and a large low-rise industrial building along Bay Street that was home to the Louis Allis Motor Company. A cluster of industrial businesses are located in the southeast corner of the sub-district along Bay Street.

District Vision

With its location between the Bay View neighborhood, the Kinnickinnic River, and Port Milwaukee, the Grand Trunk sub-district will serve as a transition area between the heavily residential neighborhoods to the south and the more mixed use and industrial areas of Port Milwaukee and the Harbor District. New industrial development will provide employment opportunities for city residents in an easily accessible location. A restored Grand Trunk wetland will provide fish spawning and birding habitat and will connect to a network of new waterfront public spaces along the Kinnickinnic River


Grand Trunk Sub-District
Sub-district Boundary
Mixed Use (Office, Retail, Light Industrial, and/or Marina)
Mixed Use (Office, Retail, Housing)
Light Industrial or Marina
Park/Green Space
Potential New Streets
Riverwalk
Existing Off-Street or Protected Bicycle Route
Proposed Off-Street or Protected Bicycle Route
Canoe/Kayak Launch
Kinnickinnic River
Union Pacific Rail
Fire Boat Slip
Grand Trunk Wetland
Marina Dr
Stewart St
Hilbert St
Becher St
Becher St
Allis St
Bay St
Aldrich St
Lenox St
Kinnickinnic Ave
Ward St
Lincoln Ave

Land Use

With residential, commercial, natural, industrial, and port activities all converging in the Grand Trunk sub-district, it is important to plan for how these many users will fit together. To protect Port Milwaukee from incompatible uses, the land use vision for this area is to create a buffer area of industrial users in the Grand Trunk sub-district and to encourage commercial shipping operations to locate on or near Jones Island.

1. Create a Riverwalk Overlay Zoning District aimed at creating continous public access to the waterfront, that includes all waterfront parcels in the East Greenfield Avenue sub-district. During the overlay zone adoption process, Harbor District Inc. and the City of Milwaukee will work with property owners to ensure that future Riverwalk plans and designs are responsive to property owner safety, security, and operational needs.

2. The Port Milwaukee owned Grand Trunk site should be developed as a restored wetland, light industrial area, and/or marine or marina uses in accordance with the recommendations in the chapter 6: Grand Trunk Wetland and Development catalytic project.

3. Rezone waterfront parcels and the former Pfister & Vogel tannery (2008 South Kinnickinnic Avenue and 1919, 1955, and 1982 South Hilbert Street) from Industrial-Heavy to a zoning classification that allows for a greater mix of uses. Housing is not envisioned at these sites.

4. When the St. Mary's Cement property at 2008 South Kinnickinnic Avenue transitions to a new use, redevelop the property as a mixed use development that would include housing and first floor commercial uses that can capitalize on the waterfront location between the Bay View and Clock Tower Acres neighborhoods. This site also provides an opportunity for a larger waterfront public space that is easily accessible from South Kinnickinnic Avenue and should be developed as part of the Riverwalk network.

5. When the former Louis Allis Motor Company property at 427 East Stewart Street transitions to a new use, explore opportunities to create new public rights-of-way through the site from Bay Street to the Grand Trunk site. This would involve dividing the site to create smaller light industrial parcels.

The former Louis Allis Motor Company facility.

Building Forms

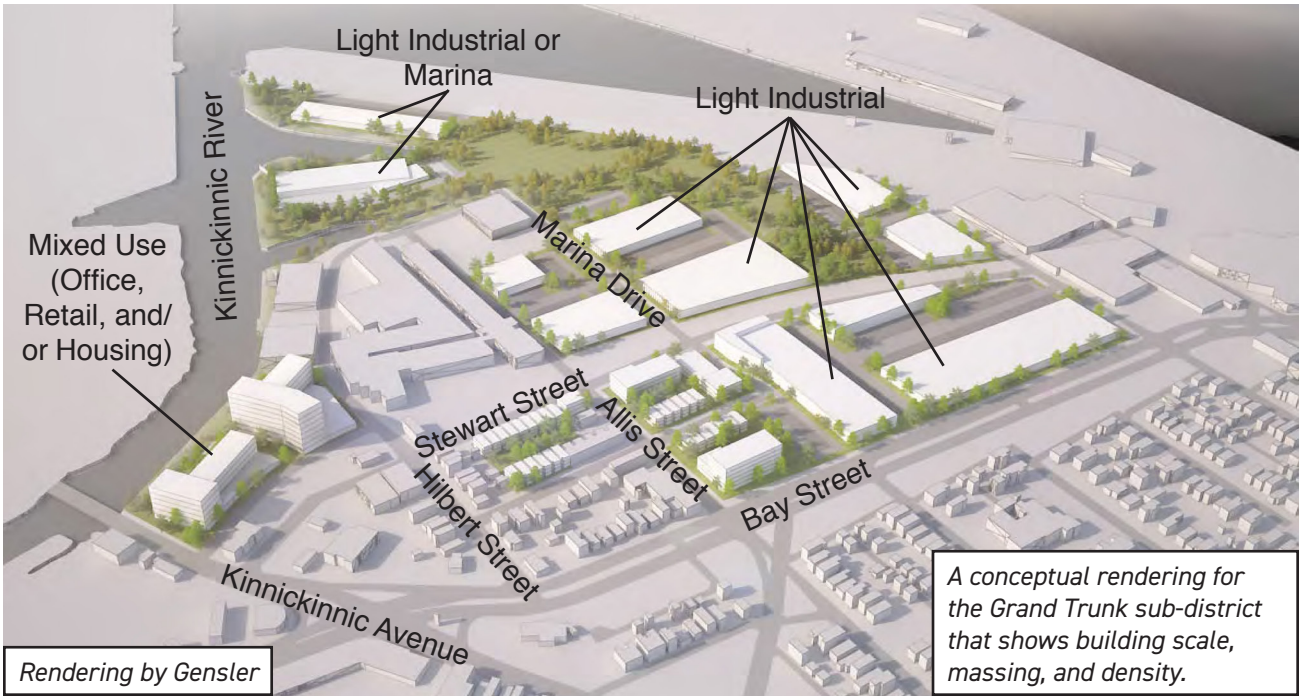
While most new industrial development tends to be suburban in character (large setbacks, large parking and loading bays, blank walls), new industry in the Grand Trunk sub-district should be encouraged to develop in a more compact and urban form that better fits with the city location and takes advantage of limited space. Existing historic and notable structures, such as the former Pfister & Vogel tannery and the unique rowhomes on East Becher Street, should be preserved and redeveloped in a historically sensitive manner.

