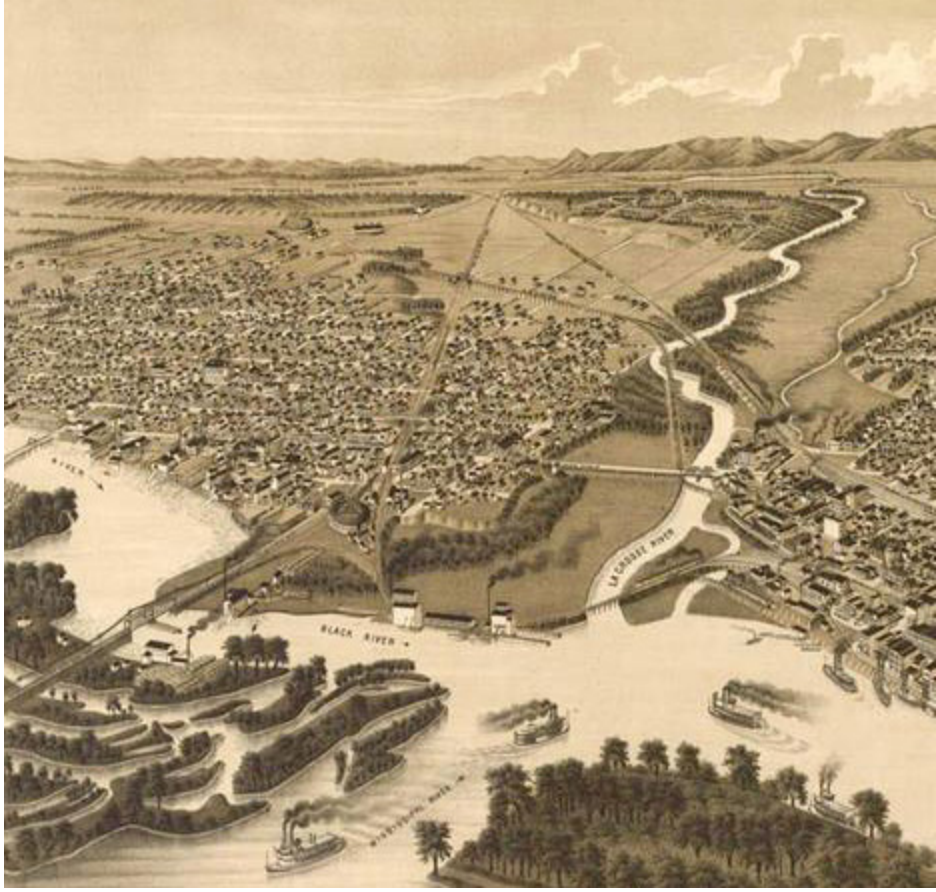
RIVERSIDE NORTH
La Crosse

RIVERSIDE NORTH LA CROSSE

Charrette Master Plan Report

October 2014



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acknowledgements

The Riverside North Charrette Master Plan was made possible through the hard work of the following:

- The City of La Crosse and Planning & Development Department
- The Riverside North Steering Committee
- Various stakeholder groups including:
  - Economic development groups
  - Heritage preservation groups
  - Philanthropy groups
  - Transportation & infrastructure groups
  - Downtown business owners
  - Housing and non-profit groups
  - Environmental groups
  - Outdoor recreation groups
  - Development and land use groups
  - Youth and service organizations
- Neighbors of the Riverside North site
- The Consultant team including:
  - SEH
  - JJR
  - AES
  - Tom Low
  - Maxfield Research

And by the insights provided in the following precedent plans:

- Comprehensive Plan "Confluence"
- Riverside Redevelopment Project Plan
- Park and Open Space plans
- County/City Strategic Plan for Sustainability
- The City Vision 2020 Master Plan of the City of La Crosse
- Various TIF District Project Plans
- First Impressions Study by UW Extension
- La Crosse Highway 53 Corridor Enhancement Plan
- Great River Road Plan
- Transient Boat Docking Facility Feasibility Study
- Port and Waterfront Plan
- Existing Land Use and Zoning
- Downtown Market Analysis and Survey
- Economic Development Strategic Plan
- City/County Housing Task Force Report
- Wetlands Study
- Ornithology Report

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INTRODUCTION & EXECUTIVE SUMMARY

Project Site

Located along Copeland Avenue/US 53 at the confluence of the Mississippi, Black and La Crosse Rivers, the design for the +65-acre Riverside North project re-imagines the former industrial properties as a vibrant, new, mixed-use waterfront neighborhood. Site master planning continues the City's downtown revitalization efforts, embodying principles of sustainable design, realistic and market responsive development, and interactive community engagement. Master planning for project was conducted using a seven-day community design charrette process hosted by the Redevelopment Authority (RDA) of the City of La Crosse. By employing this week-long, highly collaborative community design process, the master reuse plan reflects the values and priorities of key stakeholders and the broader community while simultaneously responding to a myriad of environmental, social, cultural, and economic forces.

Figure 1. 2012 Aerial photo of site

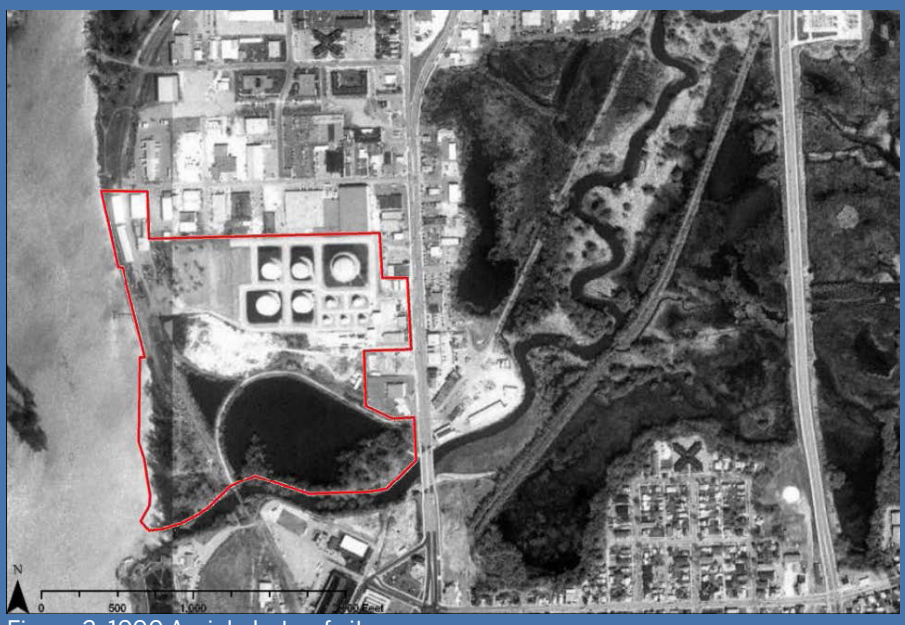


Figure 2. 1990 Aerial photo of site

Figure 3. 1867 Aerial illustration of La Crosse

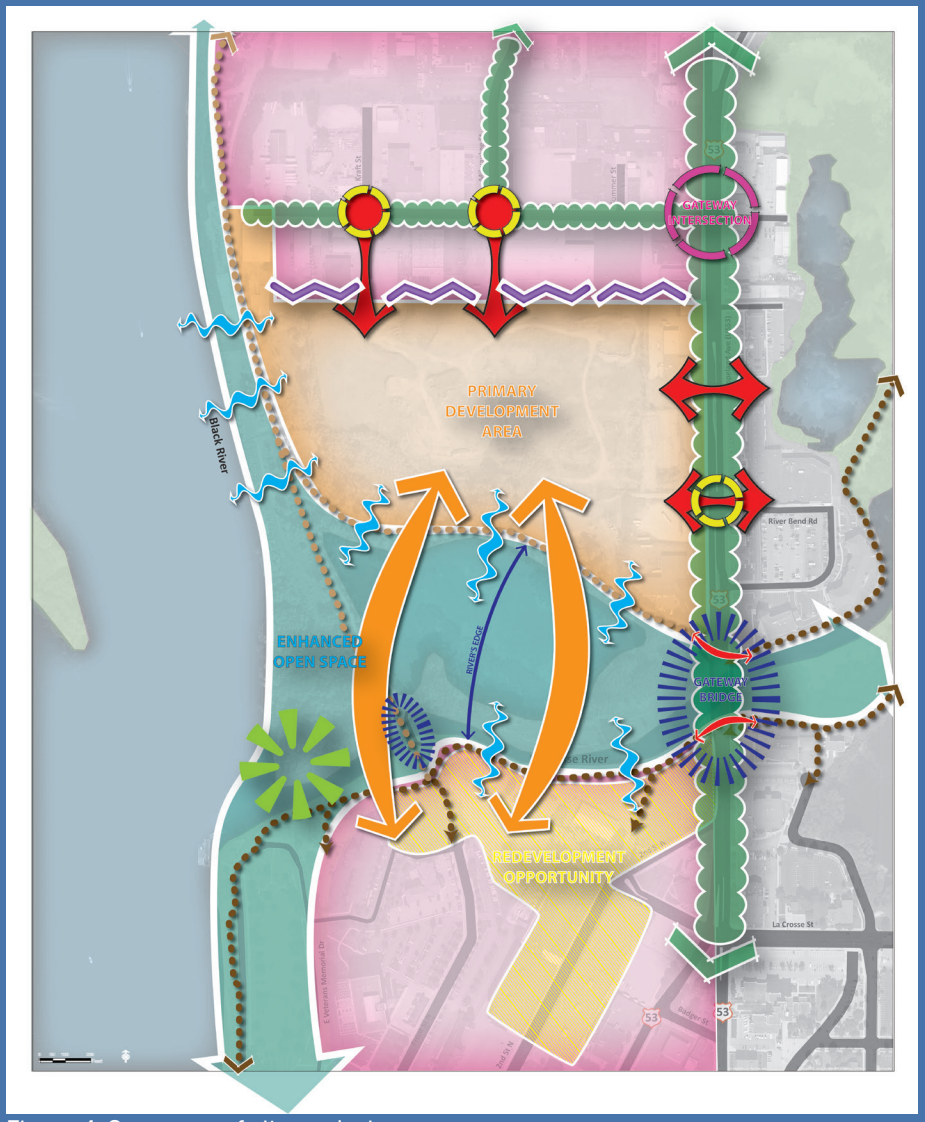


Figure 4. Summary of site analysis

Due to its strategic downtown riverfront location, the site possesses a rich and extensive history dating back to the city's early days as a hub for river related commerce and industry, including the 1870 tragic fire and sinking of the War Eagle riverboat. The Redevelopment Authority has spent over 15 years acquiring and remediating the three primary former industrial properties in the project area and raising the site above the 100-year flood plain elevation.

In addition to its former industrial uses, the redevelopment site also includes a large wetland complex (former La Crosse River oxbow) as well as forested wetlands along the river banks. These areas serve as important habitat for a wide number of species and provide lush green and blue features for recreation and nature observation.

A former rail bridge connects the project site across the La Crosse River via new multi-use trails to historic Riverside Park, hotels, restaurants, seasonal festival grounds and other downtown riverfront development.

The site provides a unique development opportunity, combining direct connections to an attractive, vibrant, walkable downtown business district together with access and views to the Mississippi River, a major international migratory flyway and one of the recognized natural wonders of the world.

In respecting the City's extensive investment, and the site's unique assets, eight key goals were established for the project:

Goals

G2. Broad community support
The voice of the community as part of the development process is imperative to the project's success.

G3. Economically feasible
Acquisition, demolition, remediation, and infrastructure costs are higher for redevelopment sites. Taxable development must be sufficient to pay for these higher up-front costs, and the proposed development must be realistic and marketable to the private sector.

G4. Long term development
Cities like La Crosse rarely have a chance to redevelop 65 acres in the heart of the City. It took more than 30 years to acquire the land for this project and the City must ensure that the development is not disposable in the next 30 years, but rather a project that will endure and stand the test of time for several generations (more than 75 years).

Figure 5. Precedent images illustrating the goals

Figure 6. Mile radius around project site


Figure 7. Looking out into the confluence

G5. River, open space, environment
"Design with Nature" as legendary landscape architect, Ian McHarg taught and practiced. The waterfront must be in public ownership and not be a sliver of land but a substantial swath of public space. With one-half of the site in the floodway, wetlands and riparian shoreline, the redevelopment must preserve, enhance and protect all living things.

G6. Sustainability, connections and linkages
Redeveloping a brownfield site and developing in the City are already sustainable practices, but we can do more. This project needs to find the opportunities to push the envelope on environmental design to weave both the built and vast natural amenities on this site together. This site is the connection to Riverside Park and Historic Downtown La Crosse from the north, it links the north and south sides of the La Crosse River to the downtown and to neighborhoods and jobs. Most importantly, the redevelopment of this site links the community to the confluence of the Black, La Crosse, and Mississippi Rivers.

G7. Inspire investment
This opportunity comes once in a City's history and that alone should inspire investment. With an impressive community investment in public open space and amenities, the private sector will be excited about having opportunities for public/private partnerships and leveraging and fostering long term investments in the site's redevelopment.

G8. Internationally significant
There are few sites on the Mississippi River with this majestic setting; where three rivers meet. The community must think boldly about the scale and scope of the development and be constantly reminded that this development will serve the City of La Crosse and the region for many years to come.

Community-based Design Process

The Planning and Development Department Project managed planning design for the City and also served as the staff of the Redevelopment Authority. Additional City staff from multiple departments (Parks, Public Works, Engineering, etc.) participated as a technical committee, while RDA members and additional community stakeholders served as a project steering committee, providing overall guidance to consultants and staff (Project Design Team) over the course of the 9-month charrette-centered master planning process. The committees and project design team collaborated with additional area stakeholders and interested citizens through three consecutive project phases: 1. Pre-Charrette; 2. Charrette; and 3.Post-Charrette.

As expressed in the key project goals, providing meaningful opportunities for citizens to get involved in the planning process was critical to preparing a plan rooted in the culture and heritage of La Crosse. Between the project web site, topical lectures and discussions, focus groups, and charrette activities, several hundred community members participated in programming, planning, and designing the Master Plan for Riverside North. This inclusive, interactive design process helped build strong community support for the project's site specific, environmentally sensitive design.

Figure 8. Public engagement

Master Plan Highlights

Figure 9. Public engagement

Figure 10. Master Plan

Figure 11. The districts

Figure 12. String of pearls

Overall, the Master Plan establishes a comprehensive framework for public open spaces—a mix of civic, recreational, residential, and commercial uses; pedestrian and vehicular circulation and parking; development blocks and building types as well as conceptual plans, public infrastructure, phasing, and rezoning. In addition to a site design for the +65 acre Mobile/ Patros site, the Master Plan also suggests a new configuration for an expanded civic festival grounds along the south bank of the La Crosse River. Taken together with the existing Riverside Park, International Gardens and La Crosse Marsh, the overall Master Plan illustrates the potential for linking all of the natural assets within this area of the City together as an interconnected open space system with blue and green trails, restored habitat, and enhanced ecological function.

One of the key drivers for the layout of the proposed neighborhood were the +30 acres of open and forested wetlands and extensive riverfront shorelines. This is achieved through the alignment of a new multimodal parkway and the introduction of three linear ecological extensions or “green fingers” up into the new redevelopment. As a formalized edge, the parkway provide physical and visual access to the sites environmental riches for residents and visitors alike.

The green fingers extend these viewsheds while also providing areas for stormwater management and more intimate scaled passive and active green spaces for residents.

The plan proposes three districts with a range of uses: The North Pier, The Oxbow and The Avenue. Each district fronts along one for the three green fingers as well as the new parkway. The North Pier includes a mix of 3- and 4-story loft and stacked flat residential buildings along with waterfront commercial space. The Oxbow includes a wide mix of multifamily residential building types from larger 3-story stacked flats, row houses, and mansion apartments to apartment homes in 2- and 3-story and 4- and 6-pack configurations. The Avenue fronts US 53/Copeland Avenue, a primary arterial connecting downtown to I-90. It includes a mix of 3-story stacked flat, vertically integrated mixed use and single story commercial buildings.

Proposed development intensity is expected to range between approximately 400 to 500 homes and 27,000 to 40,000 square feet of commercial space. Its anticipated that the neighborhood will be built in multiple phases over a seven to ten year period.

Figure 13. The North Pier District

Figure 14. "Green Fingers" of the Oxbow and Avenue Districts

Figure 15. Proposed neighborhood street

Figure 16. Train trestle reimagined

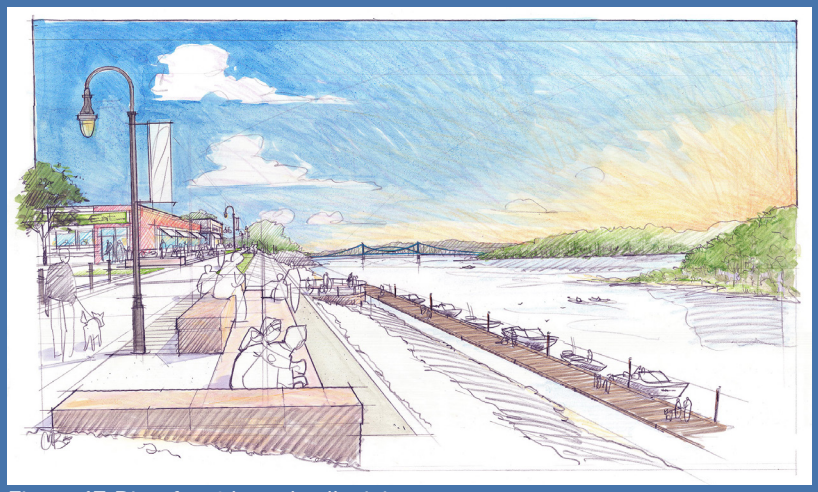


Figure 17. Riverfront boardwalk vision

COMMUNITY ENGAGEMENT

Preparation of the Riverside North Master Plan was truly a community effort. The nine-month planning process builds upon significant past planning efforts including the 2002 Comprehensive Plan and the 2004 City Vision 2020 Plan, each of which involved extensive community engagement programs and considered the future of the +65-acre Riverside North project site. The cornerstone of the community engagement process was the use of the National Charrette Institute's (NCI's) seven-day community design charrette: a highly-organized, interactive process where community members and professional design consultants work collaboratively to analyze, design, evaluate and refine solutions for improving the future of their community.

The NCI project delivery process brings a high degree of organizational rigor to community engagement with a strong focus on providing multiple opportunities for community members, decision makers (usually elected officials) and design team members (planners, scientists, landscape architects, engineers) to work closely together, considering aspects of the project in a holistic manner, over a compressed period of time (five to 10 days) in the development of a desired outcome (typically a site design or Master Plan).

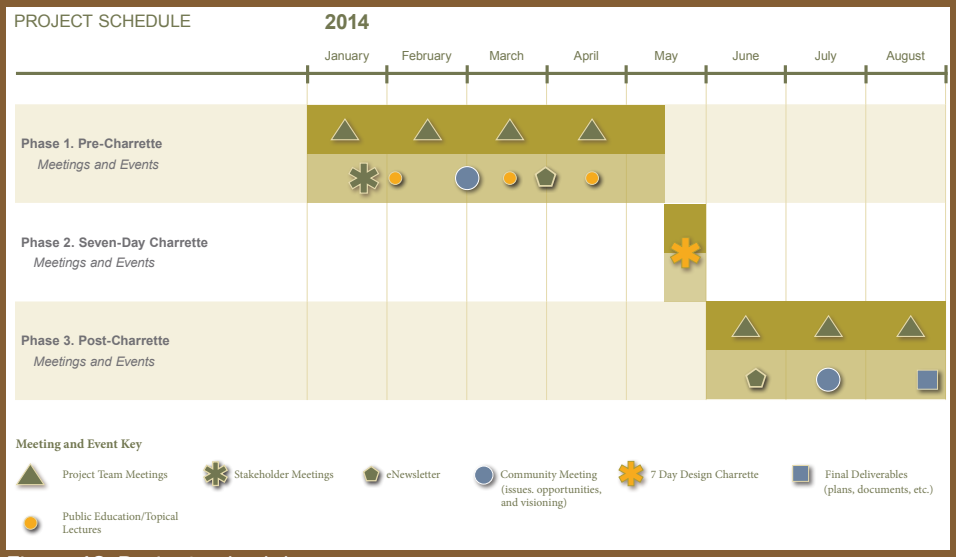


Figure 18. Project schedule

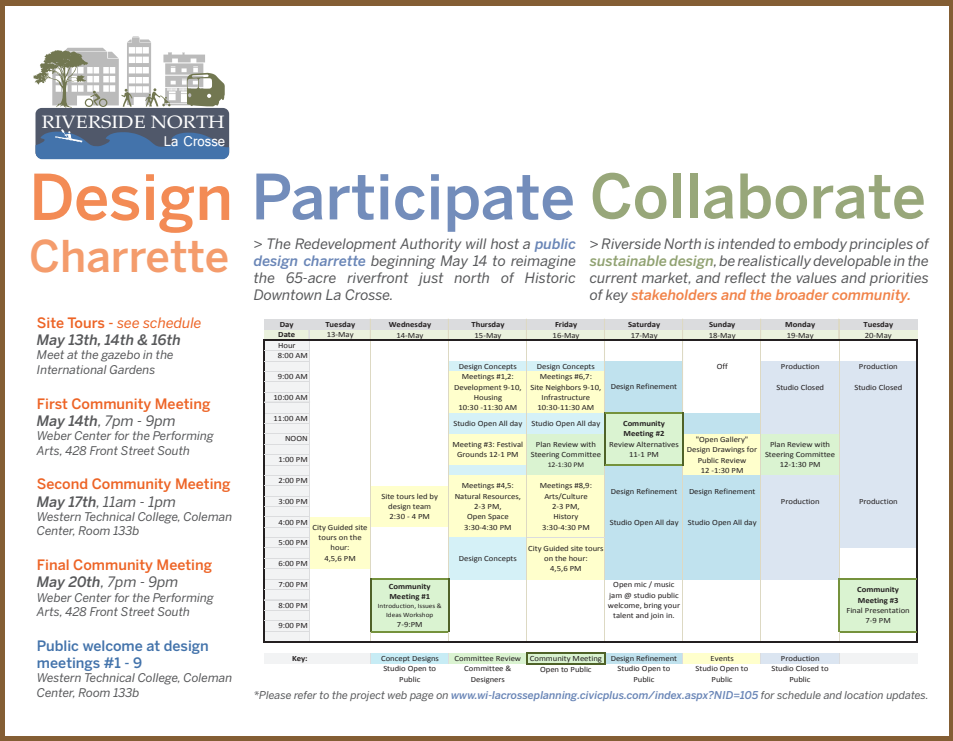


Figure 19. Flyer distributed throughout the City

Figure 20. Action shots during the charrette

Rather than the typical design process where aspects of a project are discussed, developed, debated, redesigned, and redebated over months of successive meetings, the more compressed and highly inclusive NCI charrette-based project establishes an organizational plan where project participants commit to working closely together in public, over a relatively short period of time, focusing their efforts on applying a set of agreed upon principles or methods to achieving an agreed upon set of goals, with the actual form of the outcome to be determined together over the course of the charrette's time frame. This allows for multiple ideas to be considered, developed, evaluated, and synthesized simultaneously and transparently into a plan that best meets the project goals. It also allows many hands to create the plan, building a broad base of support for the project.

Seven RDA members and eight additional community stakeholders from organizations such Downtown Mainstreet and City of La Crosse Arts Board, served as the 15-member project Steering Committee to provide guidance to consultants and staff (project design team) over the course of the project. Nine Steering Committee meetings were conducted over the course of the project.

Pre-Charrette phase engagement activities included:

- A project web page where visitors could learn about the project, find out when and where project related events were taking place, review project documents and post questions.
- The project team conducted news conferences, including interviews with current and previous mayors.
- The project team conducted Focus group sessions with groups ranging in size from twelve to two on the topics of economic development, heritage preservation, housing nonprofits, development and land use, outdoor recreation, environmental regulation, environmental stewardship, philanthropy, transportation and infrastructure, the arts and culture.
- Project team members facilitated a project-related land use planning game called "Mixopoly" with seventh grade students at Lincoln Middle School.
- The project team conducted three topical community presentations/ discussions on the topics of Redevelopment in La Crosse and Introduction to a Design Charrette; Waterfront Redevelopment; Site Ecology and Light Imprint Stormwater Management. Over 150 people attended these events which were held at Western Technical College in downtown La Crosse.
- City staff conducted public tours of the project site to introduce community members to the background and site specific issues and opportunities.

Figure 21. Mixopoly with students and steering committee

Figure 22. Project web site

Figure 23. Welcome poster for Community Meeting #1

Figure 24. Public meetings, "Mixopoly," and site tours

Seven-Day Charrette engagement activities included:

- River boat tour on the Black and Mississippi Rivers with project team and Steering Committee.
- Initial community kick-off presentation on project background findings followed by “Mixopoly” game session and small group issues and opportunities discussions.
- Additional guided site tour.
- Two project Steering Committee meetings.
- Second round of topical focus group meetings (eight total).
- Second community meeting with presentation and discussion of initial conceptual design alternatives and establishment of guiding principles.
- Open design studio and open design gallery for public review and input on design refinements.
- Third community meeting with final design presentation and discussion.

Post-Charrette engagement activities included:

- Updates to project website.
- Final project Steering Committee meeting.
- Community open house.
- Formal public hearing on adoption of project Master Plan.

Community Concerns

Issues and ideas expressed by community members during the pre-charrette phase of the project covered the following areas:

Downtown

- Strengthen connections to downtown.
- Compliment/extend downtown.