6. Any buildings constructed facing the waterfront or waterfront public space should have an active ground floor use facing the waterfront and/or public space. Priority uses include food and beverage establishments, water-dependent services (i.e. kayak rental), businesses that rely on water access, and any use that enlivens the waterfront by creating activity and pedestrian and/or boat traffic.

7. Buildings along South Kinnickinnic Avenue should create a walkable and inviting streetscape by incorporating minimal setbacks, ground floor windows facing the street, and locating parking inside buildings or away from street frontages.

8. Buildings along South Allis or East Stewart Streets facing the residential, commercial, and mixed-use area to the southwest should be built close to the street with a pedestrian-friendly facade that includes windows and entrances to provide a more welcoming and human-scale presence. Outdoor storage yards and parking should not be located on these streets or, if absolutely necessary, should be well screened and/or landscaped. These design considerations will provide a more attractive and livable transition between the residential and mixed-use area to the southwest and the industrial area to the north and east.

9. Any new multi-family or townhouse style development within the residential portions of this sub-district should fit within the existing context and respect surrounding residential properties.



Rendering by Gensler

A conceptual rendering for the Grand Trunk sub-district that shows building scale, massing, and density.

Transportation

Existing businesses in the Grand Trunk sub-district cite the area's easy access to interstates 94/43 and 794 along with close proximity to a large labor pool on the City's south side as major reasons for locating here. Industrial properties also have access to rail via the Union Pacific rail spur that runs along the eastern edge of the sub-district and the Canadian Pacific railroad that runs through the southern portion of the sub-district. St. Mary's Cement and Port Milwaukee tenants at the Grand Trunk site use the Kinnickinnic River for commercial shipping activities. The Oak Leaf Trail runs along Bay Street on the southern edge of the sub-district and a heavily travelled bicycle route on South Kinnickinnic Avenue connect bicyclists to and through the sub-district.

10. Explore options to extend South Hilbert Street to the Fire Boat Slip and create a new right-of-way to connect with South Marina Drive.

11. When the former Louis Allis Motor Company property at 427 East Stewart Street transitions to a new use, determine if it is possible to extend East Stewart Street east along the north side of the Canadian Pacific railroad and connect to South Aldrich Street to provide new public access to the north side of the property.

12. Create a dedicated and protected bicycle route along East Bay Street. This could be an extension of the raised bicycle lane that is found further south along Bay Street or a protected bicycle lane. See the Access and Mobility catalytic project for more details.

13. Create a dedicated and protected bicycle route along South Kinnickinnic Avenue. See the Access and Mobility catalytic project for more details.

14. Create a canoe/kayak launch on or near the former Fire Boat Slip. This slip will provide access to a variety of amenities in the area including the Grand Trunk Wetland, boating services, and nearby food and beverage establishments.

Public Space

The Grand Trunk sub-district currently has no public spaces, although several grassy parcels are located along the south side of East Bay Street with MMSD infrastructure underneath. Future development of the area will include new public space along the waterfront connecting to a restored wetland habitat area in the center of the Grand Trunk site. New public spaces will provide areas for relaxation, recreation, natural habitat, and stormwater management infrastructure.

15. When the St. Mary's Cement property at 2008 South Kinnickinnic Avenue transitions to a new use, create a larger public space along the waterfront that would serve as an expanded riverwalk segment.

16. Create public access to the Grand Trunk Wetland. Include opportunities for environmental education and controlled public access, such as boardwalk trails.

17. Connect the Riverwalk to the Grand Trunk Wetland with a public shared-use path that runs along the south side of the Fire Slip.

Stormwater

Stormwater management in the Grand Trunk sub-district includes considerations for properties within and outside of the combined sewer service area. For areas in the combined sewer, green infrastructure and green streets will help capture stormwater before it enters the sewer. Areas adjacent to the Grand Trunk Wetland deserve additional considerations to ensure that stormwater entering the wetland does not negatively affect the function and habitat of the restored wetland. Additionally, properties adjacent to the Kinnickinnic River play an important role in protecting water quality. Stormwater management practices and green infrastructure can serve as a buffer in these areas.

18. Capture or clean 1.5 million gallons of stormwater in the Grand Trunk sub-district to help improve water quality in the Grand Trunk Wetland and adjacent water bodies, while also reducing impacts on the combined sewer system.

19. Conduct next-level stormwater planning to protect the Grand Trunk Wetland. Include opportunities to daylight sewers, and incorporate a plan for a regional stormwater management park to capture and/or filter stormwater from adjacent industrial sites before it enters the wetland and the Kinnickinnic River.

20. Provide a green buffer and biofiltration facilities along the shoreline of of the Grand Trunk site to capture and clean runoff before it enters the Kinnickinnic River

21. Create a biofiltration facility along South Marina Drive to capture and manage stormwater from the street and adjacent properties, and consider "daylighting" the sewer in this area to provide added stormwater management and habitat benefits.

22. Highlight unique water features of the area, such as the MMSD deep tunnel and the Grand Trunk Wetland, and educate the community about their importance to water quality.

Habitat

With the last remaining wetland in the entire Milwaukee Estuary, the Grand Trunk sub-district provides a unique opportunity to restore the Grand Trunk Wetland into an improved and functioning coastal ecosystem in an otherwise very urban area.

23. Restore the Grand Trunk Wetland to include northern pike spawning habitat, ephemeral ponds for amphibians and reptiles, and surrounding forested and upland habitat.

24. Use the restored wetland as an educational tool to engage residents.

25. Implement green infrastructure practices adjacent to the Grand Trunk Wetland to provide habitat connectivity.

Wetland habitat in urban park in Paris, France.

Public Art

Similar to other areas in the Harbor District, the Grand Trunk sub-district is physically separated from the rest of the city and surrounding neighborhoods. Public art should be used to demystify the area and educate people on the many amenities and opportunities that exist within this sub-district.

26. Use public art to beautify and enliven the rooftop of the former Louis Allis facility, which is highly visible from Bay Street and the Bay View neighborhood.

27. Explore opportunities for art on the railroad bridge on Kinnickinnic Avenue that will serve as a gateway to the Harbor District from the south.

Rooftop public art installation in Walker's Point.

Rowhomes on East Becher Street.

Jones Island

The Jones Island sub-district is a peninsula that is bordered by the Kinnickinnic and Milwaukee Rivers, Lake Michigan, South Carferry Drive, and the Union Pacific rail line.

Existing Conditions

The Jones Island District is a unique area of the city that includes only industrial, transportation, and utility uses. The northern third of the Jones Island peninsula is occupied by the Milwaukee Metropolitan Sewerage District's (MMSD) Jones Island Water Reclamation Facility, where Milorganite has been made since 1926.

The remainder of the Jones Island peninsula is owned and operated by Port Milwaukee as an international commercial shipping port. The Port leases out its property to a variety of tenants engaged in commercial shipping and distribution operations. There are several ship terminals located on the east side of Jones Island, the west side of Jones Island is available deep draft docking space, and the majority of the interior of the island is devoted to storage and/or transloading of bulk materials (salt, cement, steel, etc.). Water transport provides significant cost savings for these materials over other modes of transport, and storage at the port prior to final distribution is convenient and inexpensive. These activities are not highly job-intensive , as reflected in the Port's overall job density of 2.8 jobs per acre.

Across the Municipal Mooring Basin to the west of Jones Island is a waterfront property owned and operated by an international grain company. The property has deep draft docking, rail access, and a series of large silos used for storing grain.

Most of the Jones Island peninsula is filled lakebed. Use and development of the area is governed by Wisconsin's public trust doctrine, which preserves the waters of the state, and the land beneath them, for public use. Beyond that, courts have also interpreted the doctrine to limit the kinds of uses that may take place on such lands.

District Vision

Port Milwaukee and MMSD's facilities will support Milwaukee's goals as a Water Centric city by achieving high standards in environmental sustainability. As the premier commercial shipping port in the State of Wisconsin, Port Milwaukee will continue to support industry and strengthen the regional economy through efficient movement of freight.