Surrounding Neighborhoods

- Connect site to surrounding community and habitat corridors with open space elements like trails, linear parks, overlooks, and blue trails.
- Be mindful of traffic impacts to neighboring properties

Redevelopment Design

- Focus on multifamily, higher density residential development—maximize tax base, not commercial or office; rental may move better than ownership.
- Provide for a mix of demographics, not just one niche.
- Support for taking a longer term approach, do it right vs. building everything all at once.
- Leverage War Eagle history, rivers, and naturalized open spaces.
- Avoid artificial, historicist design.
- Create a sustainable, functional neighborhood, not just a development/project.
- Restore and increase functional values of wetland on site by removing invasive species, infiltrating stormwater within redeveloped area, and creating connections to the Black and La Crosse Rivers.
- Be sure to interpret the natural, historical, cultural and technological aspects of the site and its redevelopment to the public.
- Consider a Complete Streets approach to Copeland Avenue to make it more pedestrian and bike friendly and serve as a gateway to the downtown.

Figure 25. Receiving feedback from the community










Figure 26. Inspiration for Design Principles

Guiding Design Principles

Through the public process, the project team developed a series of guiding design principles with assistance from the Steering Committee to serve as guideposts for shaping the design of Riverside North:

1. **Celebrate the Spirit of Place** – Employ place making principles to create an identifiable sense of place

   Consider:
   - Public art
   - Culture
   - Urban design
   - Contextually responsible building design
   - Recognizable center

2. **Embrace the Confluence of Rivers** – Connect the site to the rivers and the rivers to the site.
   - Physical
   - Cultural/historic
   - Social
   - Environmental

3. **Promote Community Well Being** – Elevate community well being, happiness and social awareness through a variety of environmentally responsible programs and spaces.
   - Passive and active
   - Natural and urban
   - Civic
   - Educational and interpretive
   - Dry and wet

4. **Address the Edges** – Respect the diversity of site edge conditions.
    - Copeland Avenue Corridor
    - Rivers
    - Causeway Boulevard Light Industrial
    - Riverside Park Area (south of La Crosse River)

5. **Provide Connections** – Place buildings and attractions along a walkable network of interconnecting streets and trails.
    - Green Complete Streets
    - Accessible green and blue trails
    - Transit access

6. **Find the Niche** – Achieve a mix of uses that leverage the uniqueness of Riverside North.
    - Complements Downtown and surrounding developments
    - A mix of uses that supports urban riverfront living
    - A mix of housing types to meet multigenerational needs
    - Recognizable center and edges
    - Able to meet daily needs on foot or bicycle
    - Economically viable in the long- and short-term (sustainable return on investment)

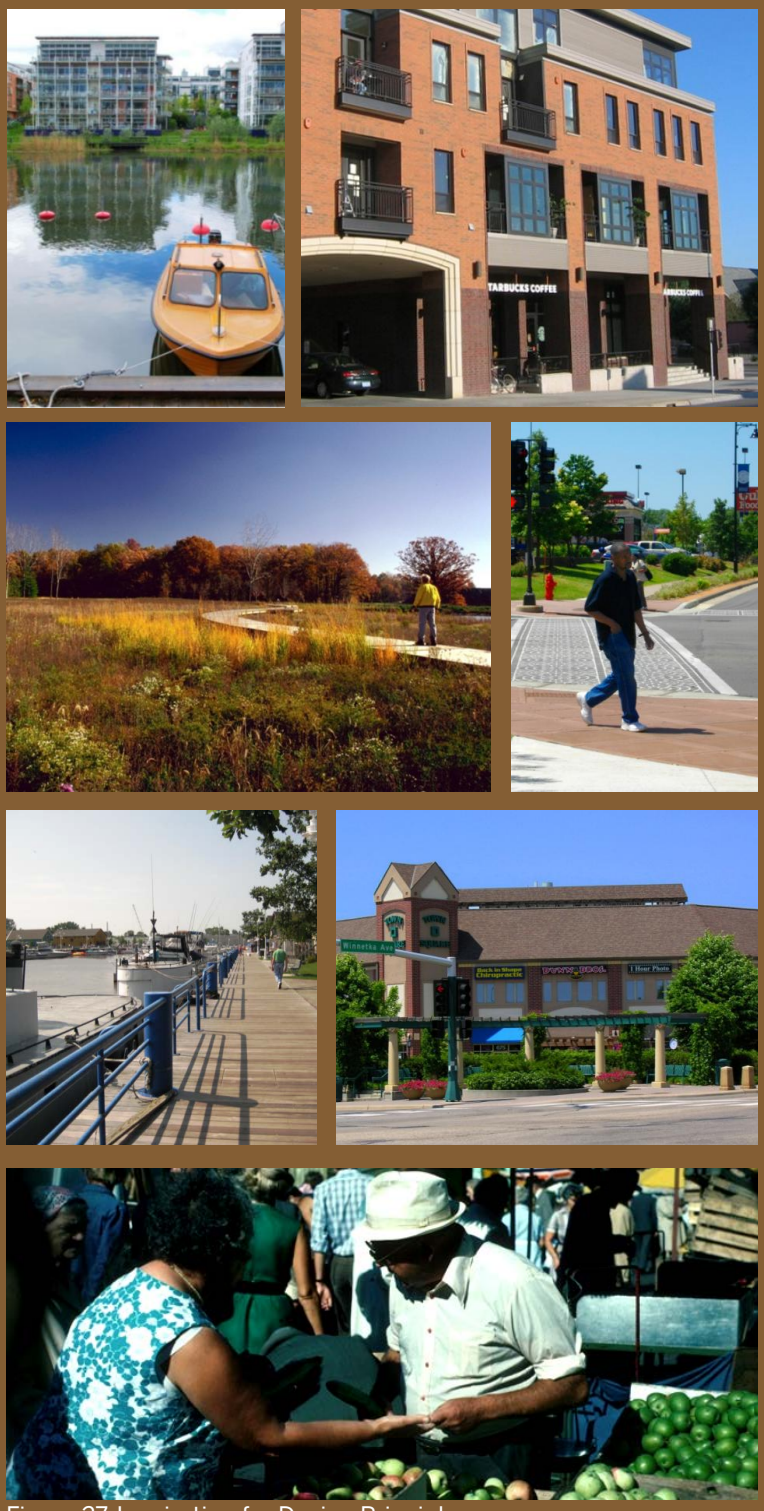


Figure 27. Inspiration for Design Principles

Figure 28. A continuum of engagement

7. **Promote Environmental Consciousness** – Utilize green development best practices.
    - Light Imprint/LEED-ND/Green Globes/Sustainable Sites
    - Healthy ecosystems
    - Clean technology
    - Healthy living
    - Education/interpretation

8. **A Continuum of Community Engagement** – Establish and maintain a collaborative process between community, developers, agencies, and City.
    - Before/during/after charrette
    - Pre-post-development structure
    - Enabling documents

9. **Achieve International Significance** – Create an innovative development befitting its internationally significant location.
    - Recognize confluence of Mississippi, Black and La Crosse Rivers
    - Rivers are defining features of the site
    - Leverage international visitation to the Mississippi River in La Crosse

10. **Embrace Resiliency** – Take the long-term view
    - Manage for change
    - Flexible, multi-use public spaces
    - Informal, unprogrammed activities
    - Build on community's commitment to environmental stewardship

OPPORTUNITIES AND CONSTRAINTS

Site Background Summary

The Riverside Redevelopment Site is situated at the confluence of three rivers (Mississippi, Black, and La Crosse), which are largely responsible for creating the region's landforms. Due to its strategic downtown riverfront location, the site possesses a rich and extensive history dating back to the City's early days as a hub for river related commerce and industry including the 1870 tragic fire and sinking of the War Eagle riverboat.

The RDA has spent over 15 years acquiring and remediating the three primary former industrial properties in the project area including raising the site above the 100-year flood plain elevation. The three main acquisitions to date include the former Western Wisconsin Ready Mix site (8.3 acres), the Exxon-Mobil Oil site, (25 acres), and the Patros Steel Supply site (11 acres).

In addition to its former industrial uses, the redevelopment site also includes a large wetland complex (historic La Crosse River oxbow and wooded river banks) and a former rail road right-of-way. These site areas serve as important habitat for a wide number of species and provide lush green and blue features for recreation and nature observation.

A former rail bridge connects the project site across the La Crosse River via new multi use trails to historic Riverside Park, hotels, restaurants, seasonal festival grounds and other downtown riverfront development.

Figure 29. Historic La Crosse photos

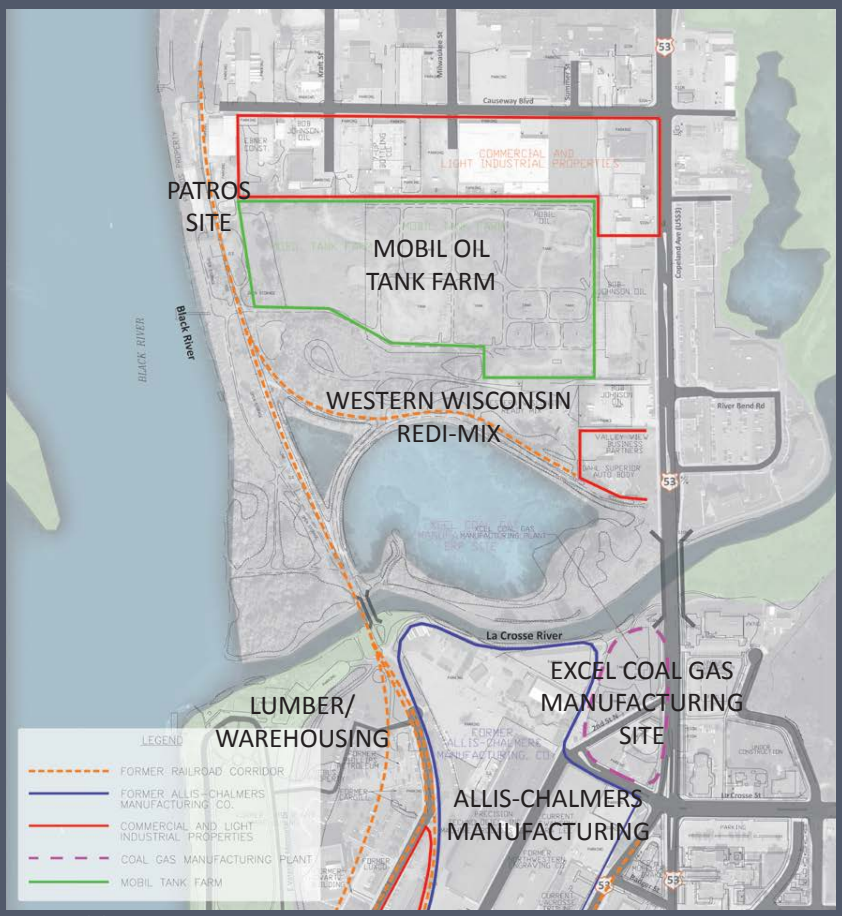


Figure 30. Former industrial uses

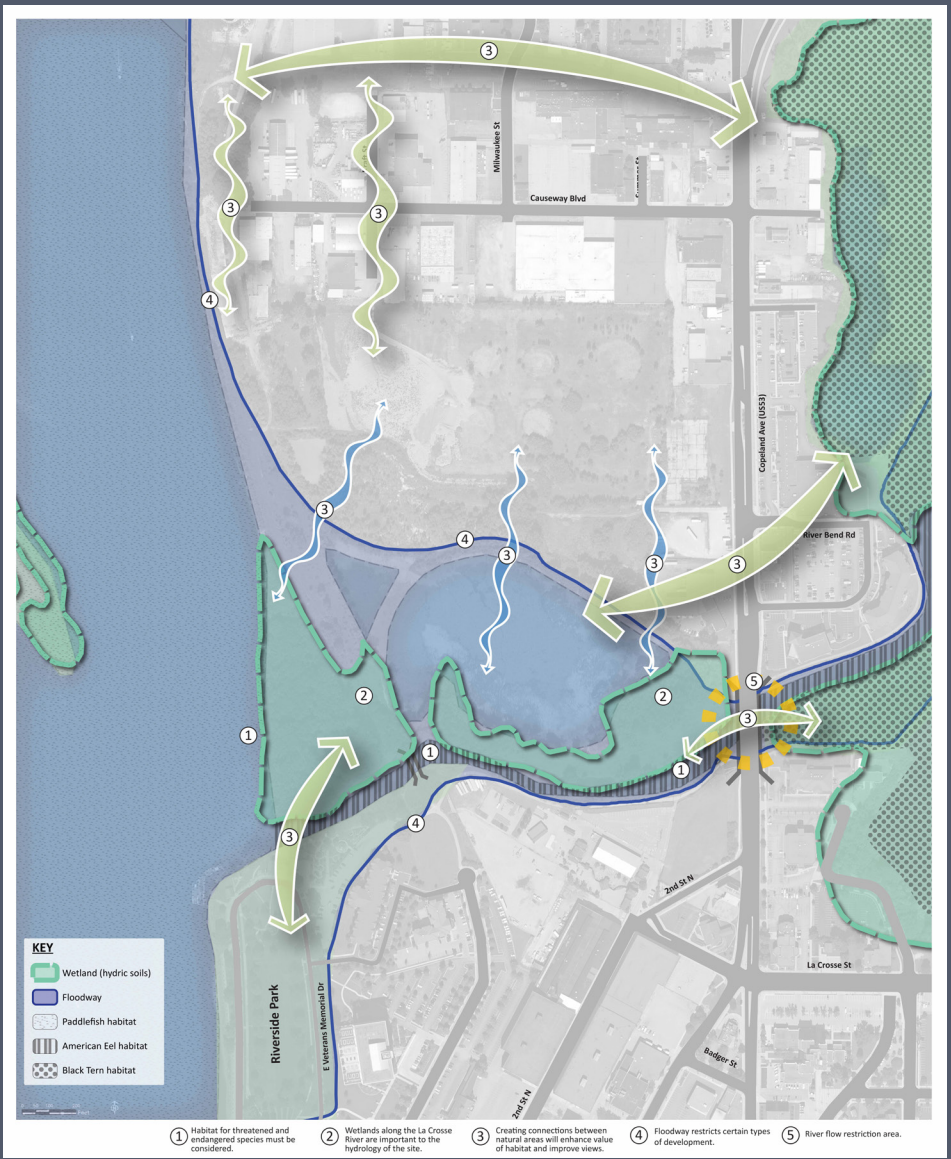


Figure 31. Natural resources analysis summary

Natural Resources

The site's southwest shore abuts the confluence of the Mississippi, Black, and La Crosse Rivers (Figure 31). These rivers are classified as Waters of the U.S. and are regulated by the state and federal government. The northern portion of the site currently consists of a disturbed/ irregular landscape undergoing active fill. A flood levee runs through the site, generally following a northwest to southeast alignment. Below this levee, drainage is generally to the south and west toward the site's wetlands and adjacent rivers.

A portion of the site experiences annual flooding due to the confluence of rivers and relatively low elevations. The southwest half of the site lies within the floodway (where flood waters experience significant flow), and most of the site's remainder (as well as surrounding areas) lies within the 100-year floodplain (Figure 32). The northern portion of the site is undergoing fill so that future development will occur two feet above of the 100-year floodplain. The site's water table is isostatic with the stage of surrounding rivers—it rises and falls as the adjacent river levels rise and fall.

As with other Waters of the U.S., wetlands are also regulated under state and federal laws. A formal wetland delineation has not been conducted for the site, but based on existing data and a preliminary site review, three distinct wetlands have been identified. The largest site wetland consists of an emergent wetland encompassing the southern third of the site. This wetland includes deep marsh to wet meadow to floodplain forest plant communities. One of the historical railroads tracks in this area has been removed from this wetland. A triangle-shaped area of floodplain forest wetland is located in the southwest corner of the site, abutting the three-river confluence. A smaller wetland is located northwest of the large emergent wetland. A damaged corrugated metal culvert was observed discharging into the north end of this smaller wetland; its source has not been confirmed. An outlet from this wetland or a connection to the large emergent wetland near to the south was not identified.

Site wetlands are maintained by both groundwater and surface water inputs. As a result, the maintenance of these connections will be imperative to protect these natural resources under any development scenario.

The site's floodplain forest is dominated by cottonwood trees (30-79 years of age), silver maple, and river birch. The large emergent wetland has transitional vegetation adjoining the uplands and includes native wetland species such as wool grass, sedges, and shrubs such as sandbar willow and buttonbush. The upland sandy soils contribute to the localized recharge of rainfall and snow melt, which supports the seepage zones at the edges of the site wetlands. This transitional zone also contains invasive plants, such as giant reed and reed canary grass. The large wetland's vegetation of emergent and submerged rooted aquatic plants is dominated by cattails but contains other species such as giant bur reed. Aquatic plants in the site's open waters include coontail and elodea among others.

Controlling invasive plant species is essential for ecological restoration to succeed. In addition, market premiums and price points will be improved with these investments in the amenity value, especially if the development is targeting informed, educated homebuyers and tenants.

The Riverside North Redevelopment site is a very unusual piece of property. Even during the peak of its industrial use, it supported state and federal special status wildlife species—Bell's Vireo, Henslow's Sparrows, Bald Eagle, among many others. Some of the habitats that attracted and supported these and

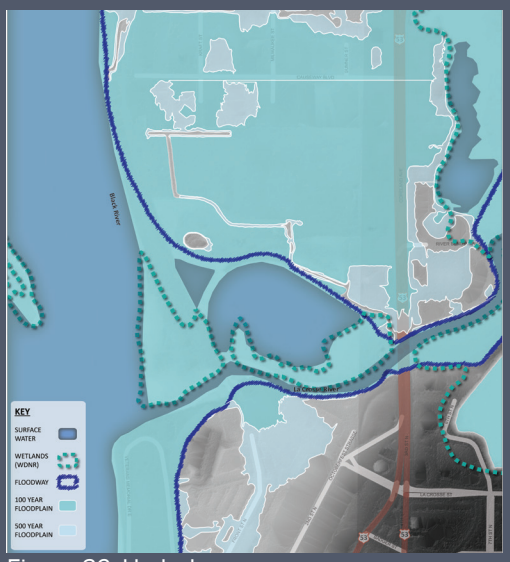


Figure 32. Hydrology

Figure 33. Vegetation

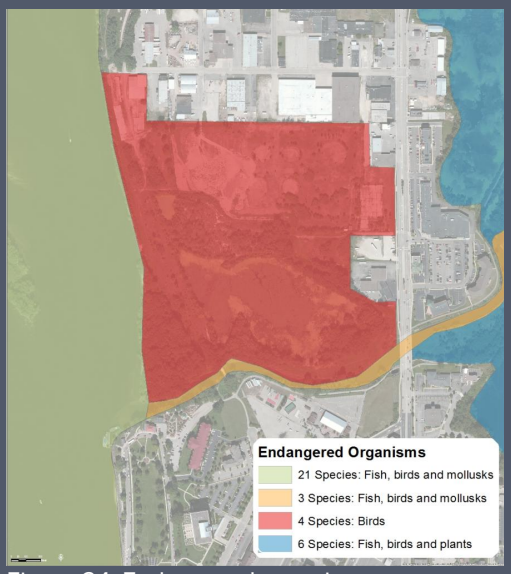


Figure 34. Endangered organisms

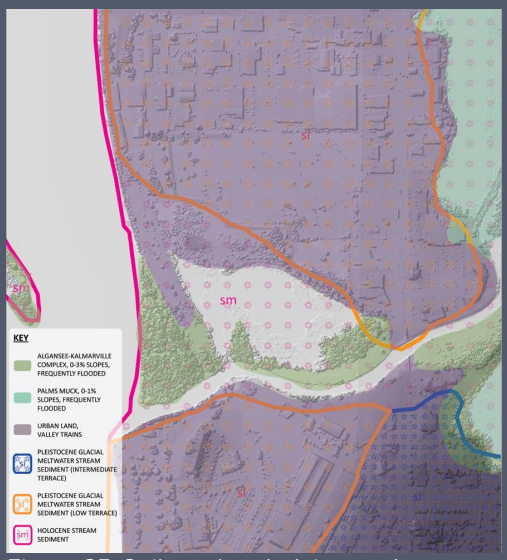


Figure 35. Soils and underlying geology

Figure 36. Views

Figure 37. Wildlife corridors


Figure 38. Shores of the La Crosse, Black, and Missisippi Rivers

other wildlife species are still present and can be enhanced as a part of site redevelopment.

Species of Greatest Conservation Need (SGCN) is a wildlife classification for regional conservation purposes. It includes state-listed species and non-listed species that are regionally rare or in decline, often as a result of habitat loss. Within the "Western Coulee and Ridges" Ecological Landscape, the Wisconsin Department of Natural Resources (WDNR) has identified 10 mammals that are SGCN species, 65 birds, 19 reptiles and amphibians, and 20 fish (WDNR 2012).

Establishing the site's natural areas as a refuge for certain SGCN species would be appropriate, given the site's regional location, significant size, existing rare species habitats, and enhancement and restoration potential. The existing and potential diversity of habitats at the site raises the likelihood that SGCN species use or could use the site. Ecological restoration and management of the site would be expected to attract some of the region's upland, wetland, and river-dependent SGCN species.

*A more extensive, detailed assessment of natural resources prepared by Applied Ecological Services can be found in the Appendix.

Cultural Resources

In the mid-to-late-1800s portions of the Riverside North Site included maritime and rail facilities for the commercial transport of raw and finished material and goods. The project site is most notable for the unfortunate fire and sinking of the War Eagle. The War Eagle was a 296-ton, side-wheel riverboat built in Fulton, Ohio in 1854. During the Civil War, the War Eagle was used to transport troops and supplies from Minnesota across the river where they were loaded on trains bound for Washington D.C.

Following the war, the ship was placed back into commercial service. On the night of May 14th, 1870, while docked at the Milwaukee Road Railroad Depot in La Crosse the War Eagle accidentally caught fire. By the time the fire was out, the War Eagle, depot, warehouses, dock, sheds, and grain elevators had been destroyed along with a nearby barge. While there isn't an exact count of passengers and crew that perished due to the fire, it's believed that remains of several people lie with the wreckage. Remnants of the ship have been mapped and the area is a cataloged burial site and state registered historic site.

A second area of archeological significance is located to the south of the War Eagle site, called the Peavey Site, which a small number of stone flakes (Pre-Settlement) and a peavey, or a lumber pike (Early settlement) were discovered. Buried artifacts notwithstanding, no historic standing structures are present on site.

The site's rich history provides a wealth of opportunity for preservation, interpretation, and placemaking.

Figure 39. Bliss Spear map from 1859


Figure 40. City of La Crosse circa 1867

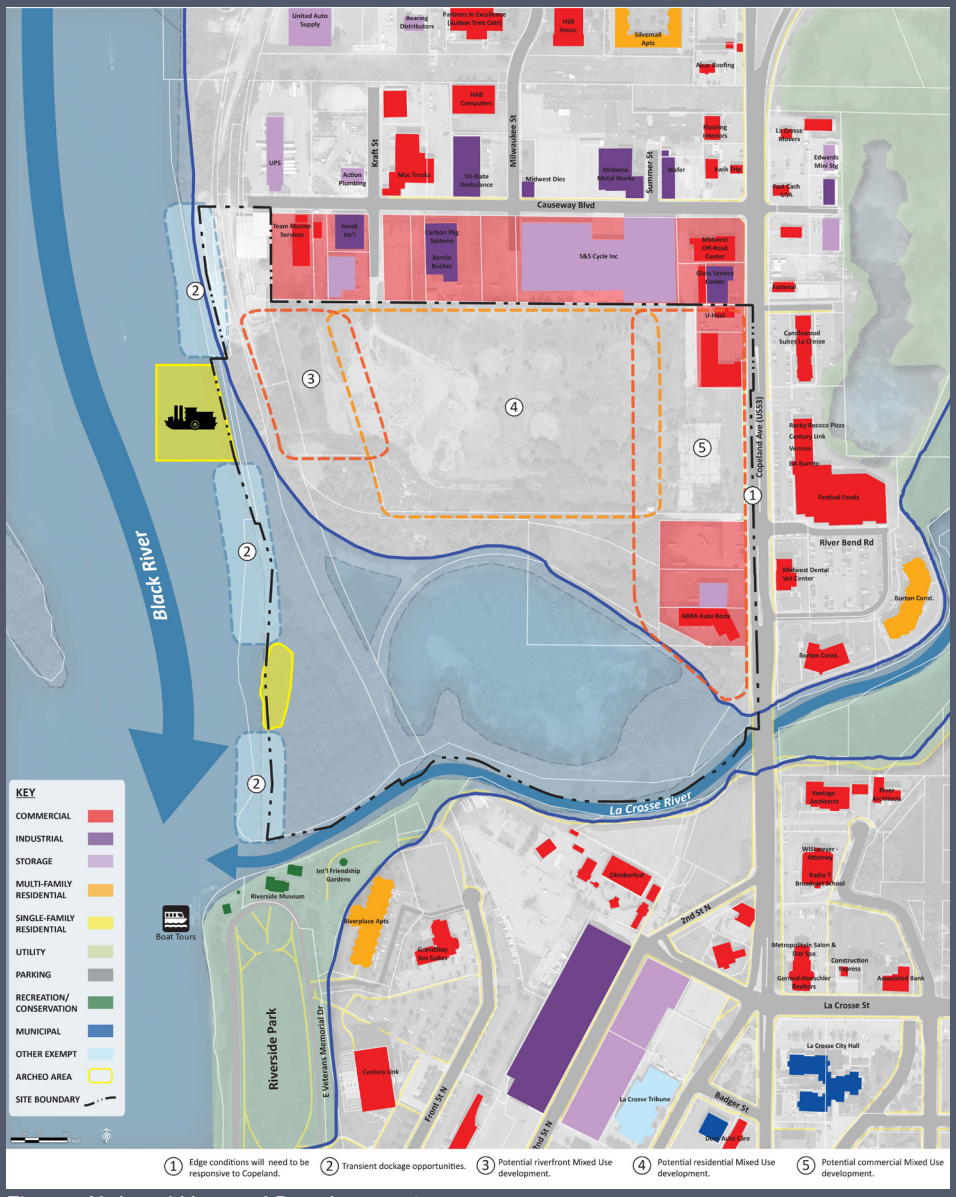


Figure 41. Land Use and Development summary

Land Use and Zoning

Currently, the majority of the site is used as Industrial use along with several small Commercial and Storage designated parcels along Copeland Avenue Actual uses include wetland, grassland and forested open space; cleared post industrial lands undergoing filling; and commercial enterprises (active and vacant) situated along the west side of Copeland Avenue. The majority of the site is currently zoned as Planned Development (PD), Light (LI) and Heavy Industrial (HI), Floodway and Shoreland-Wetland. It's expected that the buildable areas of the site (PD, HI, LI) site will be rezoned as a part of the redevelopment process. Future zoning district designations and related parameters will be recommended as a part of the master planning process.