Grand Trunk Sub-District
Sub-district Boundary
Park/Green Space
Existing Off-Street or Protected Bicycle Route
Proposed Off-Street or Protected Bicycle Route
Public Waterfront
794
Jones Island Water Reclamation Faciltiy
Heavy Lift Dock
Kaszubes Park
Lake Michigan
Mooring Basin
Kinnickinnic River
Liquid Cargo Terminal
OSOW Connection
Confined Disposal Facility
Lincoln Memorial Dr
Bay St
Lincoln Ave
Conway St
Bay St
Oak Leaf Trail

Land Use

The Jones Island sub-district will continue to serve as a commercial shipping port and utility facility. Even as the remainder of the Harbor District transitions to less heavy industrial uses, outdoor storage of bulk materials, for instance, will continue at Port Milwaukee for the foreseeable future. New public access will allow visitors to experience the port up close in a safe manner that does not interfere with port operations.

1. Uses and tenants on Jones Island should be consistent with the Public Trust Doctrine, relevant WaLUP recommendations, and economic goals and strategies for the region as a whole. Tenants should be held to environmental standards consistent with Milwaukee's goals to improve the quality of waterways.

2. Maintain the Municipal Heavy Lift Dock, continuing to make new investments and improvements as needed to serve key customers. Aggressively market this asset as part of Harbor District attraction efforts.

3. Port Milwaukee should identify unused and non-leasable space that can be used for public space, green infrastructure, or other public benefits.

4. Port Milwaukee should seek ways to maintain flexibility, perhaps through shorter leases, that will enable it to respond to changing markets and opportunities.

5. Prioritize uses that involve value added in Milwaukee rather than strictly transloading, to increase the economic impact of the Port.

Building Forms

Buildings within Jones Island will likely be designed and constructed according to the functional needs of each facility and operation. However, Jones Island's high visibility from surrounding neighborhoods, waterways, and the elevated I-794 highway provide an opportunity to design facilities in an interesting, artistic, and aesthetically pleasing manner.

6. As new facilities are built or existing facilities are refurbished on Jones Island, the Port and its tenants should consider the visual impact facilities will have on the Milwaukee skyline and waterfront.

7. Explore options to reduce odors from facilities across the Harbor District including MMSD's Jones Island Water Reclamation Facility, manufacturers, and other facilities.

Transportation

Port Milwaukee and its tenants depend on reliable and efficient transportation networks to operate. Highways, streets, railroads, and shipping routes all converge at Jones Island to carry the materials, cargo, and people that make the Port, its tenants, and neighbors work. Strategic investments and actions should be made to ensure that the transportation networks that serve Jones Island are doing so in an effective manner.

8. Maintain or enhance rail connections to Port Milwaukee. Pursue opportunities to restore intermodal service at Jones Island or elsewhere to enhance shipping options for the region.

9. Maintain Over Size Over Weight (OSOW) access to Jones Island via Bay Street north of Lincoln Avenue. Support efforts to maintain OSOW routes connecting to Port Milwaukee.

10. Develop a bicycle and pedestrian loop through Jones Island that will allow visitors to experience Port Milwaukee without interfering with Port and tenant operations. The loop will connect with the Oak Leaf Trail via South Lincoln Memorial Drive and connect to Kaszubes Park.

Public Space

While largely unknown to most Milwaukee area residents, Jones Island is home to one of the smallest parks in the City of Milwaukee. Kaszubes Park is a small grass plot that memorializes the fishing village that was once populated with immigrants from northern Poland. The waterfront south of the liquid cargo terminal on the east side of Jones Island is open to the public and is used for fishing. There is potential to expand on these public amenities and provide public access to Jones Island, although in a manner that does not interfere with the Port and the ability of its tenants to operate.

11. Improve and expand Kaszubes Park to include access to the waterfront. Ensure that bicycle and pedestrian access to the park is available via the Jones Island bicycle and pedestrian loop and the Oak Leaf Trail.

12. Improve the lakefront area between the liquid cargo terminal and the Confined Disposal Facility to create a public fishing and recreation area that is clearly marked, publicly accessible, and inviting.

13. When the Confined Disposal Facility (CDF) transitions from its current use, explore the creation of a public park as part of any future use, focusing on natural bird and wildlife habitat. The site's location along the Lake Michigan flyway has already made it a popular birdwatching location. Public access should be limited to designated pathways that preserve bird and wildlife habitat.

Kaszube's Park on Jones Island.

Stormwater

Jones Island falls completely outside of the Combined Sewer area. Stormwater is conducted to the Lake and Inner Harbor via storm sewers, with little to no treatment. The area includes much of Port Milwaukee's shipping operations, and can be visited by hundreds of semi-trucks each day. While stormwater management practices are in place for Jones Island, the area's intense industrial nature necessitates additional stormwater management practices in order to capture and clean polluted runoff.

Conceptual rendering showing stormwater collection from the elevated Interstate 794.

Rendering by SEH

14. Conduct next-level stormwater planning on Jones Island to protect water quality in the Inner and Outer Harbors. Creative stormwater solutions will provide the most water quality benefits for the investment.

15. Incorporate green infrastructure practices where feasible.

16. Develop innovative solutions to address water quality issues caused by road salt storage. Prioritize structural solutions over management actions that require ongoing tenant training and commitment to implementation.