Built Infrastructure

Roadways and Vehicle Access

US 53/Copeland Avenue

The Site is bound on the east by United States Highway 53 (US 53), also known as Copeland Avenue/US 53 is a north–south US highway that runs for 403 miles from La Crosse, Wisconsin to northern Minnesota. It is the primary north-south route in northwestern Wisconsin, serving as a vital link between I-94 at Eau Claire, Wisconsin and the City of Duluth, Minnesota. The entire route from Eau Claire to the City limits of Superior, Wisconsin is a four-lane divided highway. The highway's northern terminus is at the Fort Frances-International Falls Bridge in International Falls, Minnesota, at the U.S.-Canadian border. Its southern terminus is in La Crosse, Wisconsin, at US 14. In La Crosse, US 53 begins with a junction at US 14, US 61, and WIS 16 in downtown La Crosse. From there, US 53 crosses I-90 and becomes a freeway bypass of Onalaska and Holmen before proceeding north to Eau Claire.

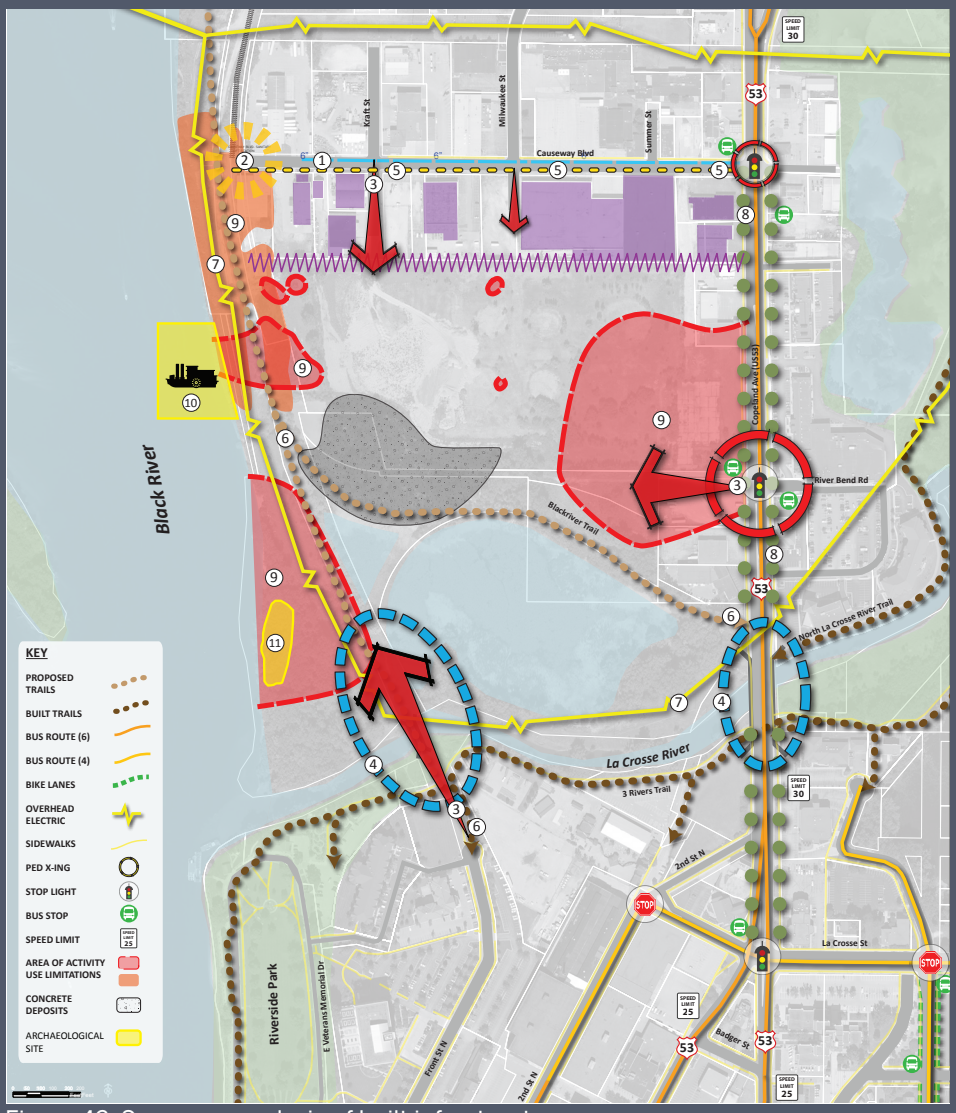


Figure 42. Summary analysis of built infrastructure

Existing traffic signals are located at River Bend Road and Copeland Avenue (near Festival Foods) and Causeway Boulevard and Copeland Avenue. There is a two-way left turn lane (TWTL) on the north side from Causeway Boulevard to 450 feet to the south. The road then becomes divided by a median with several median openings.

There is a southbound left turn only median opening approximately 600 feet south of Causeway Boulevard into a commercial development. The next break is at the River Bend Road intersection. Then the there is a TWTL from the southern entrance of the Festival Foods development to the south. There is an existing dedicated left turn lane to the Site at River Bend Road into the Site. However, the turn lane is currently closed due to lack of need/access to the Site.

Figure 43. Vehicle circulation and parking

Local Streets

On the north side of the site, Milwaukee St and Kraft Street which run north/south, dead-end at this location. On the east side, there is an access road to the site across from River Bend Road. There is also driveway opening to the Site approximately 300 feet north of that. The Site has no existing internal street network.

Parking

There is no vehicle parking along Copeland Avenue and there is no existing parking within the project site. There is on-street vehicle parking along Causeway Boulevard, Kraft Street, and Milwaukee Street on the north side of the Site.

There are also several large parking lots associated with businesses near the site, including:

- Festival Foods development – Approximately 400 spaces
- Candelwood Suites – Approximately 119 spaces
- Fastenal – Approximately 27 spaces
- Midwest Off Road Center – Approximately 31 spaces
- South of the Site – Approximately 200-300 spaces (between Front Street and 2nd Avenue)

Pedestrians

Sidewalks are present on both sides of Copeland Avenue and on the north side of Causeway Boulevard. There are no existing sidewalks on Kraft Street or Milwaukee Street on the north side of the site. Existing marked cross walks are located at the Causeway Boulevard/Copeland Avenue intersection and River Bend Road/Copeland Avenue intersection (near Festival Foods). The Site has no existing internal pedestrian paths or sidewalks.

Bicycles

Existing

There are no existing bike lanes or shared bike lane markings on Copeland Avenue or any of the side streets on the north side of the Site. There are no existing bicycle racks/parking on Copeland Avenue or adjacent local streets.

Figure 44. Non-motorized and public transportation

Future & Proposed

The City of La Crosse Bicycle and Pedestrian Master Plan (2012) proposes a future bike lane on Copeland Avenue. The plan also proposes two new paved shared use paths through the Site:

- New north/south paved shared use path proposed for the western edge of the Site. It would use the former rail line and connect to the Three Rivers State Trail to the south of the Site via Front Street.
- New east/west paved shared use path that would start directly across from River Bend Road and extend west through the Site to connect to the proposed north/south path.

Trails

The Three Rivers Trail is located to the south of the site. It is a paved multi-use trail that runs along the south side of the La Crosse River.

A trail also runs along the south side of the Festival Foods development. Its southern terminus is Copeland Avenue. The northern terminus is Monitor Street.

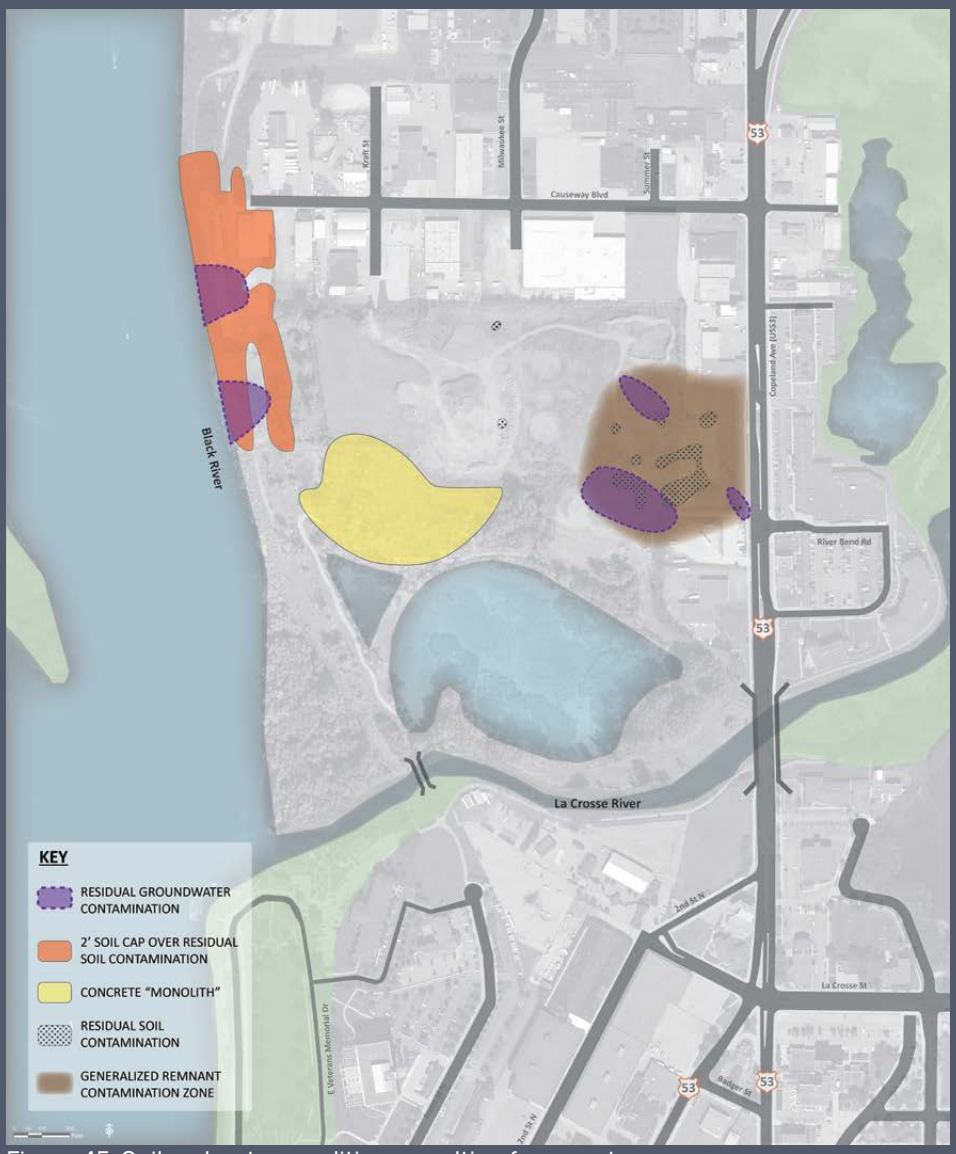


Figure 45. Soil and water conditions resulting from past uses

Transit/Bus

Bus route 6 runs along Copeland Avenue and terminates at the Downtown La Crosse Transit Center, south of the site. To the north, it travels up to I-90, passing through the Clinton/ Caledonia Transfer Point.

There are four bus stops near the Site on Copeland Avenue. Two stops (one in each direction) are located at the River Bend Road/ Copeland Avenue intersection (near Festival Foods) and two stops are located near the Causeway Boulevard/Copeland Avenue intersection.

Surface Conditions

Portions of the (uplands) site area have been receiving fill as a part of site remediation activities. These filling operations are bringing the areas above the 100-year flood elevation. Other site areas remain within the 100-year flood plain and will need to be raised from its current elevation to approximately two feet above the 100-year floodplain elevation to an elevation of 646. Adjacent streets currently lie below this elevation and will also need to be raised up out of the 100-year floodplain in the future.

Utilities

Subsurface

Copeland Boulevard, Causeway Boulevard and Kraft Street currently contain public water main, sanitary and storm sewer facilities and serve adjacent buildings. A sanitary sewer force main runs along the western river side of the site with a lift station at the western end of Causeway Boulevard Water service in Causeway Boulevard has been identified by the City as being undersized and in need of upgrading in the future.

Copeland Boulevard: 10" water main; 8" sanitary sewer, 36"-48" storm sewer.

Causeway Boulevard: 6" water main; 8" sanitary sewer; 18"-42" storm sewer.

Kraft Street: 6" water main; 8" sanitary.

Overhead

Overhead electrical transmission and service lines run along the western and southern (riverside) boundaries of the site.

Figure 46. Utilities

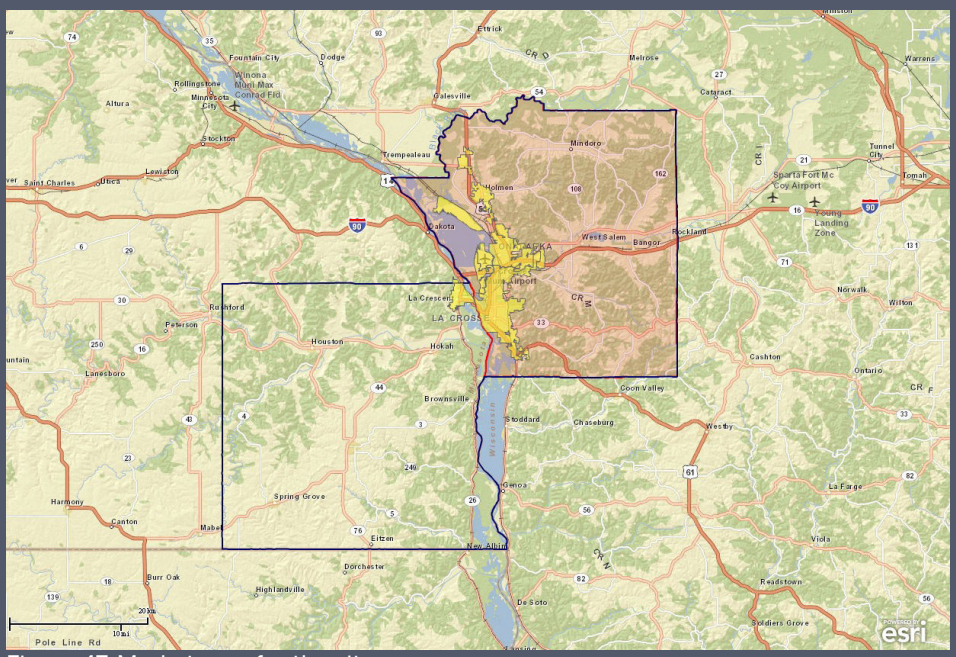


Figure 47. Market area for the site

POPULATION GROWTH TRENDS AND PROJECTIONS
MARKET AREA
2000-2030

	Population				Change					
	Census		Projection		2000-2010		2010-2020		2020-2030	
	2000	2010	2020	2030	No.	Pct.	No.	Pct.	No.	Pct.
Population										
La Crosse, WI	52,056	51,320	52,550	53,306	-736	-1.4	1,230	2.4	756	1.4
Brice Prairie CDP, WI	1,804	1,887	2,070	2,258	83	4.6	183	9.7	188	9.1
French Island CDP, WI	4,318	4,207	4,334	4,478	-111	-2.6	127	3.0	144	3.3
Holmen, WI	6,590	9,005	10,560	12,120	2,415	36.6	1,555	17.3	1,560	14.8
La Crescent, MN	4,885	4,830	4,566	4,300	-55	-1.1	-264	-5.5	-266	-5.8
Onalaska, WI	15,533	17,736	19,860	21,950	2,203	14.2	2,124	12.0	2,090	10.5
Market Area Total	**85,186**	**88,985**	**93,939**	**98,411**	**3,799**	**4.5**	**4,954**	**5.6**	**4,472**	**4.8**
La Crosse MSA	*126,838*	*133,665*	*141,327*	*149,007*	**6,827**	**5.4**	**7,662**	**5.7**	**7,680**	**5.4**

Sources: U.S. Census, ESRI, WI Demographic Service Center, Maxfield Research Inc.

Table 1. Population growth trends and projections

HOUSEHOLD GROWTH TRENDS AND PROJECTIONS
MARKET AREA
2000 - 2030

	Households				Change					
			Projection		2000 - 2010		2010 - 2020		2020-2030	
	2000	2010	2020	2030	No.	Pct.	No.	Pct.	No.	Pct.
Households										
La Crosse, WI	21,174	21,428	24,374	24,956	254	1.2	2,946	13.7	582	2.4
Brice Prairie CDP, WI	654	704	783	868	50	7.6	79	11.3	84	10.8
French Island CDP, WI	1,716	1,874	1,977	2,081	158	9.2	103	5.5	104	5.2
Holmen, WI	2,420	3,400	4,058	4,731	980	40.5	658	19.4	672	16.6
La Crescent, MN	1,931	2,012	1,961	1,896	81	4.2	-51	-2.5	-65	-3.3
Onalaska, WI	6,128	7,331	8,359	9,317	1,203	19.6	1,028	14.0	958	11.5
Market Area Total	**34,023**	**36,749**	**41,513**	**43,848**	**2,726**	**8.0**	**4,764**	**13.0**	**2,335**	**5.6**
La Crosse MSA	*49,232*	*53,986*	*57,851*	*61,741*						

Sources: U.S. Census, Maxfield Research Inc.

Table 2. Household growth trends and projections

Market Assessment

A market assessment looked at growth trends and demographic characteristics for the Greater La Crosse Area that would impact the potential demand for residential, commercial and public uses on the Riverside North property. The Market Area (or draw area) examined for the assessment includes the Cities of La Crosse, Holmen, Onalaska, French Island CDP (Census Designated Place), Brice Prairie CDP, Wisconsin, and La Crescent, Minnesota. The draw area included data that was evaluated from these communities in addition to La Crosse County, Wisconsin and the La Crosse Metropolitan Statistical Area (MSA). A map of the areas is shown to the left with the greater La Crosse Area shaded orange, the La Crosse MSA outlined in blue and the Market Area shaded yellow.

Population

Demographic trends reveal that the population of the Market Area increased by 3,800 people or 4.5% from 2000 to 2010. Most of the population growth that occurred during the 2000s was in Holmen and Onalaska, two rapidly growing communities in the La Crosse area. Some of the reasons for this rapid growth include a preference by families for schools in those areas as well as a greater amount of land available for new residential development. Conversely, La Crosse City lost population

during this period (-736 people), primarily a result of an increase in smaller household sizes and limited land available for new housing development.

Projections indicate that the population will continue to grow in the Market Area over this next decade at a slightly higher rate than during the 2000s. New student apartments and other multifamily and redevelopment sites are slated to bring new housing to the City of La Crosse. Growth in the outlying communities of Onalaska and Holmen is also projected to continue, but at a slightly slower rate than in the previous decade.

In 2010, the Market Area had 88,985 people, representing an increase of 3,799 people or 4.5% since 2000. In this same time period, Holmen and Onalaska experienced rapid growth compared to the Market Area as a whole, adding 2,415 people (36.6%) and 2,203 people (14.2%), respectively.

Population growth in the Market Area is projected to be slightly higher between 2010 and 2020 than during the previous decade, adding 4,954 people (5.6%). By 2030, another 4,472 people (4.8%) growth is projected. La Crosse is projected to grow by 1,230 people (2.4%) by 2020 and 756 people (1.4%) by 2030. All other cities in the Market Area are expected to grow except La Crescent which is expected to continue decreasing in population through 2030.

PROJECTED AGE DISTRIBUTION
MARKET AREA
2000-2030

	U.S. Census	Forecast		Change 2010-2020		Change 2010-2030	
Age	2010	2020	2030	No.	Pct.	No.	Pct.
Greater La Crosse Area							
17 and under	18,593	19,187	20,250	594	3.2	1,658	8.9
18 to 24	15,515	13,740	11,835	-1,774	-11.4	-3,680	-23.7
25 to 44	21,796	23,456	25,365	1,660	7.6	3,569	16.4
45 to 64	21,047	20,958	19,787	-89	-0.4	-1,260	-6.0
65 and over	12,035	16,597	21,174	4,562	37.9	9,139	75.9
Total	88,985	93,939	98,411	4,954	5.6	9,426	10.6
La Crosse MSA							
17 and under	29,077	29,818	31,225	741	2.5	2,148	7.4
18 to 24	18,910	17,516	15,538	-1,394	-7.4	-3,372	-17.8
25 to 44	31,944	34,353	37,025	2,409	7.5	5,081	15.9
45 to 64	35,226	34,919	33,442	-307	-0.9	-1,784	-5.1
65 and over	18,508	26,034	33,589	7,526	40.7	15,081	81.5
Total	133,665	142,640	150,820	8,975	6.7	17,155	12.8

Note: Column totals may not add exactly due to rounding.
Sources: Bureau of the Census; Maxfield Research Inc.; ESRI Inc.

Table 3. Projected age distribution

TENURE BY AGE OF HOUSEHOLDER
PRIMARY MARKET AREA
2000 & 2010

		Greater La Crosse Area				La Crosse County			
		2000		2010		2000		2010	
Age		No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
15-24	Own	306	7.5	300	7.2	370	8.7	384	8.9
	Rent	3,774	92.5	3,870	92.8	3,866	91.3	3,943	91.1
	Total	**4,080**	**100.0**	**4,170**	**100.0**	**4,236**	**100.0**	**4,327**	**100.0**
25-34	Own	2,533	43.3	2,611	40.5	3,459	48.9	3,398	45.3
	Rent	3,312	56.7	3,841	59.5	3,618	51.1	4,097	54.7
	Total	**5,845**	**100.0**	**6,452**	**100.0**	**7,077**	**100.0**	**7,495**	**100.0**
35-44	Own	4,464	66.7	3,469	65.1	6,301	72.1	5,086	71.0
	Rent	2,228	33.3	1,863	34.9	2,443	27.9	2,080	29.0
	Total	**6,692**	**100.0**	**5,332**	**100.0**	**8,744**	**100.0**	**7,166**	**100.0**
45-54	Own	4,551	75.1	4,783	70.5	6,540	80.0	6,940	76.2
	Rent	1,507	24.9	2,002	29.5	1,633	20.0	2,163	23.8
	Total	**6,058**	**100.0**	**6,785**	**100.0**	**8,173**	**100.0**	**9,103**	**100.0**
55-64	Own	2,901	78.4	4,566	75.8	3,990	82.1	6,593	80.7
	Rent	797	21.6	1,455	24.2	867	17.9	1,580	19.3
	Total	**3,698**	**100.0**	**6,021**	**100.0**	**4,857**	**100.0**	**8,173**	**100.0**
65 +	Own	5,242	72.4	5,529	69.2	6,407	75.3	7,161	72.5
	Rent	1,994	27.6	2,460	30.8	2,105	24.7	2,712	27.5
	Total	**7,236**	**100.0**	**7,989**	**100.0**	**8,512**	**100.0**	**9,873**	**100.0**
TOTAL	Own	19,997	59.5	21,258	57.8	27,067	65.1	29,562	64.1
	Rent	13,612	40.5	15,491	42.2	14,532	34.9	16,575	35.9
	Total	**33,609**	**100.0**	**36,749**	**100.0**	**41,599**	**100.0**	**46,137**	**100.0**

Sources: U.S. Census Bureau; Maxfield Research Inc.

Table 4. Tenure by age of householder

Households

Households represent occupied housing units, and household growth trends are an indicator of housing demand. From 2000 to 2010, the Market Area experienced an increase of 2,726 households, a growth rate of 8.0%. Households in the Market Area are expected to continue to increase at a faster rate in the next decade as compared to the previous decade as the economy accelerates post-recession.

Most new household growth for La Crosse is expected to occur through in-fill and redevelopment including new housing in the Downtown and the potential for new housing on the Riverside North Site. The remaining Market Area communities are also expected to experience household growth except La Crescent, which is expected to decrease its household base by 51 households (-2.5%) between 2010 and 2020. Between 2010 and 2020, the largest numerical change in households is expected in Onalaska with growth of 1,028 households (14.0%). Holmen however, is expected to actually have the higher proportional growth rate during the 2010s at 19.4%.

Age Distribution

The age distribution of the population relates to the type of housing needed in a given community. Younger and older people, specifically those without children, are more likely to be interested in higher-density housing located near urban services and entertainment; middle-aged persons (particularly those with children) generally prefer single-family homes, although some households in urban areas are deciding to purchase a twinhome or a townhome because of the benefit of an association to take care of the exterior upkeep, snow removal, landscaping, and exterior repairs.

Downtown apartments and/or multifamily owner-occupied housing appeal primarily to younger and older households. The primary housing markets for the Downtown La Crosse area, which includes the Riverside North property, are expected to be young singles and couples (ages 25 to 44), middle-age households without children (ages 45 to 64), and older adults (ages 65 and over).

Although the 25 to 44 and 45 to 64 age cohorts comprised nearly half of the population, the 45 to 64 age cohort is projected to decrease between 2010 and 2030. The 25 to 44 population cohort however, is projected to increase by 3,569 between 2010 and 2030. It is anticipated that the projected decline in the 45 to 64 age group will be mitigated by the housing location needs of older seniors and the 45 to 64 age group aging into the 65 and over age cohort.

Owners and Renters

The predominant housing product in the Market Area and La Crosse County is single-family homes, although other housing products have also been very successful in some La Crosse area neighborhoods. Students have traditionally been a strong market for entry-level apartments and particularly, for unique apartments in Downtown La Crosse and near the individual campuses. This pattern is anticipated to continue over the coming decade.

Between 2010 and 2020, a large proportion of the baby-boom generation, those currently 50 to 68, are aging through their 50s and into their late 60s. Many of these households will remain in their single-family homes or will prefer a single-family dwelling. However, those moving into the area from out-of-town and those who are more mobile are likely to consider alternative multifamily products including for-sale and rental.

The projected strong growth among 25 to 44 year olds suggests that there will continue to be a strong market for rental housing which translates primarily to potential demand for entry level housing. However, along with the strong demand for rental housing from this age group, there has also been an increase in the demand for high amenity housing close to goods and services. This trend has already been demonstrated in Downtown La Crosse with the addition of new rental housing as well as condominiums. A growing proportion of young American singles and couples are choosing to live in downtown neighborhoods, especially those areas that provide a unique sense of place and a vibrant environment.

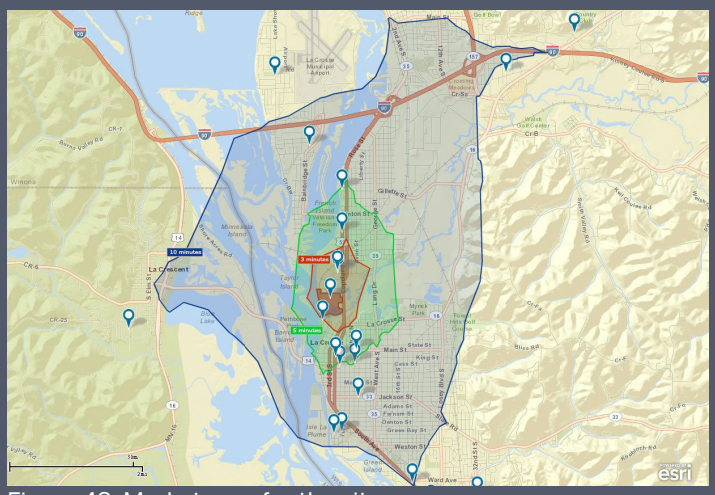


Figure 48. Market area for the site

RESALE OF SINGLE-FAMILY HOMES
LA CROSSE WI
2008 THROUGH 2013

	Resale Trends			
	# of Sales	Median Price	Pct. Change	Average DOM
2008	425	$113,500	---	85
2009	488	$111,750	-1.5%	78
2010	446	$115,000	2.9%	85
2011	388	$114,750	-0.2%	85
2012	494	$114,950	0.2%	88
2013	575	$115,900	0.8%	71
*March 2014	82	$112,250	-3.1%	97
Change 2006-2013	**26.1%**	**2.1%**		

Sources: La Crosse Area Market Updates; Maxfield Research Inc.

Table 5. Resale of single-family homes in the City of La Crosse

RESALE OF SINGLE-FAMILY HOMES
LA CROSSE COUNTY
2008 THROUGH 2013

	Resale Trends			
	# of Sales	Median Price	Pct. Change	Average DOM
2008	1,063	$147,000	---	87
2009	1,083	$137,250	-6.6%	83
2010	1,032	$140,000	2.0%	82
2011	909	$141,900	1.4%	76
2012	1,202	$148,000	4.3%	84
2013	1,325	$143,250	-3.2%	68
*March 2014	179	$147,900	3.2%	86
Change 2008-2013	**19.8%**	**-2.6%**		

Sources: La Crosse Area Market Updates; Maxfield Research Inc.

Table 6. Resale of single-family homes in La Crosse County

EMPLOYMENT GROWTH TRENDS AND PROJECTIONS
MARKET AREA
2000 - 2030

	Employment				Change					
					2011-2014		2014-2020		2020-2030	
	2011	2014	2020	2030	No.	Pct.	No.	Pct.	No.	Pct.
Employment										
La Crosse MSA	73,917	77,316	79,665	83,739	3,399	4.6	2,349	3.0	4,074	5.1
La Crosse County	*65,442*	*69,864*	*71,986*	*75,668*	*4,422*	*6.8*	*2,122*	*3.0*	*3,681*	*5.1*

Sources: Wisconsin's WORKnet; U.S. Bureau of Labor Statistics; Maxfield Research Inc.

Table 7. Employment growth trends and projections

HOUSEHOLD INCOME DISTRIBUTION
MARKET AREA and LA CROSSE COUNTY
2014 and 2020

	Greater La Crosse Area		La Crosse MSA	
	No.	Pct.	No.	Pct.
2014 Estimate				
Less than $15,000	5,304	14.2%	6,859	12.4%
$15,000 to $34,999	8,923	23.8%	12,022	21.7%
$35,000 to $49,999	5,513	14.7%	8,031	14.5%
$50,000 to $74,999	7,469	19.9%	11,794	21.2%
$75,000 to $149,999	8,751	23.4%	14,259	25.7%
$150,000 plus	1,505	4.0%	2,553	4.6%
Total	37,465	100%	55,517	100%
Median Income	*$57,861*		*$51,358*	
2020 Projection				
Less than $15,000	5,183	13.4%	6,664	11.5%
$15,000 to $34,999	6,830	17.6%	8,971	15.5%
$35,000 to $49,999	4,601	11.9%	6,674	11.5%
$50,000 to $74,999	7,210	18.6%	11,194	19.3%
$75,000 to $149,999	12,820	33.1%	20,694	35.8%
$150,000 plus	2,135	5.5%	3,654	6.3%
Total	38,779	100%	57,851	100%
Median Income	*$72,533*		*$61,201*	
Change 2014-2020				
	No.	Pct.	No.	Pct.
Less than $15,000	-121	-2%	-194	-3%
$15,000 to $34,999	-2,093	-23%	-3,052	-25%
$35,000 to $74,999	-912	-17%	-1,357	-17%
$75,000 to $149,999	4,069	46%	6,436	55%
$150,000 plus	630	42%	1,102	43%
Total	1,573	4%	2,934	5%
Median Income	*$14,672*	*25%*	*$9,844*	*19%*

Sources: U.S. Census Bureau, ESRI; Maxfield Research Inc.

Table 8. Household income distribution

Employment Growth Trends and Business Activity

Employment growth signifies that companies are expanding and, if so, households tend to prefer locating near their jobs. Employment in the La Crosse MSA is estimated to increase by 2,349 jobs (3.0%) between 2014 and 2020. The La Crosse MSA added 3,399 jobs (4.6%) during the last decade and is expected to grow at a similar rate through 2030.

Household Income

Household income data helps ascertain the demand for different types of owned and rented housing based on the size of the market at specific cost levels. In general, housing costs of up to 30% of income are considered affordable by the Department of Housing and Urban Development. In 2014 The La Crosse Market Area had an estimated median household income of $57,861. Market Area household incomes are projected to grow over the next six years by $14,672 to a median income of $72,533. This is an average annual increase of 3.8% per year, which is higher than the current U.S. rate of inflation which has averaged 2.4% annually over the past 10 years.

Potential Housing Demand

The projected household growth for the City of La Crosse to 2020 is currently estimated at 2,940 households. Projected household growth for the Greater La Crosse Area is estimated at 4,764 households. Between 2020 and 2030, the City of La Crosse is projected to add another 760 households while the Greater La Crosse Area is projected to increase by 2,335 households. In considering the development potential of the site to 2020 and its location within the City of La Crosse, the subject project could capture approximately 8% to 10% of the projected growth of the city and the Greater La Crosse Area which accounts for baseline demand estimates of between 235 to 480 units of housing that would incorporate a variety of housing products including medium-to-high-density rental and ownership units. The anticipated full build-out of the property will require a period of between eight and twelve years. Depending on demand and the final configuration of structures and buildings, additional units could be accommodated on the site.

Housing products on the site should consist of a mix of rental and ownership and various price points including products that would appeal to young new households, young families, and older adult households that may want to consider easier to maintain alternatives.

As the plan develops and is refined, more specific development concepts will be defined that include building sizes, price points, unit sizes, and mix and estimated development costs.

At this time, we estimate that rental rates would average about $1.25 to $1.30 per square foot for rental units (2014 dollars) and between $200,000 and $350,000 for mid-level ownership products. A portion of all housing products would be targeted to upper-income households.

HOUSEHOLD EXPENDITURES BY SELECTED PRODUCT TYPE
LACROSSE METROPOLITAN AREA
2013

Category	MSA Annual Expenditures Total ($000's)	MSA Annual Expenditures Average Per HH	Spending Potential Index to USA Market Area
Goods & Services			**Index**
Apparel & Services	82,042	1,329	59
Entertainment and Recreation	184,572	2,989	92
Nonprescription Drugs	7,057	114	92
Prescription Drugs	27,812	450	93
Eye Glasses & Contact Lenses	4,879	79	92
Personal Care Products	24,335	394	89
Child Care	23,163	375	85
School Books & Supplies	11,383	184	98
Smoking Products	29,508	478	98
Computer Hardware	11,228	182	89
Computer Software	1,076	17	88
Pets	65,801	587	110
Food			**Index**
Food at Home	281,152	4,554	90
Food Away from Home	175,098	2,836	89
Alcoholic Beverages	29,141	472	89
Non Alcoholic Beverages at Home	26,745	433	91
Home			**Index**
Home Mortgage Payment/Rent	500,763	8,111	86
Maintenance & Remodeling Services	87,585	1,419	88
Maintenance & Remodeling Materials	17,068	276	95
Utilities	283,534	4,592	91
Household Furnishings, Equipment, & Operations			**Index**
Household Textiles	5,760	93	88
Furniture	26,686	432	90
Rugs	1,363	22	87
Major Appliances	15,502	251	91
Small Appliances	2,533	41	92
Housewares	3,579	58	78
Luggage	463	8	84
Telephone & Accessories	2,668	43	81
Lawn & Garden	23,788	385	91
Moving/Storage/Freight Express	3,557	58	88
Housekeeping Supplies	39,998	648	91
Financial & Insurance			**Index**
Investments	86,124	1,395	67
Vehicle Loans	216,925	3,513	92
Owners & Renters Insurance	27,762	450	91
Vehicle Insurance	65,801	1,066	90
Life/Other Insurance	24,553	398	91
Health Insurance	140,001	2,268	91
Transportation			**Index**
Vehicle Purchases (Net Outlay)	204,174	3,307	92
Gasoline and Motor Oil	177,026	2,867	93
Vehicle Maintenance/Repair	60,753	984	90
Travel			**Index**
Airline Fares	23,632	383	83
Lodging	22,848	370	87
Vehicle Rental	1,707	28	82
Food & Drink	23,581	382	87
Summary			
Goods & Services	472,856	6,593	
Food	512,136	8,295	
Home	888,949	14,398	
Household	125,896	2,039	
Financial and Insurance	561,166	9,089	
Transportation	441,953	7,158	
Travel	71,767	1,162	
Total	***3,074,723***	***48,735***	

Note: The Spending Potential Index is based on households and represents the amount spent for a product or service relative to the national average of 100.

Sources: ESRI; Maxfield Research Inc.

Table 9. Household expenditures by product type

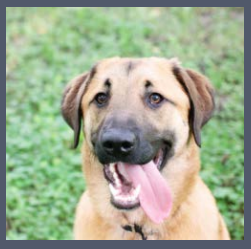
Retail Market Analysis

The potential for new retail development in La Crosse and at the Riverside North site is influenced by overall market conditions in the Trade Area, also referred to as the Market Area. The Trade Area for Riverside North is considered to be the City of La Crosse, although customers that commute back and forth from outside of La Crosse along Copeland Avenue and other drive-by traffic are also considered to be potential customers for commercial retail development at Riverside North.

Summary highlights of consumer expenditures for retail goods and services in La Crosse in 2013 include:

- Housing expenses account for approximately 30% of total consumer expenditures in the La Crosse Metropolitan Area with residents spending between 15% and 20% less than the national average.
- The roughly 55,000 households in the La Crosse Area spent a total of $3.0 billion on retail expenditures in 2013. With the number of households projected to grow to 58,000 in 2020, they would generate an additional $51 million in expenditures annually, not factoring in inflation.
- Retail categories that exhibit the highest expenditures among La Crosse Area households in comparison to what is spent on average by national households are:

Pets	110%
Maintenance and Remodeling Materials	95%
Entertainment and Recreation	92%
Prescription and Non-Prescription Drugs	93%
Eyeglasses and Contact Lenses	92%
Higher Education Expenses	98%
Small Appliances	91%
Lawn and Garden	91%
Housekeeping Supplies	91%
Food at Home	90%



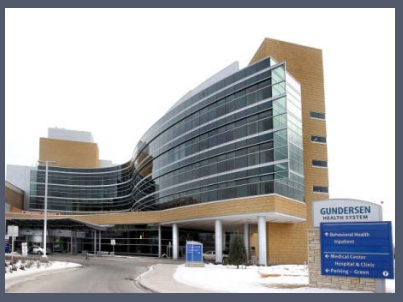


Figure 49. High expenditure categories

- In 2013, the area designated by census tracts shows retail gaps in several retail categories including:
  - General merchandise stores
  - Clothing and clothing accessories stores
  - Electronics and appliance stores
  - Non-store retailers

Potential uses for commercial space on the site include items that take advantage of the high traffic counts on Copeland Avenue and items at the high end of the expenditure spectrum. Examples of such items are specialized pet supplies and services and items associated with entertainment and/or recreation would complement Downtown businesses and enhance the retail mix near the Downtown.

NUMBER OF BUSINESSES BY TYPE 2011

Community	Total Estabs.	Establishments by Employment Size 1-4	5-9	10-19	20-49	50-99	100 +
La Crosse MSA							
Agriculture and Fishing	8	6	1	1	0	0	0
Mining, Quarrying, and Gas Extraction	2	1	0	0	0	1	0
Utilities	7	0	1	2	2	1	1
Construction	980	744	107	65	40	15	9
Manufacturing	172	57	33	21	30	13	18
Wholesale Trade	151	59	28	30	22	7	5
Retail Trade	499	185	115	102	62	16	19
Transportation and Warehousing	118	53	19	16	17	8	5
Information	67	27	7	13	11	5	4
Finance and Insurance	250	158	35	30	17	6	4
Real Estate, Rental, and Leasing	120	87	18	11	3	0	1
Management of Companies and Enterprises	36	9	7	8	7	1	4
Administration, Support, Waste Management, Remediation	154	92	22	15	13	2	10
Educational Services	45	18	7	9	7	2	2
Health Care and Social Assistance	323	95	86	71	34	19	18
Arts, Entertainment, and Recreation	71	42	9	8	7	1	4
Accomodation and Food	355	100	65	84	78	23	5
Other Services (Except Public Administration)	388	208	91	57	27	1	4
Industries Not Classified	5	5	0	0	0	0	0
Professional, Scientific, and Technical Services	1377	1,076	138	87	47	19	10
Total	**5128**	**3015**	**787**	**627**	**422**	**138**	**122**

Sources: U.S. Census Bureau, Maxfield Research Inc.

Table 10. Number of businesses by type

Summary of Demographic and Economic Trends

During the past decade, the Greater La Crosse area experienced slow and steady growth which is expected to continue to 2030. Population and households are expected to increase modestly above the previous rate due to downtown living trends and the expected aggressive promotion of the attractiveness of the La Crosse downtown, and continued growth in suburban locations. Population, households, employment, and construction are also expected to steadily increase with the recovery from the recession.

Residential and commercial property leasing also indicate the desirability of being in and near Downtown La Crosse. Residential rental rates for all categories are higher near the Downtown area. A majority of the commercial properties currently available are within a ten-minute drive of Riverside North and the average lease and for sale rates per square foot for these properties are also higher than the area average.

Although average household consumer expenditures in the La Crosse Area are generally somewhat lower than the average for the nation as a whole, higher levels of expenditures are seen in pets, entertainment and recreation, lawn and garden, household supplies, and building and remodeling expenditures.

The retail gaps analysis shows additional demand in food service and drinking places (i.e. full service restaurants), health and personal care stores and services and general merchandise retailers. Demographic and economic trends along with evaluation of residential and commercial market rates indicate opportunities for the redevelopment site.

Figure 50. Potential housing types

PRELIMINARY DEMAND FOR RETAIL SPACE NORTH RIVERSIDE DRAW AREA 2014 to 2020		2014	2020	2025
Retail Demand from LaCrosse City				
Trade Area Households		22,608	24,374	24,665
(times) Annual Household Expenditures[1]	x	$16,927	$18,689	$20,634
(equals) Total Trade Area Expenditures	=	$382,685,616	$455,520,220	$508,935,601
(plus) Approx. % Leakage Outside the Trade Area[2]	+	20%	20%	15%
(equals) Leakage Outside of Trade Area	=	$76,537,123	$91,104,044	$76,340,340
(equals) Total Purchasing Power[3]		$306,148,493	$364,416,176	$432,595,261
(divided by) Average sales per Sq. Ft.	/	$250	$276	$305
(equals) Total Retail Space Demand (Sq. Ft.)	=	**1,224,594**	**1,320,348**	**1,418,345**
Growth in retail demand 2010 to 2020			193,751	
(times) % of Market Area demand growth capturable by Site	x	15%	-- to --	20%
(equals) Retail space supportable on subject Site (sq. ft.)	=	**29,063**	**-- to --**	**38,750**
[1] Excluding expenditures for home buying, finance & insurance, travel, vehicle sales.				
[2] Leakage is the estimated amount of retail dollars spent outside LaCrosse City.				
[3] 2014 purchasing power is equal to the estimated City retail sales based on information drawn from ESRI.				
Note: The 2014 leakage factor is derived from subtracting the estimated retail sales in the LaCrosse draw area from the total retail expenditures by draw area residents.				
Sources: ESRI; Maxfield Research, Inc.				

Table 11. Preliminary demand for retail space for the North Riverside draw area

Commercial Demand

Based on existing and projected household growth, estimated leakage, and average household expenditures for retail goods and services, an estimated retail demand potential that would be derived from resident households was calculated. Visitor households to the Site may support additional retail demand or may take the place of local resident households depending on the product or service provided.

Average retail sales per square foot are applied to the potential demand to determine the proportion of retail sales growth over time in the La Crosse market area. The growth in retail demand potential in the Market Area and an estimated capture rate of from 15% to 20% of the total results in a range from 29,000 to 38,800 square feet of retail space up to 2025.

**The more detailed assessment of market conditions and projections prepared by Maxfield Research can be found in the Appendix.

Figure 51. Riverside North Master Plan

Figure 52. Riverside North Districts

Figure 53. Riverside North belongs to a "String of Pearls"

MASTER PLAN

The Master Plan establishes a comprehensive framework for public open spaces—a mix of civic, recreational, residential, and commercial uses; pedestrian and vehicular circulation and parking; orientation and shape of development blocks; and building types and conceptual layouts for public infrastructure, phasing and rezoning. In addition to a site design for the +65 acre Mobile/ Patros site, the Master Plan also suggests a new configuration for an expanded civic festival area along the south bank of the La Crosse River. Taken together with the existing Riverside Park, International Gardens, and La Crosse Marsh, the overall Master Plan illustrates the potential for linking the natural assets within this area of the City together as an interconnected open space system with blue and green trails, restored habitat and enhanced ecological function.

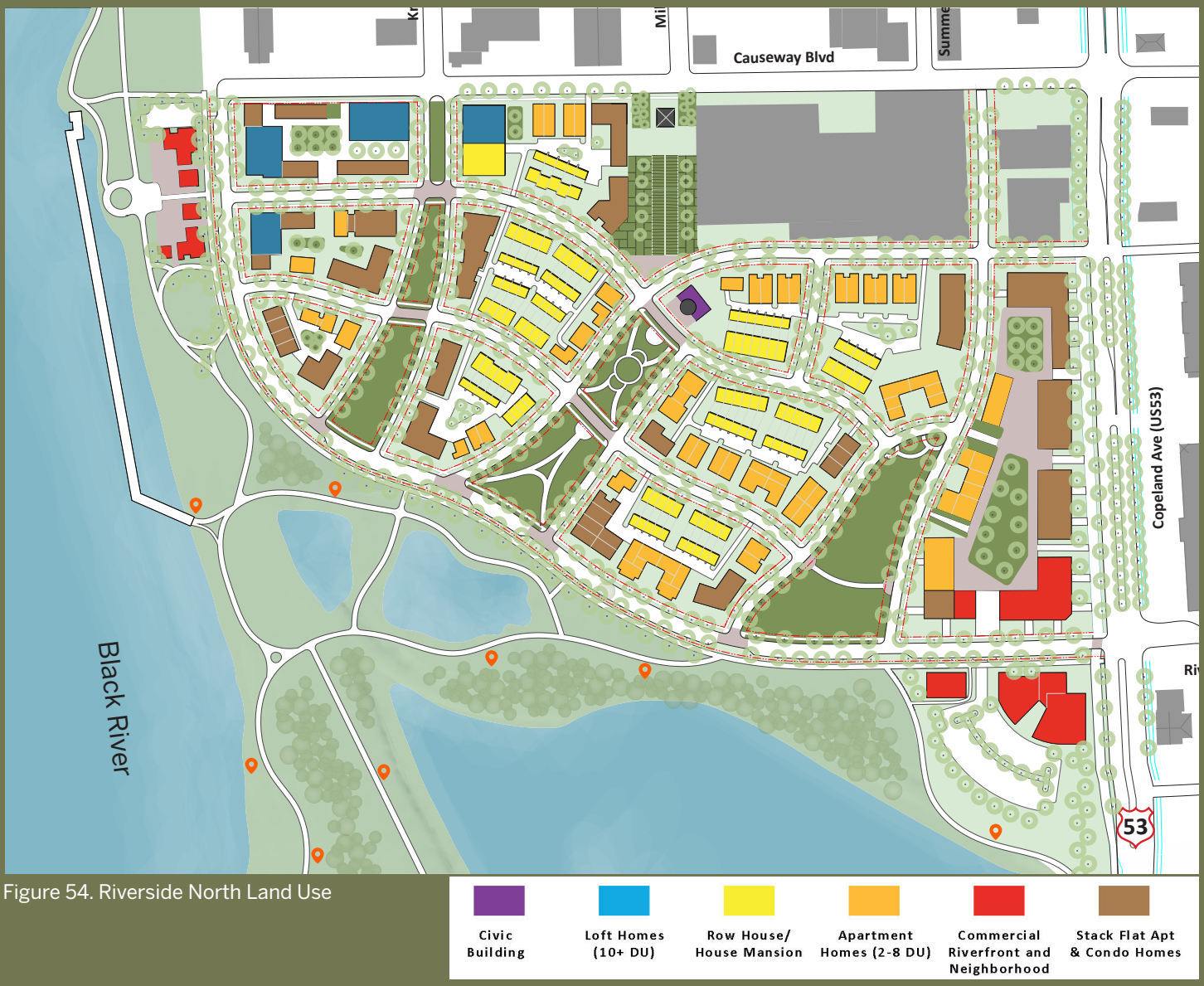


Figure 54. Riverside North Land Use

Land Use and Built Form

One of the key drivers for the layout of the proposed neighborhood were the +30 acres of open and forested wetlands and extensive riverfront embankments. This is achieved through the alignment of a new multimodal parkway and the introduction of three linear eco-extensions or "green fingers" up into the new redevelopment. As a formalized edge, the parkway provide physical and visual access to the site's environmental riches for residents and visitors alike. The green fingers extend these view sheds while also providing areas for stormwater management and more intimate scaled passive and active green spaces for residents. Overall, residential density is proposed to range between 13.3-15.5 DU/acre.

The plan proposes three mixed-use districts: The North Pier, The Oxbow, and The Avenue. Each district fronts along one of the three primary green finger public spaces as well as the new parkway.

Figure 55. The North Pier District

The North Pier includes a mix of 4- and 3-story loft and stacked flat residential buildings along with waterfront commercial space. The area is intended to offer a set of urban-style residential building types situated on three small development blocks. The waterfront oriented commercial space is configured around a landscaped courtyard with direct access to a linear riverside dock and trail along the Black River. Approximately 90 – 120 dwellings are proposed for this 7.7 acre area of the project for an average density of 15.5 DU/Acre. Approximately 7,000 – 10,000 square feet of restaurant, entertainment and retail space is proposed for the waterfront area.