17. Assess runoff from the I-794 overpass and develop solutions that do not interfere with Port Operations.

Waterfront park under a bridge in Philadelphia.

Habitat

Jones Island Planning District is home to Port Milwaukee and Milwaukee's Wastewater Reclamation Facilities providing little opportunity for large-scale habitat improvements. In addition to implementing district-wide recommendations where possible, there are opportunities to improve the habitat functionality in some locations.

18. Identify shoreline locations conducive to Habitat Hotels and other habitat retrofits, and implement shoreline improvements which do not impede shipping traffic.

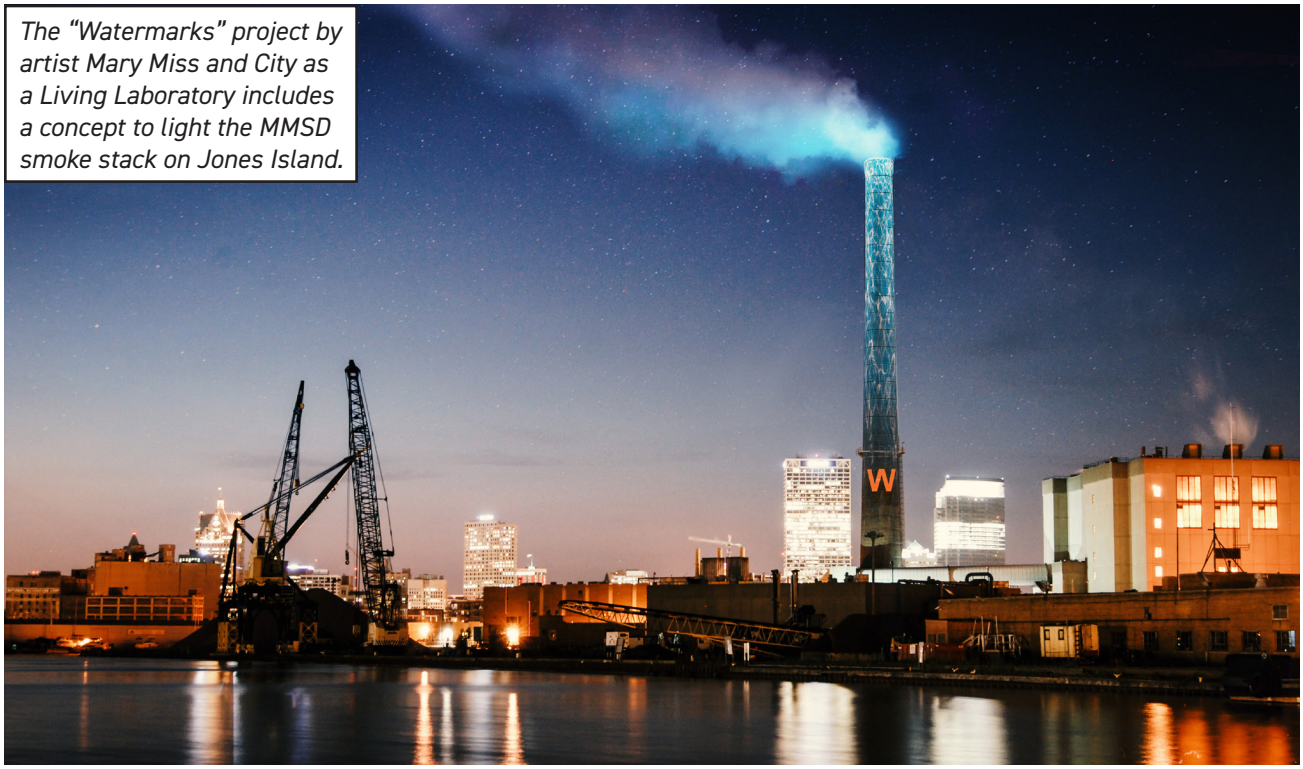
19. Where feasible, improve green spaces on Jones Island, especially in coordination with green infrastructure projects.

Public Art

With Jones Island being a highly visible, yet seldomly visited, section of the city there is an opportunity for public art to shed light on the functions and activities of Port Milwaukee, its tenants, and the MMSD water reclamation facility.

20. Use art to brighten and enliven the infrastructure of Port Milwaukee and MMSD's Jones Island water reclamation facility, as well as to highlight the essential functions of this infrastructure. Focus on large infrastructure such as silos, smokestacks, and warehouses.

21. Identify opportunities to improve the appearance of Kaszubes Park and include art that more completely and accurately honors the people who once lived on Jones Island.



The "Watermarks" project by artist Mary Miss and City as a Living Laboratory includes a concept to light the MMSD smoke stack on Jones Island.

The Water

The Water sub-district includes the lower reaches of the Milwaukee River downstream from the Broadway Street Bridge, the Kinnickinnic River downstream from South Chase Avenue, the inner harbor and Municipal Mooring Basin, and the outer harbor east of Jones Island stretching from the river mouth to Coast Guard Station.