Figure 56. The Oxbow District

Figure 57. The Avenue District

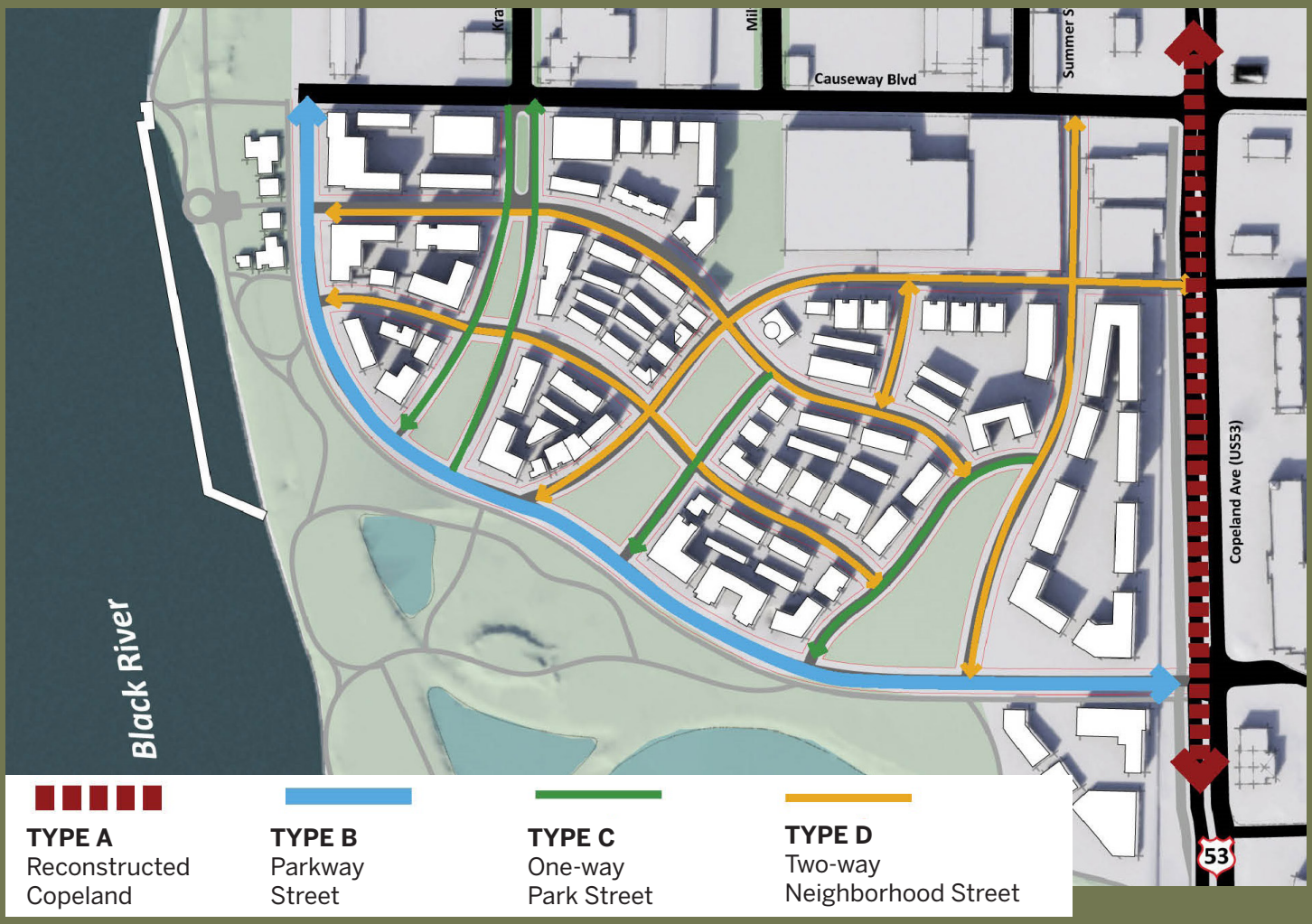


Figure 58. Street cross-section type key

The Oxbow includes a wide mix of multifamily residential building types from larger, 3-story stacked flat condominium and apartment homes, to 1½ story row houses, 3 to 6 unit flats and mansion-style apartment homes. Buildings are either oriented east-west towards the public green space or north-south along the new residential streets. The row houses are sited to maximize solar orientation with deeper front yards for south fronting homes and deeper rear yards for north fronting homes. They are also anticipated to have a mix of attached and detached garages to provide a variety of private yard configurations. Approximately 220 to 260 dwellings on seven blocks are projected for the Oxbow district for an average density of 13.3 DU/ Acre.

The Avenue fronts Copeland Avenue and a portion of the eastern most public green space. It primarily consists of 3-story stacked flat apartments homes with a combination of underground and surface parking. The area adjacent to the main site entry includes a vertically integrated mixed residential/ commercial building and a cluster of single story commercial buildings organized around a parking court with outdoor public spaces oriented towards the primary wetland and La Crosse River. Approximately 90 – 120 dwellings are projected for this 7.5 acre area for an average density of 14 DU/ Acre. Approximately 20,000 - 30,000 square feet of restaurant, entertainment and retail space is proposed for the area to the south of the main parkway entry.

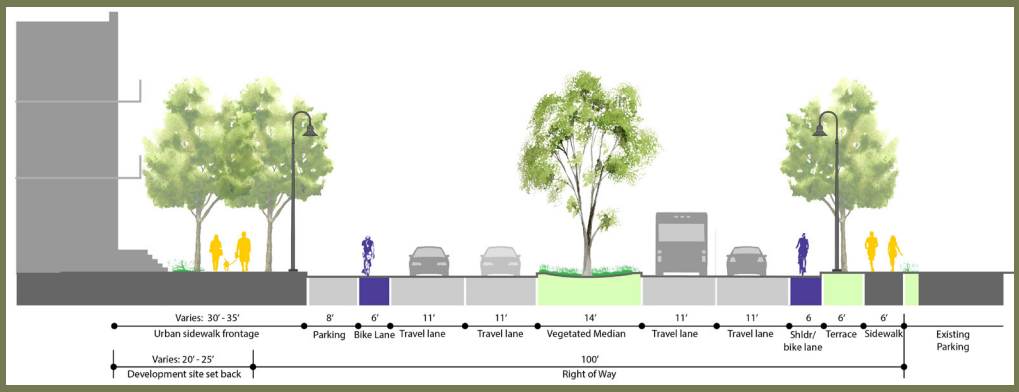


Figure 59. Type A - Reconstructed Copeland

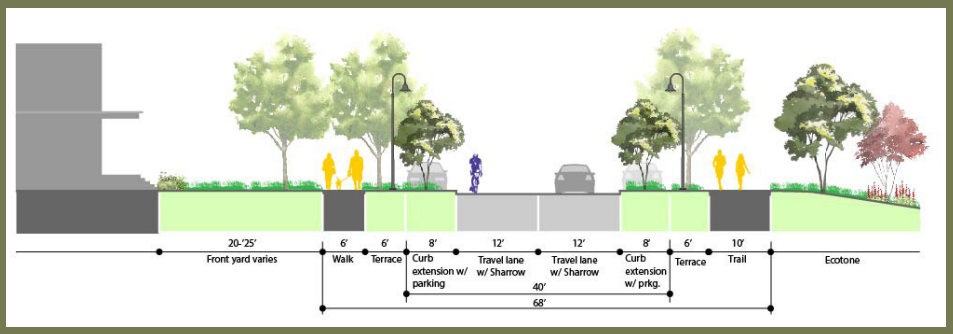


Figure 60. Type B - Parkway street

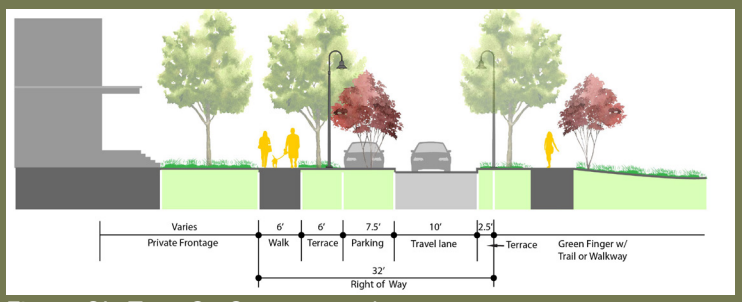


Figure 61. Type C - One-way park street

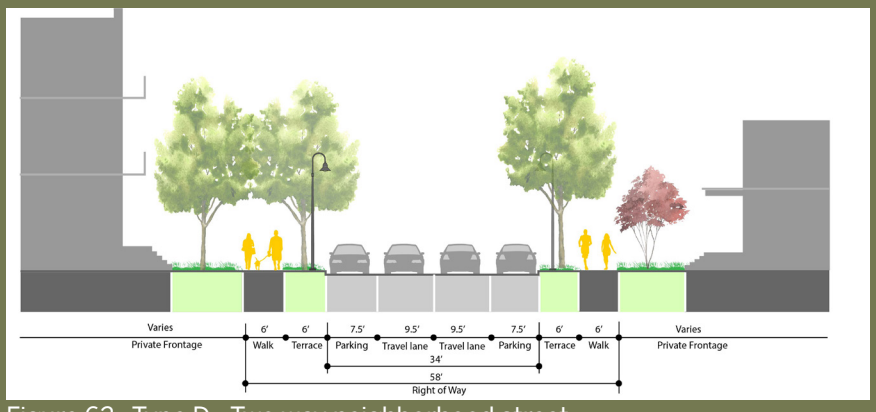


Figure 62. Type D - Two way neighborhood street

Multimodal Access & Circulation

All of the project's streets are proposed to include sidewalks or paved trails, a tree lawn, and parallel parking to support travel by foot, bicycle, and motor vehicle. Where internal streets meet the new parkway, curb extensions should be introduced to reduce crossing distances and create linear bays of parking. Alleyways and parking courts paved with permeable pavers are also proposed reduce rainwater runoff, minimize driveway curb cuts along the streetscape, enhance walkability and pedestrian safety. Three distinct street types are proposed:

- Type A. Two-way parkway
- Type B. Two-way local street
- Type C. One-way local street

In addition to three internal street types, the plan also calls for the reconfiguration of Copeland Avenue as a more attractive urban thoroughfare with a wide landscape promenade walkway flanked by a double colonnade of trees and parallel parking, similar to streets in downtown La Crosse.

An interconnected network of sidewalks, paved trails, and boardwalks allows residents and visitors to navigate through the site, accessing open space features and the riverfront. This network also provides convenient connections to Riverside Park, the city's greater trail system, as well to downtown and surrounding neighborhoods.

The existing transit stops and bus shelters along Copeland Avenue should be upgraded when the road is reconstructed (and raised above the100-year flood plain) to further support transit use by new residents.

Figure 63. Public and active transportation diagram for Riverside North

Figure 65. Commercial at the front door to Riverside North serves the whole neighborhood.

Figure 64. Corner store and multi-story residential with entrances along the street help activate the neighborhood.

Green, Blue & Grey Infrastructure

The Riverside North Plan takes a balanced approach that integrates traditional "grey" infrastructure of roads, pavement, and subsurface utilities with more environmentally sensitive, green and blue infrastructure associated with the site's natural resources and waterways.

Gray Infrastructure – the design leverages the existing Copeland Avenue spine and, to a lesser degree, Causeway Avenue that are well served by vehicular access and all major utilities. Additional neighborhood scale streets, walks, trails, and water and sanitary service are accommodated in the plan. Stormwater is accommodated primarily through green infrastructure surface flow elements illustrated in Figures 66-67, including natural, on-site collection and infiltration. Where practical from a maintenance and hydrology standpoint, paved surfaces should be constructed as permeable systems. Major overhead electrical lines that currently traverse the site are recommended for burial.

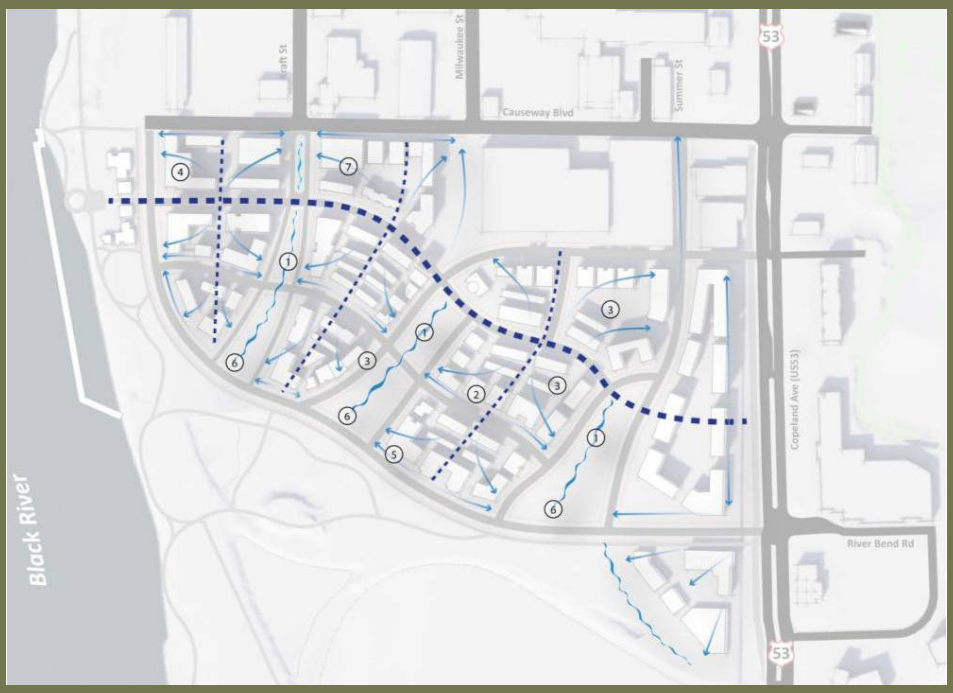


Figure 66. Surface stormwater is directed to green finger open space infrastructure

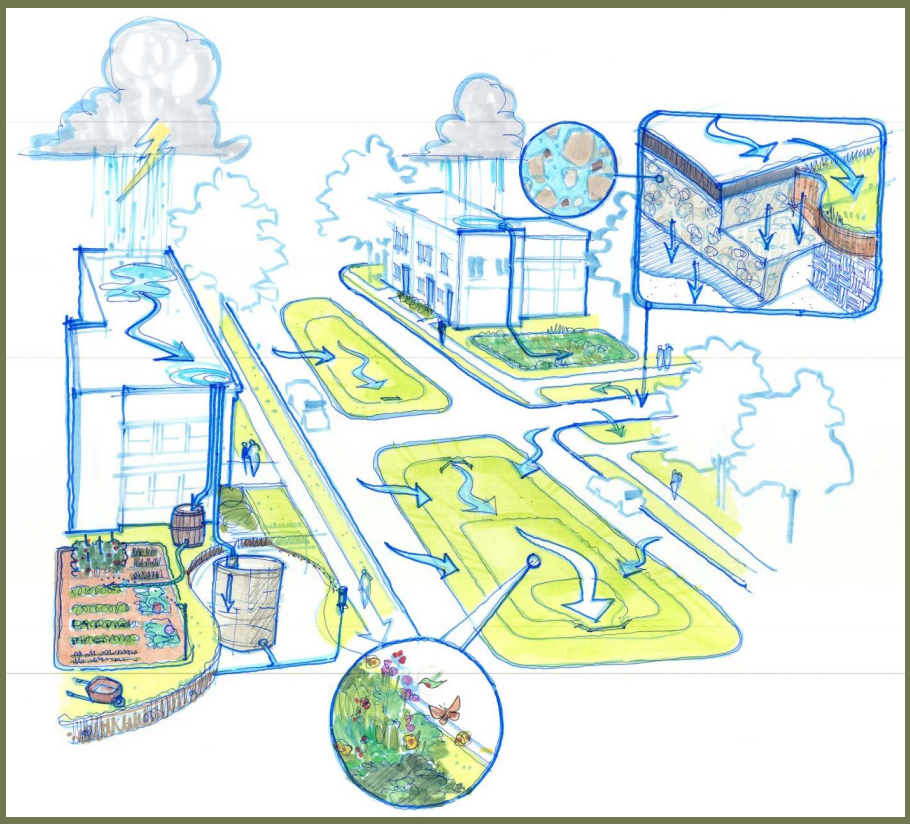


Figure 67. Diagram illustrating how the green fingers work as green infrastructure

Figure 68. Restoring the site's natural ecosystem will improve habitat and create real estate value.

Figure 69. Water and electricity diagram for Riverside North

Figure 70. Sewer diagram for Riverside North

The plan recommends restoring existing wetlands and natural areas at the three river confluence and extending this system through a network of green fingers. These fingers are public spaces that permeate the neighborhood districts and connect them to each other and to nearby attractions via a green ribbon of public open spaces, trails and natural habitat areas. This network is the backbone of the site's recreational and habitat network while also serving as its primary treatment train for on-site stormwater. The network uses a system of rain gardens and infiltration basins to collect and filter rain water runoff before returning it to surrounding waterways and underground aquifers. This "green infrastructure" system is augmented by a blue network that capitalizes on existing and proposed new water features, as well as proposed sustainable stormwater strategies, for environmental and recreational amenities. The amenities include guarded existing and new river access points for canoes and kayaks, year-round recreational programming and the potential for river travelers to dock at new transient docking facilities.

Figure 71. Riverfront at dusk

Figure 72. New freshwater basin supports active recreation in all seasons.

Figure 73. Renovated pedestrian trestle bridge over the La Crosse River

Figure 74. Cross-section of renovated pedestrian trestle bridge

Figure 75. Trails through forested wetlands provide year-round opportunities for recreation and interpretation.

Figure 76. Cross-section of transient boat mooring and riverfront trail

Figure 77. Phasing Plan for Riverside North

Suggested Phasing Plan

1. **Continued trail & ecological enhancement**
2. **Repair of railroad truss**
3. **Development of public/private pier facility, transient dock & construction of parkway street and adjacent residential blocks**
4. **Southeast corner commercial development and additional residential blocks**
5. **The Avenue district**
6. **Riverfront commercial and former industrial blocks**

Phasing

It is anticipated that the neighborhood will be built in multiple phases over a seven to ten year time period. Typically, the greater the intensity of development, the longer it takes to build out a neighborhood. It is crucial that the initial phases clearly portray the project's intent—to establish a walkable, urban neighborhood with a mix of housing types and price points, feature the site's extensive natural setting, and exhibit a strong sense of place. It will be important for the City and the master developer to collaborate throughout the development process, refining the unit mix and development intensity to respond to market dynamics.

Figure 78. Regulating Plan diagram for Riverside North

Regulating Plan

The Regulating Plan and supporting zoning code provide the details for realizing the urban form envisioned for Riverside North. The urban design parameters (setbacks, parking requirements, building heights, etc.) of each of the three development districts (The North Pier, The Oxbow and The Avenue) are described in illustrative diagrams, tables, and narratives. The project-specific zoning is intended to be adopted during the Master Plan approval process and applied to the site as an overlay.

Proposed implementation schedule

Project	Year
City Council approval of Plan	2014
City Council adoption of overlay zoning district	2014
Re-issue Developer RFQ	2014
South bridge improvements	2014/2015
Pave multi use path and add crossing at Copeland	2015
Construct multi use path on the north property	2015
Purchase property access to site	2015
Gain site closure on cleanup	2015
Rezone properties at the periphery of the project area to be compatible with site	2015
Obtain grant for feasibility plan/design for dock	2015/2016
Wetland restoration and removal of invasive species	2015-17
Research sources of fill, permit implications, and costs including possible River dredging	2015
Obtain fill, grade site, and obtain LOMAR	2016/2017
Replatt properties (with Developer)	2016
Construct Copeland and Kraft access points with utility main stubs	2017
Roads and utility design (City or Developer)	2017
Build dock with grant funding	2017-2019

The Riverfront North Project Team would like to thank the City of La Crosse for a terrific charrette.

Thanks!

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In association with partners:

TOM LOW SMITHGROUP JJR Maxfield Research Inc

May 19, 2014

MEMORANDUM

TO: Ms. Amy Peterson
City of LaCrosse

FROM: Ms. Mary C. Bujold
Maxfield Research Inc.

RE: Trade Area Definition and Market Information for the Riverside North Redevelopment Site in LaCrosse, Wisconsin

---

Introduction

This document summarizes our findings regarding growth trends and demographic characteristics for the Greater LaCrosse Area that would impact the potential demand for residential, commercial and public uses on the Riverside North property. This memorandum discusses the potential for residential development on the Site and also incorporates information on consumer expenditures, retail gaps and a calculation of demand for retail goods and services at the Site.

Market Area Definition

Maxfield Research Inc. defines a draw area (or Market Area) for real estate market impacts on La Crosse, WI based on geographic and man-made boundaries, employment and retail commuting patterns, and the knowledge gained of the residential and commercial real estate market in the area. This area is considered as the primary draw area. The Market Area was determined as the Cities of La Crosse WI, Holmen WI, Onalaska WI, French Island CDP, Brice Prairie CDP, and La Crescent MN. The draw area includes data that was evaluated from these communities in addition to La Crosse County, WI and the La Crosse Metropolitan Statistical Area (MSA). A map of the areas is shown below with the greater La Crosse Area shaded orange, the La Crosse MSA outlined in blue and the Market Area shaded yellow.

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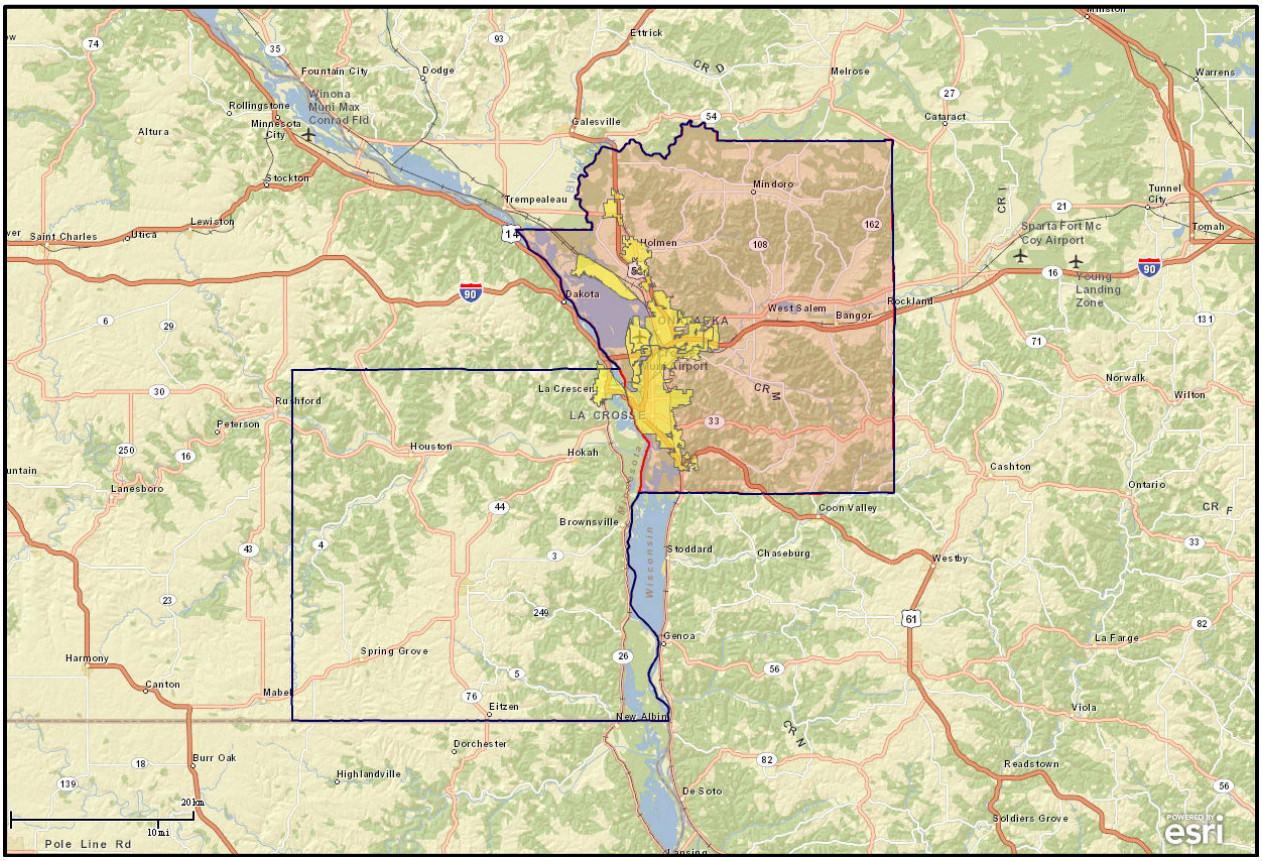
LaCrosse Market Area



Maxfield Research Inc.

Demographic Overview

Population and household growth trends and projections are analyzed in this section because these are key indicators of the potential demand for housing and retail space. Data is also analyzed on population age distribution, household income, and household tenure. This information is helpful in assessing demand for various housing product types in an area. The following are key points from the analysis of demographic indicators for the La Crosse Market Area.

Population and Household Growth Trends

Tables 1 and 2 present population and household growth trends and projections from 2000 to 2030 for the Market Area. Data is compiled by Maxfield Research from published U.S. Census Bureau figures of 2000 and 2010 population, projections from the Wisconsin Demographic Services Center and projections from ESRI, a national demographics forecasting company. These figures have been adjusted by Maxfield Research to reflect local population and

household growth forecasts. Continued population, household, and job growth in the area are key factors in identifying future housing needs and service demands.

Population

Demographic trends reveal that the population of the Market Area increased by 3,800 people or 4.5% from 2000 to 2010. Most of the population growth that occurred during the 2000s was in Holmen and Onalaska, two rapidly growing communities in the LaCrosse area. Some of the reasons for this rapid growth include a preference by families for schools in those areas as well as a greater amount of land available for new residential development. Conversely, LaCrosse city lost population during this period (-736 people), primarily a result of an increase in smaller household sizes and limited land available for new housing development.

Projections indicate that the population will continue to grow in the Market Area over this next decade at a slightly higher rate than during the 2000s. New student apartments and other multifamily and redevelopment sites are slated to bring new housing to the City of LaCrosse. Growth in the outlying communities of Onalaska and Holmen is also projected to continue, but at a slightly slower rate than in the previous decade.

In 2010, the Market Area had 88,985 people, representing an increase of 3,799 people or 4.5% since 2000. In this same time period, Holmen and Onalaska experienced rapid growth compared to the Market Area as a whole, adding 2,415 people (36.6%) and 2,203 people (14.2%), respectively.

TABLE 1
POPULATION GROWTH TRENDS AND PROJECTIONS
MARKET AREA
2000-2030

	Population				Change					
	Census		Projection		2000-2010		2010-2020		2020-2030	
	2000	2010	2020	2030	No.	Pct.	No.	Pct.	No.	Pct.
Population										
La Crosse, WI	52,056	51,320	52,550	53,306	-736	-1.4	1,230	2.4	756	1.4
Brice Prairie CDP, WI	1,804	1,887	2,070	2,258	83	4.6	183	9.7	188	9.1
French Island CDP, WI	4,318	4,207	4,334	4,478	-111	-2.6	127	3.0	144	3.3
Holmen, WI	6,590	9,005	10,560	12,120	2,415	36.6	1,555	17.3	1,560	14.8
La Crescent, MN	4,885	4,830	4,566	4,300	-55	-1.1	-264	-5.5	-266	-5.8
Onalaska, WI	15,533	17,736	19,860	21,950	2,203	14.2	2,124	12.0	2,090	10.5
Market Area Total	**85,186**	**88,985**	**93,939**	**98,411**	**3,799**	**4.5**	**4,954**	**5.6**	**4,472**	**4.8**
La Crosse MSA	*126,838*	*133,665*	*141,327*	*149,007*	**6,827**	**5.4**	**7,662**	**5.7**	**7,680**	**5.4**

Sources: U.S. Census, ESRI, WI Demographic Service Center, Maxfield Research Inc.