Existing Conditions

Milwaukee's past successes and future potential are linked to the waters of the Harbor District. Native American tribes lived in villages in and near the Harbor District to take advantage of the wildlife, fish, and rice that capitalized on plentiful, clean water. Milwaukee was founded and flourished due to its deep harbor and easy access to water. Over the nineteenth and twentieth centuries, Milwaukee transformed the lush and verdant landscape of the estuary into a hardened industrial powerhouse and port. While the waters of the Harbor District helped fuel industrial Milwaukee, this transition left our waters polluted and disconnected from most of the city.

The waters of the Harbor District are going through another transformation as much of the industry that once relied on water access is gone. While there is work to be done, water quality has improved drastically since the introduction of the Clean Water Act in the 1970s. Milwaukeeans are rediscovering the joys of its waterways and visiting the Harbor District for fun and recreation. In just the past few years property owners and businesses along the Milwaukee and Kinnickinnic Rivers are reporting sharp increases in the number of recreational boaters, kayakers, paddleboarders, and fishermen taking advantage of this unique asset.

Most of the water in the Harbor District is lined by sheet metal or timber dock walls built in the past 100 years. While there are a few small areas of natural sloping water's edge hidden along the Kinnickinnic River or where dockwall has failed and collapsed, the vast majority of the Harbor District's waterfront was filled and lined to support shipping, dredging, and upland construction.

The water is used for commercial shipping purposes along the Kinnickinnic River from the Kinnickinnic River Bridge downstream, in the Municipal Mooring Basin, and in the outer harbor. Recreational boating takes place everywhere, although the majority of traffic is on the Milwaukee River or boats travelling to and from marinas on the Kinnickinnic River.


The Water Sub-District
Sub-district Boundary
Commercial Shipping
Recreational Boating
Canoe/Kayak Launch
Trailered Boat Launch
Habitat Restoration Opportunities
Milwaukee River
Inner Harbor
Outer Harbor
Mooring Basin
Kinnickinnic River
794
43
94

District Vision

The Waters of the Harbor District will support a variety of activities and habitats including commercial shipping, recreational boating, fishing, and natural aquatic habitat. Water activities will be safe and welcoming to everyone, with areas designated for specific water activities clearly marked. Milwaukee residents and visitors will feel a connection to their waterways and will develop a renewed appreciation for the value and role our estuary plays in our community.

Water Use

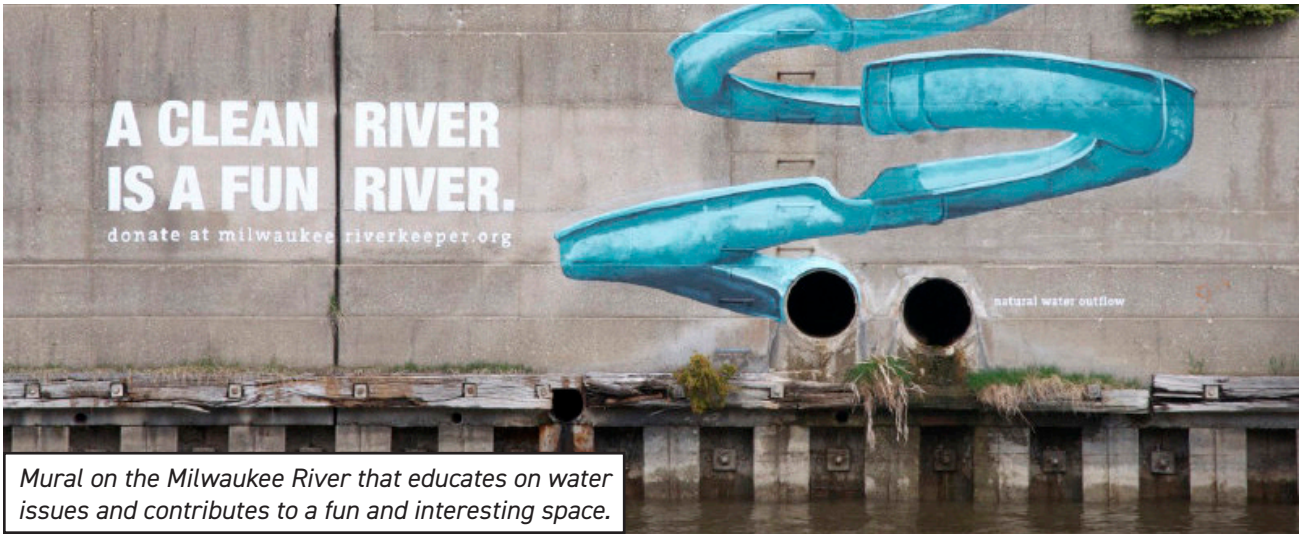
Historically, the waters of the Harbor District have been dominated by commercial shipping vessels and barges. The exception would be each spring and fall when recreational boats travel to and from the marinas of the Lower Kinnickinnic River District. However, in recent years there has been a rapid increase in the use of the Harbor District's waterways for recreation, especially by kayaks and canoes. With increased recreational boat traffic, new recreational boating destinations on the Kinnickinnic River, and continued commercial shipping traffic to and from Jones Island it will be important that the needs of all these users are considered and balanced to ensure safe and proper use of our waterways.