Population growth in the Market Area is projected to be slightly higher between 2010 and 2020 than during the previous decade, adding 4,954 people (5.6%). By 2030, another 4,472 people (4.8%) growth is projected. La Crosse is projected to grow by 1,230 people (2.4%) by 2020 and 756 people (1.4%) by 2030. All other cities in the Market Area are expected to grow except La Crescent which is expected to continue decreasing in population to 2030.

Households

Households represent occupied housing units and household growth trends are an indicator of housing demand. From 2000 to 2020, the Market Area experienced an increase of 2,726 households, a growth rate of 8.0%. Households in the Market Area are expected to continue to increase at a faster rate in the next decade as compared to the previous decade as the economy accelerates post-Recession. The Market Area is projected to add 4,764 households (13.0%) by 2020 and 2,335 households (5.6%) by 2030. The City of LaCrosse is projected to add 2,946 households (13.7%) by 2020 and 582 households 2.4% by 2030.

As shown on Table 2, the Market Area had 36,749 households in 2010, an increase of 2,726 households over the last decade. Of this growth, Onalaska added the most new households, 1,203 (19.6%) and Holmen had the greatest percentage increase in households 40.5%, adding 980 households. La Crosse added 254 households (1.2%) from 2000 to 2010. The smaller household growth for the City of LaCrosse, reflects that community's near fully-developed status and a limited amount of land available to accommodate new housing. The reclamation of the Riverside North property will enable LaCrosse to create land for new residential development.

TABLE 2
HOUSEHOLD GROWTH TRENDS AND PROJECTIONS
MARKET AREA
2000 - 2030

	Households				Change					
			Projection		2000 - 2010		2010 - 2020		2020-2030	
	2000	2010	2020	2030	No.	Pct.	No.	Pct.	No.	Pct.
Households										
La Crosse, WI	21,174	21,428	24,374	24,956	254	1.2	2,946	13.7	582	2.4
Brice Prairie CDP, WI	654	704	783	868	50	7.6	79	11.3	84	10.8
French Island CDP, WI	1,716	1,874	1,977	2,081	158	9.2	103	5.5	104	5.2
Holmen, WI	2,420	3,400	4,058	4,731	980	40.5	658	19.4	672	16.6
La Crescent, MN	1,931	2,012	1,961	1,896	81	4.2	-51	-2.5	-65	-3.3
Onalaska, WI	6,128	7,331	8,359	9,317	1,203	19.6	1,028	14.0	958	11.5
Market Area Total	**34,023**	**36,749**	**41,513**	**43,848**	**2,726**	**8.0**	**4,764**	**13.0**	**2,335**	**5.6**
La Crosse MSA	*49,232*	*53,986*	*57,851*	*61,741*						

Sources: U.S. Census, Maxfield Research Inc.

Most new household growth for La Crosse is expected to occur through in-fill and redevelopment including new housing in the Downtown and the potential for new housing on the Riverside North Site. The remaining Market Area communities are also expected to experience household growth except La Crescent, which is expected to decrease its household base by -51 households (-2.5) between 2010 and 2020. Between 2010 and 2020, the largest numerical change in households is expected in Onalaska with growth of 1,028 households (14.0%). Holmen however, is expected to actually have the higher proportional growth rate during the 2010s at 19.4%.

Age Distribution

The age distribution of the population relates to the type of housing needed in a given community. Younger and older people, specifically those without children, are more likely to be interested in higher density housing located near urban services and entertainment; middle-aged persons (particularly those with children) generally prefer single-family homes, although some households in urban areas are deciding to purchase a twinhome or a townhome because of the benefit of an association to take care of the exterior upkeep, snow removal, landscaping and exterior repairs. Table 3 presents the age distribution of the Market Area and the La Crosse MSA populations from the 2010 Census with projections to 2020 and 2030. The table shows the number of people and the percent of the population in five age categories.

Downtown apartments and/or multifamily owned-occupied housing appeal primarily to younger and older households. The primary housing markets for the Downtown La Crosse area, which includes the Riverside North property, are expected to be young singles and couples (ages 25 to 44), middle-age households without children (ages 45 to 64), and older adults (ages 65 and over).

TABLE 3
PROJECTED AGE DISTRIBUTION
MARKET AREA
2000-2030

	U.S. Census	Forecast		Change 2010-2020		Change 2010-2030	
Age	2010	2020	2030	No.	Pct.	No.	Pct.
Greater La Crosse Area							
17 and under	18,593	19,187	20,250	594	3.2	1,658	8.9
18 to 24	15,515	13,740	11,835	-1,774	-11.4	-3,680	-23.7
25 to 44	21,796	23,456	25,365	1,660	7.6	3,569	16.4
45 to 64	21,047	20,958	19,787	-89	-0.4	-1,260	-6.0
65 and over	12,035	16,597	21,174	4,562	37.9	9,139	75.9
Total	88,985	93,939	98,411	4,954	5.6	9,426	10.6
La Crosse MSA							
17 and under	29,077	29,818	31,225	741	2.5	2,148	7.4
18 to 24	18,910	17,516	15,538	-1,394	-7.4	-3,372	-17.8
25 to 44	31,944	34,353	37,025	2,409	7.5	5,081	15.9
45 to 64	35,226	34,919	33,442	-307	-0.9	-1,784	-5.1
65 and over	18,508	26,034	33,589	7,526	40.7	15,081	81.5
Total	133,665	142,640	150,820	8,975	6.7	17,155	12.8

Note: Column totals may not add exactly due to rounding.
Sources: Bureau of the Census; Maxfield Research Inc.; ESRI Inc.

In 2010, people ages 25 to 44 and 45 to 64 comprised approximately 48% of the Greater La Crosse Area cities' population. Among the La Crosse MSA, these groups accounted for a slightly higher proportion, 50%.

Although the 25 to 44 and 45 to 64 age cohorts comprised nearly half of the population, the 45 to 64 age cohort is projected to decrease between 2010 and 2030. The 25 to 44 population cohort however, is projected to increase by 3,569 people and the 45 to 64 population cohort is projected to decrease by -1,260 people, or 16.4% and -6.0% respectively between 2010 and 2030. It is anticipated however, that the projected decline in the 45 to 64 age group will be mitigated by the housing location needs of older seniors and the 45 to 64 age group aging into the 65 and over age cohort.

Household Tenure (Owners and Renters)

The predominant housing product in the Market Area and La Crosse County is single-family homes although other housing products have also been very successful in some La Crosse area neighborhoods. The rental market supports students attending the University of Wisconsin-La Crosse, Viterbo University, and Western Technical College as can be seen by the higher rental tenure in the age cohorts 15 to 24 and 25 to 34 years. Students will continue to be a strong market for entry-level apartments and particularly, for unique apartments in Downtown LaCrosse and near the individual campuses.

TABLE 4
TENURE BY AGE OF HOUSEHOLDER
PRIMARY MARKET AREA
2000 & 2010

		Greater La Crosse Area				La Crosse County			
		2000		2010		2000		2010	
Age		No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
15-24	Own	306	7.5	300	7.2	370	8.7	384	8.9
	Rent	3,774	92.5	3,870	92.8	3,866	91.3	3,943	91.1
	Total	**4,080**	**100.0**	**4,170**	**100.0**	**4,236**	**100.0**	**4,327**	**100.0**
25-34	Own	2,533	43.3	2,611	40.5	3,459	48.9	3,398	45.3
	Rent	3,312	56.7	3,841	59.5	3,618	51.1	4,097	54.7
	Total	**5,845**	**100.0**	**6,452**	**100.0**	**7,077**	**100.0**	**7,495**	**100.0**
35-44	Own	4,464	66.7	3,469	65.1	6,301	72.1	5,086	71.0
	Rent	2,228	33.3	1,863	34.9	2,443	27.9	2,080	29.0
	Total	**6,692**	**100.0**	**5,332**	**100.0**	**8,744**	**100.0**	**7,166**	**100.0**
45-54	Own	4,551	75.1	4,783	70.5	6,540	80.0	6,940	76.2
	Rent	1,507	24.9	2,002	29.5	1,633	20.0	2,163	23.8
	Total	**6,058**	**100.0**	**6,785**	**100.0**	**8,173**	**100.0**	**9,103**	**100.0**
55-64	Own	2,901	78.4	4,566	75.8	3,990	82.1	6,593	80.7
	Rent	797	21.6	1,455	24.2	867	17.9	1,580	19.3
	Total	**3,698**	**100.0**	**6,021**	**100.0**	**4,857**	**100.0**	**8,173**	**100.0**
65 +	Own	5,242	72.4	5,529	69.2	6,407	75.3	7,161	72.5
	Rent	1,994	27.6	2,460	30.8	2,105	24.7	2,712	27.5
	Total	**7,236**	**100.0**	**7,989**	**100.0**	**8,512**	**100.0**	**9,873**	**100.0**
TOTAL	Own	19,997	59.5	21,258	57.8	27,067	65.1	29,562	64.1
	Rent	13,612	40.5	15,491	42.2	14,532	34.9	16,575	35.9
	Total	**33,609**	**100.0**	**36,749**	**100.0**	**41,599**	**100.0**	**46,137**	**100.0**

Sources: U.S. Census Bureau; Maxfield Research Inc.

Between 2010 and 2020, a large proportion of the baby-boom generation, those currently 50 to 68, are aging through their 50s and into their late 60s. While most of these households will remain in their single-family homes or will prefer a single-family dwelling, those moving into the area from out-of-town and those who are more mobile, are likely to consider alternative multifamily products including for-sale and rental.

The projected strong growth among 25 to 44 year olds suggests that there will continue to be a strong market for rental housing which translates primarily to potential demand for entry level housing. However, along with the strong demand for rental housing from this age group there has also been an increase in the demand for higher amenity housing close to goods and services. This trend has already been demonstrated in Downtown LaCrosse with the addition of new rental housing as well as condominiums. A growing proportion of young American singles and couples are choosing to live in downtown neighborhoods, especially those areas that provide a unique sense of place and a vibrant environment.

Table 4 shows that more households own than rent their housing in the Market Area. However, between 2000 and 2010, the proportion of households that rent their housing increased among nearly every age cohort. The greatest increase in the proportion of households renting their housing was among those in the age 45 to 54 cohort. In 2000, 24.9% of households rented their housing. By 2010, that proportion had increased a full five percentage points to 29.5%. T

Table 5 shows the number and proportion of households that own and rent their housing by income level. Households with incomes of $50,000 to $99,999 increased their proportion of ownership.

TABLE 5
TENURE BY HOUSEHOLD INCOME
GREATER LA CROSSE AREA
2000 & 2010

	2000				2010			
	Own		Rent		Own		Rent	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Less than $15,000	1,852	30.4	4,247	69.6	1,260	22.9	4,247	77.1
$15,000 to $24,999	2,976	50.1	2,965	49.9	1,940	39.6	2,965	60.4
$25,000 to $34,999	3,207	60.6	2,084	39.4	1,822	46.6	2,084	53.4
$35,000 to $49,999	5,336	69.7	2,325	30.3	3,207	58.0	2,325	42.0
$50,000 to $74,999	3,897	67.2	1,901	32.8	5,336	73.7	1,901	26.3
$75,000 to $99,999	2,826	82.2	610	17.8	3,897	86.5	610	13.5
$100,000+	15,817	97.4	423	2.6	4,088	90.6	423	9.4
Total	*35,911*	*71.2*	*14,555*	*28.8*	*21,550*	*59.7*	*14,555*	*40.3*

Source: U.S. Census Bureau; ESRI; Maxfield Research Inc.

Households with incomes of $50,000 to $74,999 increased their ownership rate by six and one-half percentage points. Households with incomes of $100,000 to $149,999 increase their ownership rate by about four percentage points.

Households with incomes of $25,000 to $34,999 increased their proportion of renters to 53.4% from 39.4%. Households with incomes of $35,000 to $44,999 increase their proportion of renters from 30.3% in 2000 to 42.0% in 2010.

Overall, the proportion of households at all income levels renting their housing increased from 28.8% in 2000 to 40.3% in 2010.

Employment Growth Trends and Business Activity

Employment growth signifies that companies are expanding and, if so, households tend to prefer locating near their jobs. Table 6 shows that employment in the La Crosse MSA is estimated to increase by 2,349 jobs (3.0%) between 2014 and 2020. The La Crosse MSA added 3,399 jobs (4.6%) during the last decade and is expected to grow at a similar rate through 2030. Data was compiled from information available through Wisconsin's WORKnet website and the US Bureau of Labor Statistics.

TABLE 6
EMPLOYMENT GROWTH TRENDS AND PROJECTIONS
MARKET AREA
2000 - 2030

	Employment				Change					
					2011-2014		2014-2020		2020-2030	
	2011	2014	2020	2030	No.	Pct.	No.	Pct.	No.	Pct.
Employment										
La Crosse MSA	**73,917**	**77,316**	**79,665**	**83,739**	**3,399**	**4.6**	**2,349**	**3.0**	**4,074**	**5.1**
La Crosse County	*65,442*	*69,864*	*71,986*	*75,668*	*4,422*	*6.8*	*2,122*	*3.0*	*3,681*	*5.1*

Sources: Wisconsin's WORKnet; U.S. Bureau of Labor Statistics; Maxfield Research Inc.

According to County Business Patterns, most employment in the La Crosse MSA as of 2011 was in Professional, Scientific and Technical Services (approximately 26.7%). This was followed by Construction, Retail Trade, Other Services (except public administration) Accommodation and Food Service, and Heath Care and Social Assistance.

TABLE 7
NUMBER OF BUSINESSES
BY TYPE
2011

Community	Total Estabs.	Establishments by Employment Size 1-4	5-9	10-19	20-49	50-99	100 +
La Crosse MSA							
Agriculture and Fishing	8	6	1	1	0	0	0
Mining, Quarrying, and Gas Extraction	2	1	0	0	0	1	0
Utilities	7	0	1	2	2	1	1
Construction	980	744	107	65	40	15	9
Manufacturing	172	57	33	21	30	13	18
Wholesale Trade	151	59	28	30	22	7	5
Retail Trade	499	185	115	102	62	16	19
Transportation and Warehousing	118	53	19	16	17	8	5
Information	67	27	7	13	11	5	4
Finance and Insurance	250	158	35	30	17	6	4
Real Estate, Rental, and Leasing	120	87	18	11	3	0	1
Management of Companies and Enterprises	36	9	7	8	7	1	4
Administration, Support, Waste Management, Remediation	154	92	22	15	13	2	10
Educational Services	45	18	7	9	7	2	2
Health Care and Social Assistance	323	95	86	71	34	19	18
Arts, Entertainment, and Recreation	71	42	9	8	7	1	4
Accomodation and Food	355	100	65	84	78	23	5
Other Services (Except Public Administration)	388	208	91	57	27	1	4
Industries Not Classified	5	5	0	0	0	0	0
Professional, Scientific, and Technical Services	1,377	1,076	138	87	47	19	10
Total	**5,128**	**3,015**	**787**	**627**	**422**	**138**	**122**

Sources: U.S. Census Bureau, Maxfield Research Inc.

Household Income

Household income data helps ascertain the demand for different types of owned and rented housing based on the size of the market at specific cost levels. In general, housing costs of up to 30% of income are considered affordable by the Department of Housing and Urban Development (HUD). Table 8 shows household incomes for the Market Area and the La Crosse MSA for 2014 and 2020. Income estimates and projections were obtained from ESRI Inc. and were adjusted by Maxfield Research to reflect local household growth forecasts.

TABLE 8
HOUSEHOLD INCOME DISTRIBUTION
MARKET AREA and LA CROSSE MSA
2014 and 2020

	Greater La Crosse Area		La Crosse MSA	
	No.	Pct.	No.	Pct.
2014 Estimate				
Less than $15,000	5,304	14.2%	6,859	12.4%
$15,000 to $34,999	8,923	23.8%	12,022	21.7%
$35,000 to $49,999	5,513	14.7%	8,031	14.5%
$50,000 to $74,999	7,469	19.9%	11,794	21.2%
$75,000 to $149,999	8,751	23.4%	14,259	25.7%
$150,000 plus	1,505	4.0%	2,553	4.6%
Total	37,465	100%	55,517	100%
Median Income	***$57,861***		***$51,358***	
2020 Projection				
Less than $15,000	5,183	13.4%	6,664	11.5%
$15,000 to $34,999	6,830	17.6%	8,971	15.5%
$35,000 to $49,999	4,601	11.9%	6,674	11.5%
$50,000 to $74,999	7,210	18.6%	11,194	19.3%
$75,000 to $149,999	12,820	33.1%	20,694	35.8%
$150,000 plus	2,135	5.5%	3,654	6.3%
Total	38,779	100%	57,851	100%
Median Income	***$72,533***		***$61,201***	
Change 2014-2020				
	No.	Pct.	No.	Pct.
Less than $15,000	-121	-2%	-194	-3%
$15,000 to $34,999	-2,093	-23%	-3,052	-25%
$35,000 to $74,999	-912	-17%	-1,357	-17%
$75,000 to $149,999	4,069	46%	6,436	55%
$150,000 plus	630	42%	1,102	43%
Total	1,573	4%	2,934	5%
Change in Med. Inc.	***$14,672***	***25%***	***$9,844***	***19%***

Sources: U.S. Census Bureau, ESRI Inc.; Maxfield Research Inc.

The table shows that the Market Area had an estimated median household income of $57,861. Market Area household incomes are projected to grow over the next six years by $14,672 to a median income of $72,533. This is an average annual increase of 3.8% per year, which is higher than the current U.S. rate of inflation which has averaged 2.4% annually over the past 10 years.

In 2014, the estimated median income in the La Crosse MSA was lower than in the Market Area, $51,358. The median income in the La Crosse MSA is projected to increase to $61,201 by 2020 with an annual rate of increase of 3.0%.

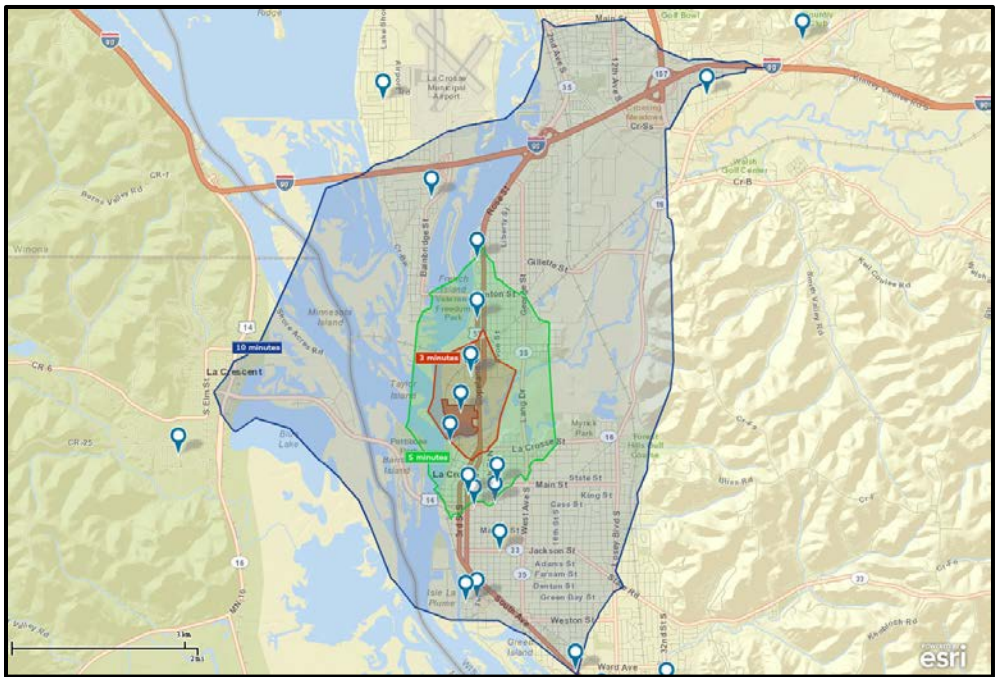
The largest percentage of households in the Market Area has incomes of between $15,000 and $34,999 (23.8%), followed closely by households with incomes between $75,000 and $149,999 (23.4%).

In the La Crosse MSA, the largest percentage of households has incomes of between $75,000 and $149,999 as of 2014 followed closely by households with incomes of between $15,000 and $34,999 (21.7%) and households with incomes of between $50,000 and $74,999 (21.2%). Over the next six years, the proportion of households with incomes of between $75,000 and $149,999 is expected to increase to 35.8%.

Residential Rentals and Home Sales

Rental rates for apartments and condos in the La Crosse area vary widely, from a low of $363 per month for a one-bedroom unit at Wedgewood Commons (1935 Miller St., La Crosse) to a high of $2,200 for a two-bedroom penthouse unit at River Center Plaza Apartments (415 King St., La Crosse). Average monthly rental rates are $618 per month for studio apartments, $674 per month for one-bedroom units, $858 per month for two-bedroom units and $1,239 per month for three-bedroom units in the greater La Crosse area.

Residential Rentals within 10 minutes of the Site



Maxfield Research Inc.

Within a ten-minute drive of Riverside North (the Site), average rental rates are all higher than in the greater La Crosse area with average rental rates at $640 per month for studio units, $825 per month for one-bedroom units, $1,035 per month for two-bedroom units and $1,521 per month for three-bedroom units.

Tables 9 and 10 display annual home sales data for the City of La Crosse and La Crosse County from 2008 to March 2014. The tables show that the rate of annual home appreciation fluctuated each year between 2008 and 2013. This period includes the housing market slowdown that occurred during the Great Recession. Home sales activity decreased between 2009 and 2011, then rose again after 2011.

TABLE 9
RESALE OF SINGLE-FAMILY HOMES
LA CROSSE WI
2008 THROUGH 2013

	Resale Trends			
	# of Sales	Median Price	Pct. Change	Average DOM
2008	425	$113,500	---	85
2009	488	$111,750	-1.5%	78
2010	446	$115,000	2.9%	85
2011	388	$114,750	-0.2%	85
2012	494	$114,950	0.2%	88
2013	575	$115,900	0.8%	71
*March 2014	82	$112,250	-3.1%	97
Change 2006-2013	**26.1%**	**2.1%**		

Sources: La Crosse Area Market Updates; Maxfield Research Inc.

TABLE 10
RESALE OF SINGLE-FAMILY HOMES
LA CROSSE COUNTY
2008 THROUGH 2013

	Resale Trends			
	# of Sales	Median Price	Pct. Change	Average DOM
2008	1,063	$147,000	---	87
2009	1,083	$137,250	-6.6%	83
2010	1,032	$140,000	2.0%	82
2011	909	$141,900	1.4%	76
2012	1,202	$148,000	4.3%	84
2013	1,325	$143,250	-3.2%	68
*March 2014	179	$147,900	3.2%	86
Change 2008-2013	**19.8%**	**-2.6%**		

Sources: La Crosse Area Market Updates; Maxfield Research Inc.

Commercial and Industrial Real Estate

As of April 2014, there were 38 industrial, office, or retail properties available for lease or sale in the Market Area. Twenty-one properties are available for lease and 20 are available for sale with a total of 393,217 square feet available in the Market Area. The average lease rate for industrial property is $3.90 per square foot; for office property, the average lease rate is $10.63 per square foot and for retail property, the average lease rate is $9.17 per square foot. Properties that could be utilized either as office or retail space had an average lease rate of $8.89 per square foot. The average sale price for industrial property is $7.71 per square foot. The average sale price for office properties was $19.25 per square foot, $6.90 per square foot for retail properties and properties that could be used for either office or retail were $21.61 per square foot.

As of April 2014, there were 22 properties available for lease or sale within a ten-minute drive of the Riverside North Site. Eighteen properties were available for lease and 14 were available for sale with a total of 259,171 square feet of space available. There are no available industrial properties for lease. The average lease rate was $9.29 per square foot for office properties, $11.75 per square foot for retail properties and $8.29 per square foot for properties that could be used as either office or retail.

The average sale price was $15.15 per square foot for industrial property, $7.73 per square foot for retail properties and $21.61 for properties that could be used as either office or retail space. There is one property that was for-sale as an office property where the asking price was $70.19 per square foot. The property is located at 2018 State Road in LaCrosse.