As commercial shipping vessels and barges come into increased contact with recreational boats, keeping all parties safe is the most important goal. Developing clear rules and areas of operation for various water users will ensure that commercial waterborne transportation and recreational water users will be able to share the Harbor District's waterways.

1. Commercial shipping vessels and operations should be focused on the waters of the Mooring Basin, the inner harbor, and the outer harbor. All commercial shipping operations should take place downstream of the Union Pacific swing bridge on the Kinnickinnic River.

2. Recreational boating (powerboats, sailboats, kayaks, canoes, paddleboards, etc.) should be focused on the western shore of the inner harbor and the Mooring Basin and Milwaukee Rivers. Recreational boats should be discouraged from travelling in the Municipal Mooring Basin or near the commercial shipping terminals in the outer harbor.

3. Identify opportunities to reduce conflicts between all waterway users.



Mural on the Milwaukee River that educates on water issues and contributes to a fun and interesting space.

A man-made waterfront that retains a natural sloped water's edge and provides an interesting space for public use.

Water Experience and Design

When considering how to develop areas along our waterfront, most consideration is given to how people experience the water's edge from the land. However, as more recreational boat traffic takes place in the Harbor District it will be important to consider that many people will be experiencing Milwaukee's waterfront from the water. How the water's edge looks and is experienced from the water will be an important component in Milwaukee's efforts to identify itself as a world-class water city. Safety for all users is another important component of the experience.

4. Exits from the water to the land (ladders, ramps, etc.) will be located at least every 100 feet along the entire shoreline of the Harbor District. Property owners installing new egress should take into account the location of egress on adjoining properties. Ladders should be clearly marked for visibility and well maintained. Construction should account for varying water levels and provide anti-slip measures.

5. Develop a wayfinding and informational signage network to inform water users of safe and responsible boating practices. Signs will be designed to be read by boaters on the water and will direct boaters to various destinations, inform of preferred boating areas, and post boating regulations.

6. As waterfront properties are redeveloped, give consideration to how the development will look from the water. Regardless of the type of water's edge (sheet metal, timber, rip rap, etc.) efforts should be made to create an attractive waterfront that incorporates architecturally significant, artistic and/or natural features.

Transportation

The many waterways of the Harbor District provide a unique opportunity to move people and freight in a manner that has not been widely used in recent decades in Milwaukee. Milwaukee should follow the example of other waterfront cities and explore the potential to transport people and goods through and to the Harbor District on the water.

7. Collaborate with the Harbor Safety Committee to develop and implement solutions for educating the public about waterway safety.

8. Explore opportunities to develop waterborne transportation such as water taxis or short route ferries.

Map of conceptual water taxi routes and stops (blue dotted line) in and near the Harbor District (green).

Public Space

Just as the land of the Harbor District has very little public space, the waters of the Harbor District have been largely inaccessible to the public for many years. Improvements along the water's edge and in the waterways will allow the public to experience the waters of the District and connect with this valuable asset.

9. Create at least four new water access points within the Harbor District where someone could launch and dock a canoe or kayak. One site should be located in each of the following areas: the Lower Kinnickinnic River sub-district, the Grand Trunk sub-district, the East Greenfield Avenue sub-district, and the Harbor View sub-district.

10. Integrate the Harbor District into Milwaukee Urban Water Trail and the Lake Michigan Water Trail. The trail will follow the western shore of the inner harbor, extend from the Broadway Bridge on the Milwaukee River to Lincoln Avenue on the Kinnickinnic River, and be demarcated with signage and structures to separate canoes/kayaks from larger commercial vessels.

Habitat

Because of its location as a connecting water body between Lake Michigan and Milwaukee's three rivers, the Water sub-district serves as an important aquatic habitat juncture. However, habitat areas are currently disconnected, limited, and in poor condition. Improvements for aquatic habitat include improved connectivity, small scale habitat retrofits, and large scale habitat restoration projects.

11. Create in-stream and shoreline habitat improvements along 15% of the Water sub-district's shoreline, or approximately one mile of shoreline, including naturalized shorelines where feasible, and installing aquatic habitat retrofits in other locations.

12. Improve habitat connectivity along the shores of the Water sub-district in alignment with recommendations from the UWM School of Freshwater Sciences Harbor Habitat Mapping initiative.