Industrial, Office, or Retail Properties within 10 minutes of the Site

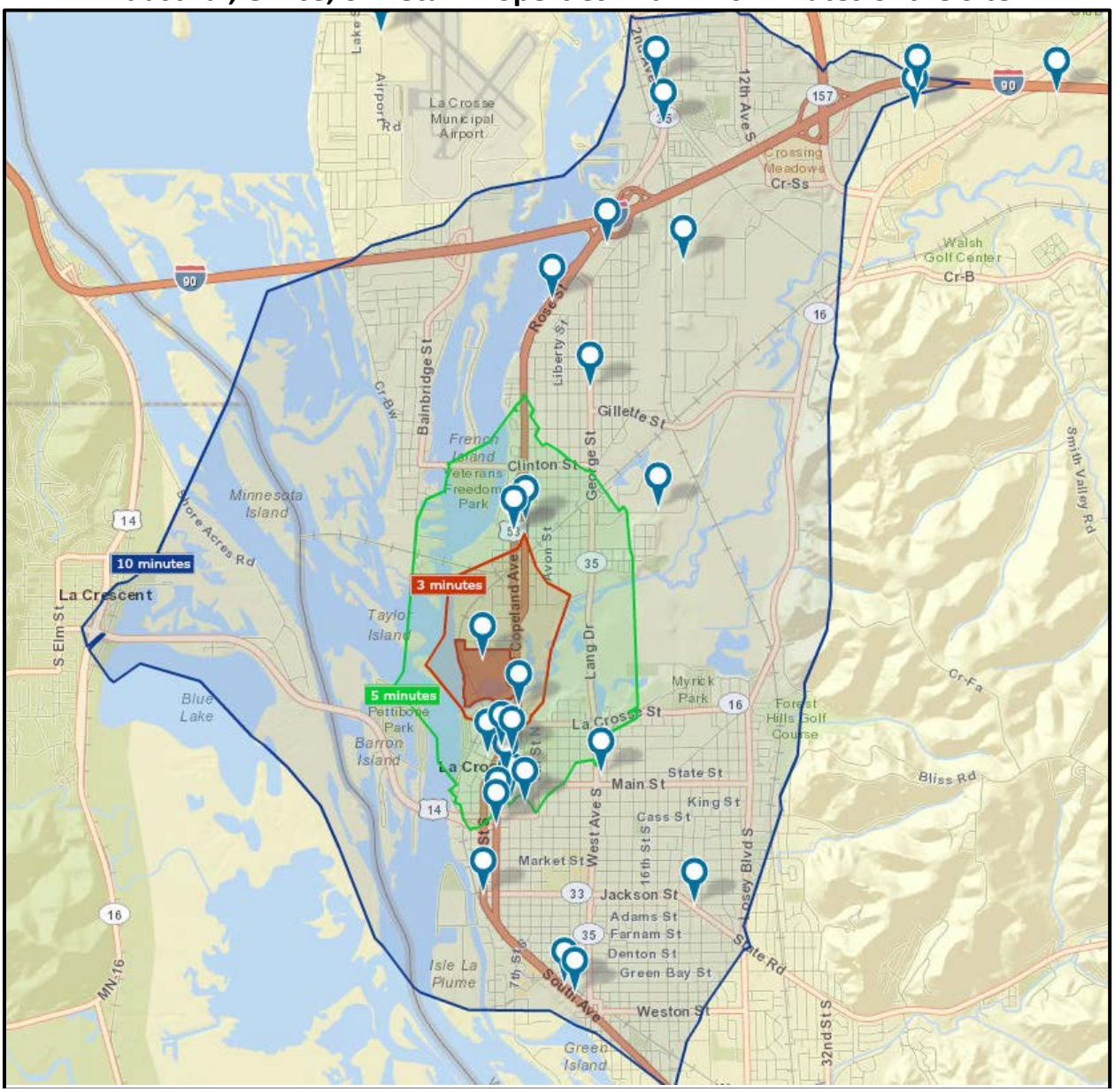


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TABLE 26
ACTIVELY MARKETING RETAIL/OFFICE/INDUSTRIAL AVAILABILITY
PRIMARY MARKET AREA
April 2014

Property Name/City	Address	Specific Use	Year Built	Bldg. Size	Avail. Sq. Ft.	Min. Div. Sq. Ft.	Max. Contig. Sq. Ft.	Pricing List Price I Lease Rate		Lease Type	Tenancy
Greater La Crosse Area											
King on 5th	505 King St.	Office		117,266	117,266	200	8,300		$13.00		Multi-Tenant
--	58 Copeland Ave.	Office		3,000	3,000	3,000					Single-Tenant
Historic La Crosse Footwear Bldg.	1401 St. Andrew St.	Office/Industrial/Whse/Dist.		40,000	40,000	40,000					Single-Tenant
--	4647 Mormon Coulee Rd.	CBRF		4,400	4,400	4,400		$697,500		NET	Single-Tenant
--	518 State St.	Office		8,449	8,449						Multi-Tenant
Mormon Coulee Development Site	3305 Mormon Coulee Rd.	Office		52,000	52,000			$575,000	$15.00		
Losey Retail Center	1416 S Losey Blvd.	Retail	2007	2,000	2,000	2,000			$25.00		Single-Tenant
Three Rivers Plaza	40 Copeland Ave.	Retail			975	975					Single-Tenant
Three Rivers Plaza	40 Copeland Ave.	Retail			1,240	1,240					Single-Tenant
Coulee Region Business Incubator	1100 Kane St.	Office / Mixed Use		35,000	35,000	120					Multi-Tenant
Truck Repair Facility	1809 St James St.	Industrial		10,000	10,000			$975,000			Single-Tenant
Former Hostess Warehouse	2919 East Ave.	Industrial			10,600						Multi-Tenant
Central States Warehouse	1629 Caledonia St.	Office/Mixed Use/Whse/Dist.			250000	100,000	250,000				Multi-Tenant
	215 Pine St.	Industrial/Whse/Dist.		108,181	108,181						Multi-Tenant
	3145 Airport Rd.	Industrial/Whse/Dist.		56,200	56,200						
	3209 Airport Rd.	Industrial/Whse/Dist.		48,000	48,000	24,000					
	2721 Hemstock St.	Industrial/Whse/Dist.		34,000	34,000	14,000					Multi-Tenant
	1404 Green Bay St.	Industrial/Whse		15,000	15,000						
	110 Causeway Blvd.	Industrial/Whse		10,218	10,218						
	2967 Airport Rd.	Whse			5,000						Single-Tenant
	1500 Green Bay St.	Mixed Use/Whse			900						
	1104 Venture Pl.	Whse/Dist.			3,600						
	N5549 County Hwy Z.	Industrial/Whse/Dist.		250,000	250,000						
	302 Pearl St.	Retail									
	47 Copeland Ave.	Retail			13,000						
JJAWC Building	525 2nd St. N.	Office/Residential		158,300	158,300						Multi-Tenant
Grand River Station	315 S. 3rd St.	Retail/Commercial	2010		12,408	1,000	7,526				
Trust Point Bldg.	230 Front St.	Office			3,520						Single-Tenant
Trust Point Bldg.	230 Front St.	Office			6,177						Single-Tenant
Times Square Bldg.	700 3rd St. N.	Office	1980			500	4,000				Multi-Tenant
	112 5th St. S.	Retail			7,500					NNN	Multi-Tenant
	210 7th St. S.	Office			7,000						Multi-Tenant
Historic Batavian Bldg.	319 Main St.	Office/Retail					4,000				Multi-Tenant
	311 Main St.	Office			5,400	1,800	1,800				Multi-Tenant
La Crosse Plow Bldg.	300 2nd St. N.	Office			1,270						Multi-Tenant
La Crosse Plow Bldg.	300 2nd St. N.	Office			3,726						Multi-Tenant
	225 3rd St. N.	Office			2,500						
	6th and King St.	Office							$400.00		Multi-Tenant

(continued)

TABLE 26 (continued)
ACTIVELY MARKETING RETAIL/OFFICE/INDUSTRIAL AVAILABILITY
PRIMARY MARKET AREA
April 2014

Property Name/City	Address	Specific Use	Year Built	Bldg. Size	Avail. Sq. Ft.	Min. Div. Sq. Ft.	Max. Contig. Sq. Ft.	Pricing List Price I Lease Rate	Lease Type	Tenancy
The Exchange Bldg.	205 5th Ave. S.	Office				200	1,500			Multi-Tenant
	719 Copeland Ave.	Whse/Residential						$375,000		
	1501 Saint Andrew St.	Office				500	60,000			Multi-Tenant
	2615 E. Ave. S.	Office/Whse		66,949						
	1910 Ward Ave.	Retail		27,000						Multi-Tenant
	3400 Losey Blvd S.	Commercial		16,300	16,300					
Valley View Mall	3800 State Hwy 16	Office/Retail				590	4,700			
Jackson Plaza	Jackson and 19th St.	Commercial			6,600					
Village Shopping Center		Retail								Multi-Tenant
	109 W Legion St.	Commercial/Industrial/Retail								
	N6411 County Hwy Z.	Commercial/Industrial/Retail								
Holmen Square Mall		Commercial/Retail			11,200					
Holmen Square Mall		Commercial/Retail			4,800					
Holmen Square Mall		Commercial/Retail			1,500					
	306 Sand Lake Rd.	Retail/Office			5,400					
	704 Sand Lake Road	Office			1,500					Single-Tenant
	611 Main St.	Office								Multi-Tenant
2nd Avenue, Onalaska		Commercial			4,500			$900,000		Single-Tenant
	548 Lester Ave.	Office			6,000					
Crossing Meadows Shopping Center	1230 Crossing Meadows Dr.	Retail				1,050	2,635			
Riders Club Road, Onalaska		Office			1,450					
Riders Club Road, Onalaska		Office			800					
	1857 Sand Lake Rd.	Office			980					
	1857 Sand Lake Rd.	Office Whse			930					
Hwy 35, next to Dairy Queen and Interstate 90.		Office			614					

Note: CBRF=Community Based Residential Facility (Assisted Living or Supporting Living)

Sc Sources: Wisconsin Area Association of Realtors, Maxfield Research Inc.

Residential Construction Trends

Table 12 shows residential construction trends in the communities of LaCrosse, Onalaska and Holmen in the LaCrosse area. Most new construction in Onalaska and Holmen were single-family detached homes. Conversely, most of the new construction in LaCrosse were 5+ family structures, there were 497 single-family homes as compared to 506 units in 5+ family structures.

TABLE 12
NUMBER OF UNITS FROM BUILDING PERMITS ISSUED
2000 through 2013

	LaCrosse				Onalaska				Holmen				
Year	SF	Duplex	3-4 Family	5+ Family	SF	Duplex	3-4 Family	5+ Family	SF	Duplex	3-4 Family	5+ Family	Total
2000	29	16	46	11	76	34	0	6	84	8	0	16	326
2001	40	4	44	0	121	20	0	0	69	4	0	31	333
2002	43	10	4	46	128	10	0	0	74	4	0	32	351
2003	47	10	21	23	90	26	0	32	82	0	0	0	331
2004	49	2	0	90	119	6	0	0	82	0	0	0	348
2005	46	2	4	21	117	0	7	7	87	0	0	0	291
2006	44	2	19	11	71	8	4	77	95	0	0	0	331
2007	39	6	7	53	59	2	3	0	105	0	0	0	274
2008	26	0	4	46	31	2	0	10	74	0	0	0	193
2009	37	0	0	0	41	0	0	0	40	0	0	0	118
2010	23	10	0	0	36	0	0	60	49	0	0	0	178
2011	32	0	0	32	65	8	0	0	36	0	0	0	173
2012	26	4	3	0	37	2	0	0	60	0	0	0	132
2013	16	2	3	173	70	2	0	0	69	0	0	0	335
	497	68	155	506	1,061	120	14	192	1,006	16	0	79	3,714

Sources: US Census Bureau; Maxfield Research Inc.

Commuting Patterns of Area Workers

Proximity to employment is often a primary consideration when choosing where to live, particularly for younger and lower income households since transportation costs often account for a greater proportion of their budgets. Table 13 highlights the commuting patterns of workers in the La Crosse MSA based on data from the U.S. Census Bureau Longitudinal Employer-Household Dynamics (LEHD) program for 2011, the most recent data available.

The table illustrates that 23.7% of workers that live in LaCrosse city work in the MSA. Not shown on the table, 12,713 workers both live and work in the City of LaCrosse.

Nearly 50% of workers employed in the area reside in locations either outside the MSA or in other communities in the MSA. This documents the LaCrosse MSA as a regional center that attracts workers from a broad geographic area.

Approximately 56.8% of the workers in the La Crosse MSA reside within 10 miles of their place of employment while 19.2% travel from 10 to 24 miles. Roughly 7.4% of area workers commute from a distance of 25 to 50 miles while another 16.6% come from more than 50 miles away.

TABLE 12
COMMUTING PATTERNS
LA CROSSE MSA
2011

Home Destination			Work Destination		
Place of Residence	**Count**	**Share**	**Place of Employment**	**Count**	**Share**
La Crosse city, WI	15,649	23.7%	La Crosse city, WI	30,237	50.2%
Onalaska city, WI	5,895	8.9%	Onalaska city, WI	5,143	8.5%
Holmen village, WI	3,242	4.9%	West Salem village, WI	1,937	3.2%
La Crescent city, MN	1,796	2.7%	Holmen village, WI	1,274	2.1%
French Island CDP, WI	1,733	2.6%	Winona city, MN	1,253	2.1%
West Salem village, WI	1,624	2.5%	Caledonia city, MN	1,209	2.0%
Caledonia city, MN	1,041	1.6%	Madison city, WI	1,077	1.8%
Sparta city, WI	785	1.2%	Eau Claire city, WI	946	1.6%
Brice Prairie CDP, WI	749	1.1%	La Crescent city, MN	833	1.4%
Winona city, MN	550	0.8%	Sparta city, WI	708	1.2%
All Other Locations	32,942	49.9%	All Other Locations	15,559	25.9%
Distance Traveled			**Distance Traveled**		
Total Primary Jobs	66,006	100.0%	Total Primary Jobs	60,176	100.0%
Less than 10 miles	37,474	56.8%	Less than 10 miles	37,118	61.7%
10 to 24 miles	12,688	19.2%	10 to 24 miles	9,580	15.9%
25 to 50 miles	4,902	7.4%	25 to 50 miles	2,992	5.0%
Greater than 50 miles	10,942	16.6%	Greater than 50 miles	10,486	17.4%

Home Destination = Where workers live who are employed in the selection area
Work Destination = Where workers are employed who live in the selection area

Sources: US Census Bureau Local Employment Dynamics; Maxfield Research, Inc.

Just over 50% of all workers in the MSA work in LaCrosse proper. Nearly 14.0% of workers to the LaCrosse MSA work in Onalaska, West Salem village, Holmen village, Winona city and Caledonia city.

Nearly 61.7% of area resident workers travel less than 10 miles to their place of employment, while 15.9% have a commute distance from 10 to 24 miles. The remainder, 22.4%, have an average distance of 25 or more miles to work (one way).

Table 14 provides a summary of the inflow and outflow characteristics of the workers in the La Crosse MSA. Outflow reflects the number of workers living in the area but employed outside the MSA while inflow measures the number of workers that are employed in the MSA but live outside. Interior flow reflects the number of workers that both live and work in the area.

As the table shows, the number of workers leaving the area for employment (outflow) is very similar to the number of workers coming into the area (inflow). Roughly 16,100 residents leave the MSA for employment (outflow) while 21,930 workers come into the area (inflow), 44,076 workers live and work in the area. Most of the workers coming into area are age 30 to 54 and earn more than $1,251 per month. A portion of these commuters would be a target market for residential products on the Riverside North site.

TABLE 14
COMMUTING INFLOW/OUTFLOW CHARACTERISTICS
LA CROSSE MSA
2011

	Outflow		Inflow		Interior Flow	
City Total	**16,100**	**100.0%**	**21,930**	**100.0%**	**44,076**	**100.0%**
By Age						
Workers Aged 29 or younger	5,031	31.2%	6,920	31.6%	10,488	23.8%
Workers Aged 30 to 54	8,137	50.5%	10,902	49.7%	24,017	54.5%
Workers Aged 55 or older	2,932	18.2%	4,108	18.7%	9,571	21.7%
By Monthly Wage						
Workers Earning $1,250 per month or less	4,457	27.7%	6,525	29.8%	9,991	22.7%
Workers Earning $1,251 to $3,333 per month	6,257	38.9%	8,548	39.0%	18,237	41.4%
Workers Earning More than $3,333 per month	5,386	33.5%	6,857	31.3%	15,848	36.0%
By Industry						
"Goods Producing"	2,944	18.3%	3,220	14.7%	7,623	17.3%
"Trade, Transportation, and Utilities"	4,994	31.0%	6,046	27.6%	7,351	16.7%
"All Other Services"*	8,162	50.7%	12,664	57.7%	29,102	66.0%

*includes the following sectors: Information, Financial Activities, Professional & Business Services, Education & Health Services, Leisure & Hospitality, Other Services, and Public Administration

Sources: US Census Bureau Local Employment Dynamics; Maxfield Research, Inc.

Retail Market Analysis

Introduction

This section presents and analyzes information relating to the condition of the retail market and the potential for future retail development in the Market Area. The potential for new retail development in LaCrosse and at the Riverside North Site is influenced by overall market conditions in the Trade Area, also referred to as the Market Area. The Trade Area for Riverside North is considered to be LaCrosse city, although customers that commute back and forth from outside of LaCrosse along Copeland Avenue and other drive-by traffic are also considered to be potential customers for commercial retail development at Riverside North.

Information analyzed in this section includes consumer expenditures of households in the Trade Area, a retail gaps analysis and a selected inventory of retail shopping centers in the area. Based on this information, calculations of the retail potential for the Riverside North property are presented.

Consumer Expenditure Patterns

Table 15 shows consumer expenditures for retail goods and services in LaCrosse in 2013, according to data obtained from ESRI, Inc. based on Consumer Expenditure Surveys from the Bureau of Labor Statistics. The table shows the average expenditures per household and the immediate surrounding area by product or service. In addition, a Spending Potential Index (SPI) is illustrated for comparison purposes. The SPI is based on households and represents the amount spent for a product or service relative to the national average of 100. An SPI of 115 shows that average annual expenditures by local consumers are 15% above the national average. The average expenditure reflects the average amount spent per household, while the total expenditure reflects the aggregate amount spent by all households in the area.

Consumer spending is influenced by market conditions and trends. In times of economic troubles, market conditions drive spending patterns, whereas in times of a booming economy consumer trends feature opportunity and convenience. Two-thirds of the national economy is driven by consumer spending. During the Recession, households decreased spending, increased savings, and reduced credit card debt as many households have been faced with job losses. In essence, when the housing market began its decline in 2007, consumer spending and consumer confidence followed.

The following are key points from Table 15.

- Overall, residents in the LaCrosse Metropolitan Area were estimated to have spent approximately $1.1 billion on retail goods and services in 2013, including housing, finance/insurance, and travel expenditures as well as vehicle purchases.

- Average annual expenditures (excluding the categories mentioned above) are estimated to be $16,927 per household in the LaCrosse Metropolitan Area.

- In nearly every product and service category, expenditures by LaCrosse Metro Area households slightly less than the national average.

- Housing expenses account for approximately 30% of total consumer expenditures in the LaCrosse Metropolitan Area with residents spending between 15% and 20% less than the national average.

- The roughly 55,000 households in the LaCrosse Area spent a total of $3.0 billion on retail expenditures in 2013. With the number of households projected to grow to 58,000 in 2020, they would generate an additional $51 million in expenditures annually, not factoring in inflation.

TABLE 15
HOUSEHOLD EXPENDITURES BY SELECTED PRODUCT TYPE
LACROSSE METROPOLITAN AREA
2013

Category	MSA Annual Expenditures Total ($000's)	MSA Annual Expenditures Average Per HH	Spending Potential Index to USA Market Area
Goods & Services			**Index**
Apparel & Services	82,042	1,329	59
Entertainment and Recreation	184,572	2,989	92
Nonprescription Drugs	7,057	114	92
Prescription Drugs	27,812	450	93
Eye Glasses & Contact Lenses	4,879	79	92
Personal Care Products	24,335	394	89
Child Care	23,163	375	85
School Books & Supplies	11,383	184	98
Smoking Products	29,508	478	98
Computer Hardware	11,228	182	89
Computer Software	1,076	17	88
Pets	65,801	587	110
Food			**Index**
Food at Home	281,152	4,554	90
Food Away from Home	175,098	2,836	89
Alcoholic Beverages	29,141	472	89
Non Alcoholic Beverages at Home	26,745	433	91
Home			**Index**
Home Mortgage Payment/Rent	500,763	8,111	86
Maintenance & Remodeling Services	87,585	1,419	88
Maintenance & Remodeling Materials	17,068	276	95
Utilities	283,534	4,592	91
Household Furnishings, Equipment, & Operations			**Index**
Household Textiles	5,760	93	88
Furniture	26,686	432	90
Rugs	1,363	22	87
Major Appliances	15,502	251	91
Small Appliances	2,533	41	92
Housewares	3,579	58	78
Luggage	463	8	84
Telephone & Accessories	2,668	43	81
Lawn & Garden	23,788	385	91
Moving/Storage/Freight Express	3,557	58	88
Housekeeping Supplies	39,998	648	91
Financial & Insurance			**Index**
Investments	86,124	1,395	67
Vehicle Loans	216,925	3,513	92
Owners & Renters Insurance	27,762	450	91
Vehicle Insurance	65,801	1,066	90
Life/Other Insurance	24,553	398	91
Health Insurance	140,001	2,268	91

CONTINUED

TABLE 15
(CONTINUED)
HOUSEHOLD EXPENDITURES BY SELECTED PRODUCT TYPE
LACROSSE METROPOLITAN AREA
2013

Category	Annual Expenditures Total ($000's)	Annual Expenditures Average Per HH	Spending Potential Index to USA Market Area
Transportation			**Index**
Vehicle Purchases (Net Outlay)	204,174	3,307	92
Gasoline and Motor Oil	177,026	2,867	93
Vehicle Maintenance/Repair	60,753	984	90
Travel			**Index**
Airline Fares	23,632	383	83
Lodging	22,848	370	87
Vehicle Rental	1,707	28	82
Food & Drink	23,581	382	87
Summary			
Goods & Services	472,856	6,593	
Food	512,136	8,295	
Home	888,949	14,398	
Household	125,896	2,039	
Financial and Insurance	561,166	9,089	
Transportation	441,953	7,158	
Travel	71,767	1,162	
Total	***3,074,723***	***48,735***	

Note: The Spending Potential Index is based on households and represents the amount spent for a product or service relative to the national average of 100.

Sources: ESRI; Maxfield Research Inc.

- Retail categories that exhibit the highest expenditures among LaCrosse Area households in comparison to what is spent on average by national households are:

Pets	110 percent
Maintenance and Remodeling Materials	95 percent
Entertainment and Recreation	92 percent
Prescription and Non-Prescription Drugs	93 percent
Eyeglasses and Contact Lenses	92 percent
Higher education Expenses	98 percent
Small appliances	91 percent
Lawn and garden	91 percent

Housekeeping Supplies	91 percent
Food at Home	90 percent

In considering potential uses for commercial space on the subject Site, items that would primarily take advantage of the high traffic counts on Copeland and items at the high end of the expenditure spectrum such as specialized pet supplies and services and items associated with entertainment and/or recreation would complement Downtown businesses and enhance the retail mix near the Downtown.

Retail Demand Potential and Leakage

Tables 16 and 17 present retail sales by retail category for a smaller cluster geographic area of census tracts surrounding Riverside North and a comparison with the larger LaCrosse Metropolitan Area. The substantial draw of the larger LaCrosse Metropolitan Area is shown by the amount of retail surplus in most of the retail categories. The Greater LaCrosse Area serves as a regional center for the surrounding area with customers driving into LaCrosse from greater distances to shop.

Table 16 shows detail for LaCrosse census tracts. Table 17 shows detail for the Greater LaCrosse Metropolitan Area. The sales information is from ESRI Inc. based on household counts from the U.S. Census Bureau. This information lists retail demand (potential sales), retail supply to consumers (retail sales) and provides a picture of the gap between the area's retail supply and demand. A positive value represents "leakage" of retail opportunity to stores outside of the Trade Area, while a negative value represents a surplus of retail sales, where customers are drawn to area retailers from outside the Trade Area. The following are key points of the retail demand potential.

- In 2013, the area designated by census tracts shows retail gaps in several retail categories including:
    - General Merchandise Stores
    - Clothing and Clothing Accessories Stores
    - Electronics & Appliance Stores
    - Non-Store Retailers

TABLE 16
RETAIL DEMAND POTENTIAL AND LEAKAGE
LACROSSE AREA (CENSUS TRACTS)
2013

Industry Group (NAICS Code)	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap (Demand - Supply)	Surplus/Leakage Factor	Number of Businesses
SUMMARY					
Total Retail Trade and Food & Drink (NAICS 44-45, 722)	$185,005,360	$398,083,914	($213,078,554)	(36.5)	271
Total Retail Trade (NAICS 44-45)	$166,312,462	$323,137,881	($156,825,419)	(32.0)	177
Total Food & Drink (NAICS 722)	$18,692,898	$74,946,033	($56,253,135)	(60.1)	94
EXPENDITURE TYPE					
Motor Vehicle & Parts Dealers (NAICS 441)	$31,127,113	$91,011,373	($59,884,260)	(49.0)	17
Automobile Dealers (NAICS 4411)	$27,075,327	$80,365,380	($53,290,053)	(49.6)	9
Other Motor Vehicle Dealers (NAICS 4412)	$1,818,224	$4,789,583	($2,971,359)	(45.0)	3
Auto Parts, Accessories, and Tire Stores (NAICS 4413)	$2,233,562	$10,110,388	($7,876,826)	(63.8)	5
Furniture & Home Furnishings Stores (NAICS 442)	$3,399,163	$4,789,583	($1,390,420)	(17.0)	4
Furniture Stores (NAICS 4421)	$2,216,699	$3,637,354	($1,420,655)	(24.3)	2
Home Furnishings Stores (NAICS 4422)	$1,182,464	$1,152,229	$30,235	1.3	2
Electronics & Appliance Stores (NAICS 443/NAICS 4431)	$5,483,407	$1,314,592	$4,168,815	61.3	4
Bldg Materials, Garden Equip. & Supply Stores (NAICS 444)	$4,747,759	$45,014,414	($40,266,655)	(80.9)	12
Building Material and Supplies Dealers (NAICS 4441)	$3,915,711	$44,771,198	($40,855,487)	(83.9)	11
Lawn and Garden Equipment and Supplies Stores (NAICS 4442	$832,048	$470,538	$361,510	54.8	1
Food & Beverage Stores (NAICS 445)	$28,150,126	$43,822,776	($15,672,650)	(21.8)	19
Grocery Stores (NAICS 4451)	$26,170,928	$42,216,187	($16,045,259)	(23.5)	12
Specialty Food Stores (NAICS 4452)	$607,191	$470,538	$136,653	12.7	6
Beer, Wine, and Liquor Stores (NAICS 4453)	$1,372,007	$1,136,051	$235,956	9.4	1
Health & Personal Care Stores (NAICS 446/NAICS 4461)	$13,913,524	$25,670,407	($11,756,883)	(29.7)	10
Gasoline Stations (NAICS 447/NAICS 4471)	$21,115,964	$66,384,012	($45,268,048)	(61.1)	8
Clothing and Clothing Accessories Stores (NAICS 448)	$9,242,127	$4,740,412	$4,501,715	32.2	18
Clothing Stores (NAICS 4481)	$6,209,574	$3,266,450	$2,943,124	31.1	12
Shoe Stores (NAICS 4482)	$1,628,284	$322,985	$1,305,299	66.9	2
Jewelry, Luggage, and Leather Goods Stores (NAICS 4483)	$1,404,269	$1,150,977	$253,292	9.9	4
Sporting Goods, Hobby, Book, and Music Stores (NAICS 451)	$4,231,538	$11,367,870	($7,136,332)	(45.7)	25
Sporting Goods/Hobby/Musical Instrument Stores (NAICS 451	$3,031,546	$9,532,353	($6,500,807)	(51.7)	18
Book, Periodical, and Music Stores (NAICS 4512)	$1,199,992	$1,835,517	($635,525)	(20.9)	7
General Merchandise Stores (NAICS 452)	$27,131,636	$549,736	$26,581,900	96.0	2
Department Stores Excluding Leased Depts. (NAICS 4521)	$13,498,205	$0	$13,498,205	100.0	0
Other General Merchandise Stores (NAICS 4529)	$13,633,431	$549,736	$13,083,695	92.2	2
Miscellaneous Store Retailers (NAICS 453)	$3,683,963	$6,085,115	($2,401,152)	(24.6)	53
Florists (NAICS 4531)	$170,149	$381,033	($210,884)	(38.3)	3
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	$1,143,294	$812,739	$330,555	16.9	12
Used Merchandise Stores (NAICS 4533)	$770,019	$2,565,303	($1,795,284)	(53.8)	14
Other Miscellaneous Store Retailers (NAICS 4539)	$1,600,501	$2,326,040	($725,539)	(18.5)	24
Nonstore Retailers (NAICS 454)	$14,086,142	$1,271,627	$12,814,515	83.4	5
Electronic Shopping and Mail-Order Houses (NAICS 4541)	$11,736,852	$768,084	$10,968,768	87.7	1
Vending Machine Operators (NAICS 4542)	$702,126	$330,534	$371,592	36.0	1
Direct Selling Establishments (NAICS 4543)	$1,647,164	$173,009	$1,474,155	81.0	3
Food Services & Drinking Places (NAICS 722)	$18,692,898	$74,946,033	($56,253,135)	(60.1)	94
Full-Service Restaurants (NAICS 7221)	$7,080,646	$15,325,611	($8,244,965)	(36.8)	20
Limited-Service Eating Places (NAICS 7222)	$9,432,017	$36,479,718	($27,047,701)	(58.9)	24
Special Food Services (NAICS 7223)	$821,217	$8,406,554	($7,585,337)	(82.2)	8
Drinking Places - Alcoholic Beverages (NAICS 7224)	$1,359,018	$14,734,150	($13,375,132)	(83.1)	42

Note: All figures quoted in 2010 dollars. Supply (retail sales) estimates sales to consumers by establishments, sales to businesses are excluded. Demand (retail potential) estimates the expected amout spent by consumers at a retail establishment. Leakage/Surplace factor measures the relationship between supply and demand and ranges from +100 (total leakage) to -100 (total surplus). A positive value represents "leakage" of retail opportunity outlide the trade area. A negative value represents a surplus of retail sales, a market where customers are drawn in from outside the trade area.