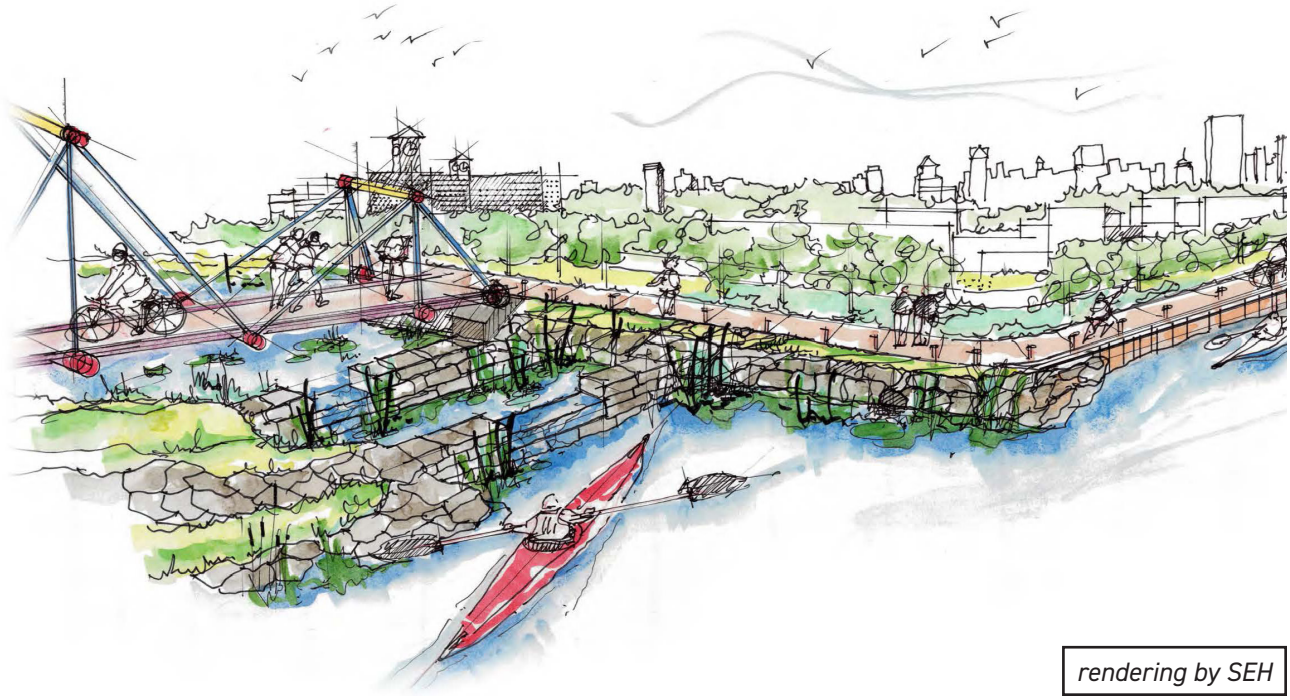
13. Restore aquatic habitat at the Grand Trunk Wetland, and along the Kinnickinnic River Corridor from Chase Avenue to Becher Street.

14. Create demonstration wetlands at the UWM School of Freshwater Sciences boat slip and at the Solvay Car Ferry site.

15. Install Habitat Hotels and develop pilot projects to improve the habitat function of steel sheet piling bulkheads.

16. Continue improvements to the breakwater to add habitat. If dredging materials becomes available, consider an expanded breakwater habitat system similar to the Cat Island chain in Green Bay.

Rendering showing conceptual waterfront habitat, stormwater treatment cells, and public access along former Solvay Coke site waterfront.



rendering by SEH

Water Quality

The Harbor District can play a central role in building Milwaukee's brand as a Water Centric City and the health of our waterways is a key component. New developments, impervious cover, and the daily activities of an evolving urban neighborhood all have the potential to affect the water quality of adjacent waterways. With new development increasing impervious area, proactive stormwater management will be essential to ensure that water quality improves in concert with the revitalization of the land.

Not all threats to water quality are new or ongoing. Throughout Milwaukee, sediments beneath the waterways contain contaminants that are the legacies of past industrial use. These sediments result in impairments to wildlife health and limits on human consumption of fish.

17. Remediate contaminated sediments, and delist all sediment-related Beneficial Use Impairments of the Milwaukee Estuary Area of Concern.

18. Improve water quality of all Harbor District waterways and carry out recommendations of the Total Maximum Daily Load (TMDL) implementation plan.

19. Use Harbor District waterways as a tool for outreach and education, highlight the importance of water quality issues, and continually provide opportunities for residents to connect with the water.

Public Art

The view and experience of the the water's edge from a boat is pretty similar across most of the Harbor District. Generally a boater is looking at a sheet metal dockwall, although in places it may be wood, large stones, or collapsed dockwall overtaken by vegetation. Art can be employed to create a diversity of experiences for someone travelling on the water through the Harbor District. Art installations on the dockwall or shoreline and installations on the land at the water's edge would serve to create a more interesting experience and provide more reason for people to explore the waterways of the Harbor District.

20. Install shoreline artwork in coordination with the Habitat Hotels program to help tell the story of Harbor District's underwater world, and to provide opportunities for boaters to interact with the shoreline in new ways.

21. Wayfinding signs, such as those for boat launches or access points, should be eye-catching and appealing.

22. Art visible from the water should provide glimpses of the varied history of these waterways.