Sources: ESRI; Maxfield Research Inc.

- Highest leakage in retail sales occurs in General Merchandise Stores, Clothing and Clothing Accessories Stores, Electronics and Appliances Stores. Limited surplus is indicated in Food and Beverage Stores, Health and Personal Care Stores, Furniture and Home Furnishings Stores. Categories with the highest leakage represent the strongest potential to capture sales back into the area.

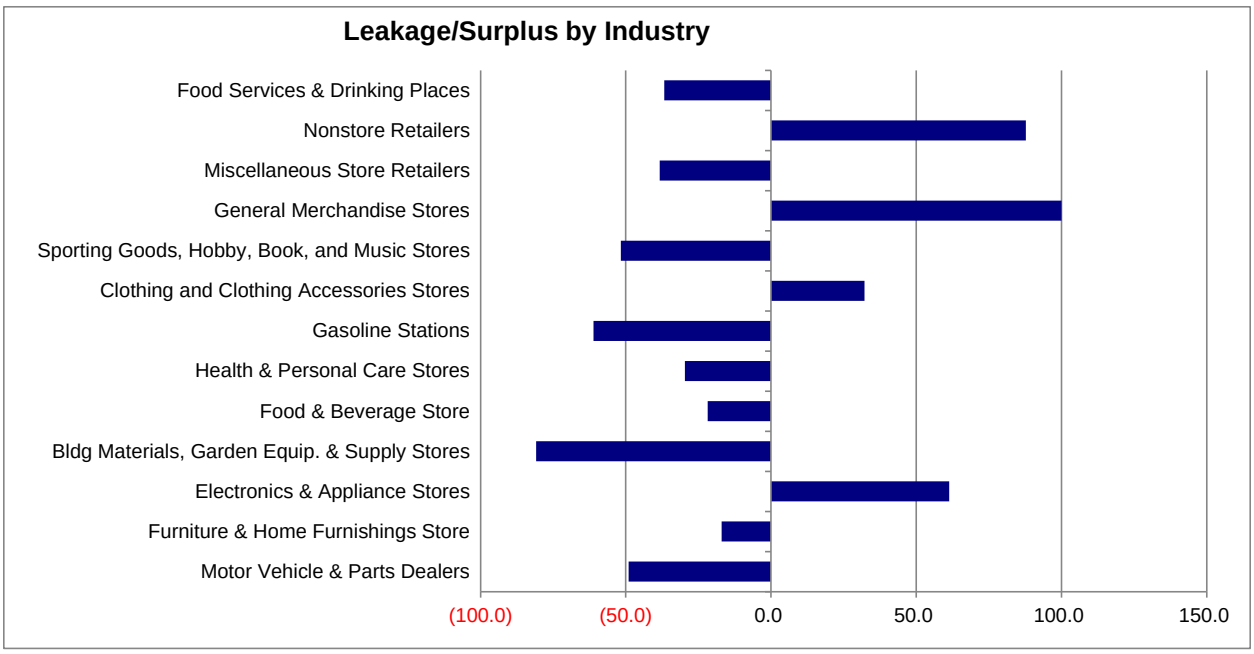


Table 17 shows similar information for the LaCrosse Metropolitan Area as a whole.

TABLE 17
RETAIL DEMAND POTENTIAL AND LEAKAGE
LACROSSE METROPOLITAN AREA
2013

Industry Group (NAICS Code)	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap (Demand - Supply)	Surplus/Leakage Factor	Number of Businesses
SUMMARY					
Total Retail Trade and Food & Drink (NAICS 44-45, 722)	$1,363,043,075	$1,649,058,026	($286,014,951)	(9.5)	999
Total Retail Trade (NAICS 44-45)	$1,232,545,074	$1,464,437,349	($231,892,275)	(8.6)	765
Total Food & Drink (NAICS 722)	$130,498,001	$184,620,677	($54,122,676)	(17.2)	234
EXPENDITURE TYPE					
Motor Vehicle & Parts Dealers (NAICS 441)	$235,325,665	$194,600,060	$40,725,605	9.5	62
Automobile Dealers (NAICS 4411)	$203,108,644	$157,670,084	$45,438,560	12.6	28
Other Motor Vehicle Dealers (NAICS 4412)	$15,499,636	$33,798,280	($18,298,644)	(37.1)	15
Auto Parts, Accessories, and Tire Stores (NAICS 4413)	$16,717,385	$24,822,805	($8,105,420)	(19.5)	19
Furniture & Home Furnishings Stores (NAICS 442)	$25,085,834	$33,798,280	($8,712,446)	(14.8)	60
Furniture Stores (NAICS 4421)	$15,851,189	$16,687,418	($836,229)	(2.6)	24
Home Furnishings Stores (NAICS 4422)	$9,234,645	$17,110,862	($7,876,217)	(29.9)	36
Electronics & Appliance Stores (NAICS 443/NAICS 4431)	$38,236,031	$43,702,938	($5,466,907)	(6.7)	30
Bldg Materials, Garden Equip. & Supply Stores (NAICS 444)	$42,912,071	$95,417,218	($52,505,147)	(38.0)	64
Building Material and Supplies Dealers (NAICS 4441)	$35,319,892	$90,489,164	($55,169,272)	(43.9)	55
Lawn and Garden Equipment and Supplies Stores (NAICS 4442	$7,592,179	$4,928,054	$2,664,125	21.3	9
Food & Beverage Stores (NAICS 445)	$201,780,523	$269,436,264	($67,655,741)	(14.4)	77
Grocery Stores (NAICS 4451)	$186,207,821	$234,894,368	($48,686,547)	(11.6)	48
Specialty Food Stores (NAICS 4452)	$4,398,800	$19,790,642	($15,391,842)	(63.6)	21
Beer, Wine, and Liquor Stores (NAICS 4453)	$11,173,902	$14,751,254	($3,577,352)	(13.8)	8
Health & Personal Care Stores (NAICS 446/NAICS 4461)	$107,858,598	$78,829,758	$29,028,840	15.5	56
Gasoline Stations (NAICS 447/NAICS 4471)	$151,842,323	$256,026,861	($104,184,538)	(25.7)	27
Clothing and Clothing Accessories Stores (NAICS 448)	$63,422,350	$114,026,861	($50,604,511)	(28.5)	82
Clothing Stores (NAICS 4481)	$43,263,418	$98,685,469	($55,422,051)	(39.0)	58
Shoe Stores (NAICS 4482)	$11,061,558	$8,841,621	$2,219,937	11.2	12
Jewelry, Luggage, and Leather Goods Stores (NAICS 4483)	$9,097,374	$6,499,771	$2,597,603	16.7	12
Sporting Goods, Hobby, Book, and Music Stores (NAICS 451)	$28,768,406	$54,334,722	($25,566,316)	(30.8)	86
Sporting Goods/Hobby/Musical Instrument Stores (NAICS 451	$21,882,868	$41,396,024	($19,513,156)	(30.8)	70
Book, Periodical, and Music Stores (NAICS 4512)	$6,885,538	$12,938,698	($6,053,160)	(30.5)	16
General Merchandise Stores (NAICS 452)	$203,289,666	$268,822,892	($65,533,226)	(13.9)	22
Department Stores Excluding Leased Depts. (NAICS 4521)	$97,792,398	$194,701,476	($96,909,078)	(33.1)	11
Other General Merchandise Stores (NAICS 4529)	$105,497,268	$74,121,416	$31,375,852	17.5	11
Miscellaneous Store Retailers (NAICS 453)	$27,442,973	$33,506,502	($6,063,529)	(9.9)	171
Florists (NAICS 4531)	$1,598,166	$2,135,105	($536,939)	(14.4)	11
Office Supplies, Stationery, and Gift Stores (NAICS 4532)	$8,117,709	$8,443,250	($325,541)	(2.0)	52
Used Merchandise Stores (NAICS 4533)	$4,715,454	$5,271,189	($555,735)	(5.6)	32
Other Miscellaneous Store Retailers (NAICS 4539)	$13,011,644	$17,656,958	($4,645,314)	(15.1)	76
Nonstore Retailers (NAICS 454)	$106,580,634	$21,270,294	$85,310,340	66.7	28
Electronic Shopping and Mail-Order Houses (NAICS 4541)	$88,220,654	$9,338,339	$78,882,315	80.9	8
Vending Machine Operators (NAICS 4542)	$4,809,504	$687,065	$4,122,439	75.0	3
Direct Selling Establishments (NAICS 4543)	$13,550,476	$11,244,890	$2,305,586	9.3	17
Food Services & Drinking Places (NAICS 722)	$130,498,001	$184,620,677	($54,122,676)	(17.2)	234
Full-Service Restaurants (NAICS 7221)	$50,340,715	$45,479,831	$4,860,884	5.1	56
Limited-Service Eating Places (NAICS 7222)	$66,404,891	$101,063,807	($34,658,916)	(20.7)	68
Special Food Services (NAICS 7223)	$5,516,269	$9,329,707	($3,813,438)	(25.7)	11
Drinking Places - Alcoholic Beverages (NAICS 7224)	$8,236,126	$28,747,332	($20,511,206)	(55.5)	99

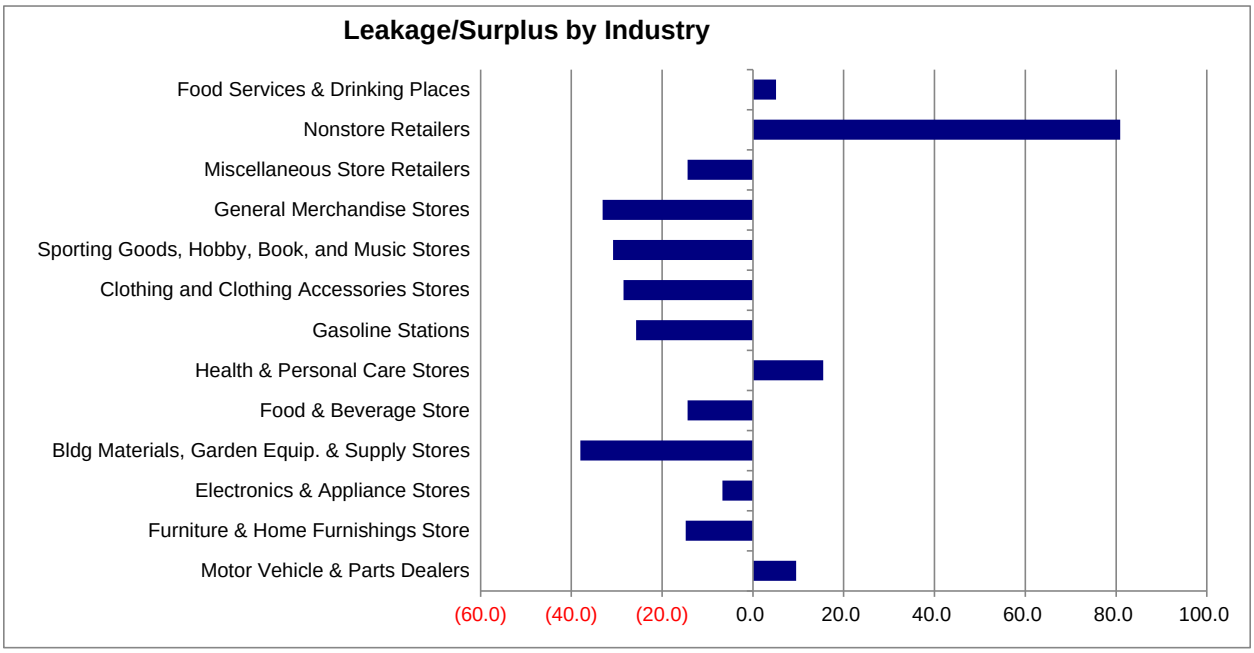
Note: All figures quoted in 2010 dollars. Supply (retail sales) estimates sales to consumers by establishments, sales to businesses are excluded. Demand (retail potential) estimates the expected amout spent by consumers at a retail establishment. Leakage/Surplace factor measures the relationship between supply and demand and ranges from +100 (total leakage) to -100 (total surplus). A positive value represents "leakage" of retail opportunity outlide the trade area. A negative value represents a surplus of retail sales, a market where customers are drawn in from outside the trade area.

Sources: ESRI; Maxfield Research Inc.

- In 2013, the LaCrosse MSA shows retail gaps in the following retail categories including:

  - Food Services and Drinking Places
  - Health and Personal Care Stores
  - NonStore Retailers

- Limited surplus is indicated in Electronics & Appliances Stores, Furniture and Home Furnishings Stores, Miscellaneous Store Retailers. Categories with leakage offer the strongest potential to capture sales back into the area.



Summary of Demographic and Economic Trends

During the past decade, the Greater LaCrosse Area experienced slow and steady growth and this is expected to continue to 2030. Population and households are expected to increase modestly above the previous rate due to Downtown living trends and the expected aggressive promotion of the attractiveness of the La Crosse Downtown and continued growth in suburban locations. Population, households, employment and construction are also expected to steadily increase with the recovery from the recession.

Residential and commercial property leasing also indicate the desirability of being in and near Downtown La Crosse. Residential rental rates for all categories are higher near the Downtown area. A majority of the commercial properties currently available are within a ten-minute drive of Riverside North and the average lease and for sale rates per square foot for these properties are also higher than the area average.

Although average household consumer expenditures in the LaCrosse area are generally somewhat lower than the average for the Nation as a whole, higher levels of expenditures are seen in pets, entertainment and recreation, lawn and garden, household supplies and building and remodeling expenditures.

The retail gaps analysis shows additional demand in Food Service and Drinking Places (i.e. full service restaurants), health and personal care stores and services and General Merchandise Retailers. Demographic and economic trends along with evaluation of residential and commercial market rates indicate opportunities for the redevelopment site.

Housing Demand

The projected household growth for the City of LaCrosse to 2020 is currently estimated at 2,940 households. Projected household growth for the Greater LaCrosse Area is estimated at 4,764 households. Between 2020 and 2030, the City of LaCrosse is projected to add another 760 households while the Greater LaCrosse Area is projected to increase by 2,335 households. In considering the development potential of the Site to 2020 and its location within the City of LaCrosse, we project that the subject project could capture approximately 8% to 10% of the projected growth of the City and the Greater LaCrosse Area which accounts for base line demand estimates of between 235 to 480 units of housing that would incorporate a variety of housing products including medium to high density and rental and ownership units. We anticipate at this time, that full build-out of the property will require a period of between eight and 12 years. Depending on the final configuration of structures and buildings on the Site, additional units could be accommodated on the Site if demand remains strong.

Housing products on the subject Site should consider a mix of rental and ownership and various price points including products that would appeal to young new households, young families and older adult households that may want to consider more maintenance-free alternatives.

As the plan develops and is refined, more specific development concepts will be defined that include building sizes, price points, unit sizes and mix and estimated development costs.

At this time, we estimate that rental rates would average about $1.25 to $1.30 per square foot for rental units (2014 dollars) and between $200,000 and $350,000 for mid-level ownership products. A portion of all housing products would be targeted to upper-income households.

Commercial Demand

Table 18 shows a demand estimate for commercial retail space on the Riverside North property. These figures will be refined as the plan is more fully-developed in terms of product locations and commercial retail spaces.

Based on existing and projected household growth, estimated leakage and average household expenditures for retail goods and services, we calculated an estimated retail demand potential that would be derived from resident households. Visitor households to the Site may support additional retail demand or may take the place of local resident households depending on the product or service provided.

Average retail sales per square foot are applied to the potential demand to determine the proportion of retail sales growth over time in the LaCrosse draw area. Considering the growth in retail demand potential in the Market Area and an estimated capture rate of from 15% to 20% of the total results in a range from 29,000 to 38,800 square feet of retail space up to 2025.

TABLE 18
PRELIMINARY DEMAND FOR RETAIL SPACE
NORTH RIVERSIDE DRAW AREA
2014 to 2020

		2014	2020	2025
Retail Demand from LaCrosse City				
Trade Area Households		22,608	24,374	24,665
(times) Annual Household Expenditures[1]	x	$16,927	$18,689	$20,634
(equals) Total Trade Area Expenditures	=	$382,685,616	$455,520,220	$508,935,601
(plus) Approx. % Leakage Outside the Trade Area[2]	+	20%	20%	15%
(equals) Leakage Outside of Trade Area	=	$76,537,123	$91,104,044	$76,340,340
(equals) Total Purchasing Power[3]		$306,148,493	$364,416,176	$432,595,261
(divided by) Average sales per Sq. Ft.	/	$250	$276	$305
(equals) Total Retail Space Demand (Sq. Ft.)	=	**1,224,594**	**1,320,348**	**1,418,345**
Growth in retail demand 2010 to 2020			193,751	
(times) % of Market Area demand growth capturable by Site	x	15%	-- to --	20%
(equals) Retail space supportable on subject Site (sq. ft.)	=	**29,063**	**-- to --**	**38,750**

[1] Excluding expenditures for home buying, finance & insurance, travel, vehicle sales.

[2] Leakage is the estimated amount of retail dollars spent outside LaCrosse City.

[3] 2014 purchasing power is equal to the estimated City retail sales based on information drawn from ESRI.

Note: The 2014 leakage factor is derived from subtracting the estimated retail sales in the LaCrosse draw area from the total retail expenditures by draw area residents.

Sources: ESRI; Maxfield Research, Inc.

Further analysis will refine specific locations, building sizes and lease rates for commercial sites on the Riverside North parcel. At this time, we estimate that lease rates for new retail space (food service) would average approximately $15.00 to $18.00 per square foot. The proposed retail component is shown on the plan at the gateway entrance to the property (signalized intersection).

August 29, 2014

MEMORANDUM

TO: Mr. Bob Kost
SEH Inc.

FROM: Ms. Mary C. Bujold
Maxfield Research Inc.

RE: Estimated Development Costs for Riverside North

This memorandum and the accompanying spreadsheet identifies the potential development costs and potential revenues to be generated from each of the separate neighborhood areas of Riverside North in LaCrosse, Wisconsin.

In addition to the Avenue South commercial node at the gateway entrance to the property, there would be three general residential areas, The North Pier, The Oxbow and the Avenue North.

The Avenue North district is characterized by higher density buildings that are considered to likely be rental housing, although units in these buildings could also be for-sale. The spreadsheet assumes that the Avenue North district is rental and calculates potential revenues from units on the property taking into account development costs and property taxes. In the end, the Avenue North District appears to have a shortfall of about $1.8 million.

The Avenue South Commercial district is estimated to have a modest deficit of $34,800 annually.

The North Pier and The Oxbow districts are planned as much lower density areas within the Site. As such, an analysis of the potential development costs for these properties as rentals generates funding gaps of $1.8 million and $2.3 million, respectively, for the North Pier and the Oxbow Districts.

(612) 338-0012 fax (612) 904-7979
1221 Nicollet Avenue South, Suite 218, Minneapolis, MN 55403
www.maxfieldresearch.com

Developing the afore-mentioned districts with owned housing creates a different scenario. Developing all of the North Pier and Oxbow districts with for-sale housing results in positive property tax revenue that would be available to contribute to the TIF District that would be set up to defray a portion of the infrastructure costs to develop the green fingers, raising the site, etc. These costs are shown for each of the neighborhoods in total and as a per unit cost.

Housing products that are considered for these districts include mansion-style condominiums, rowhomes, and small buildings with no more than 12 units per building. Other assumptions made under the for-sale scenario is an average land cost per unit of $20,000 to $25,000 for owned housing, an average size of 1,500 square feet and an average price of $220,000. At an average land cost of $20,000 to $25,000 per unit which would include the base costs that the city has already incurred plus the allocated infrastructure costs, most of the units could be developed at pricing that would cover these costs. Once the unit is sold, the property taxes generate additional dollars to cover tax increment needed.

A portion of the residential units may be priced at slightly less than this amount, or may exceed this amount depending on interior unit features and amenities. In order to be able to close the potential gap between infrastructure and land costs, we estimate that the price of new for-sale housing would have to generally meet or exceed the $220,000 price threshold.

Assumptions:

Only a portion of the large scale public improvements to the property are included in the infrastructure costs. The remaining portion of the costs for the large scale improvements are anticipated to be covered through grants, donation and other public funds.

The City funds the costs of completing the green fingers and costs to construct the primary thoroughfare through the property. These costs have been factored into the analysis and would be paid back through additional taxes or through some type of rebated development amount back to the City upon sale of the unit. Ongoing maintenance costs for the green fingers would become the responsibility of the property owners once their unit is purchased or the landlord that owns the rental building.

The average size of the units is 1,500 square feet.

The anticipated sales prices in 2014 dollars were:

North Pier = $270,000 to $300,000+
Oxbow District = $250,000+

Anticipated per square foot rental rates of $1.40 and operating costs ranging between $0.30 and $0.35 per square foot.

Debt service was calculated for the rental.

No price escalation or inflation rates are calculated in this spreadsheet.

We estimate that the above purchase prices would be able to cover the land costs at a suitable price and most of the infrastructure costs that would be associated with each District, on a per unit allocation.

We recommend that a full TIF analysis be completed at the time of development proposals to ensure that current pricing and rental pro-formas would be consistent with current market conditions.

ESTIMATED DEVELOPMENT COSTS FOR RIVERSIDE NORTH
CITY OF LACROSSE, WI
August 2014

Avenue South Commercial	Estimated Land Area	Land Coverage Ratio	Estimated Parking Stalls	Estimated Land Costs	Estimated Infrastructure Costs	Construction Costs (Hard/Soft)	Estimated Gross Revenue	Estimated Operating Costs	Estimated NOI	Estimated Property Taxes	Estimated Debt Service	Estimated Annual Funding Gap***
27,000 square feet (1 & 2 story) retail and office services	$51,000 1.2 acres net/3.5 gross	40%	80 stalls 3.0/SF	$150,000 $2.87/SF	$497,431 $9.50/SF	$1,620,000 $60/SF	$486,000 NNN Lease	$48,000	$438,000	$55,350	$220,232	$162,418
The Avenue North (multi-story apartment buildings)												
Density - 50 units/acre net|18 units/acre-gross Estimated Total Number of Units Estimated No. of Buildings Roads land area allocation Average Square Feet/Unit	3 acres net/8.25 gross 150 units +/- 6 buildings 950	80%	120 stalls 0.8	$500,000 $4,167/unit $83,332	$1,658,104 $11,844/unit	$22,500,000 $150/sq. ft.	$1,710,000 $1,000/mo.	$948,000 $0.35/sq. ft.	$762,000 7% vacancy factor	$225,000	$1,787,735 15-yr, 25% equity 5.0% interest	($1,250,735)
The North Pier (mix of small mansion/condo-style buildings)												
Density - 25 units per acre net|11 units/acre gross Estimated Total Number of Units Estimated Total Number of Buildings Roads land area allocation Average Square Feet/Unit Total Proceeds (Less: Development Costs/Developer's Profit) Remaining Proceeds	6 acres net/13 gross 150 units +/- 15 buildings 1,200	60%	216 stalls 1.5	$1,000,000 $6,944/unit $166,664	$3,316,208 $18,842/unit	$36,588,000 $160/sq. ft.	$2,520,000 $1,400/mo.	$978,480 $0.30/sq. ft.	(Rental) $1,541,520 7% vacancy factor (For-Sale) $300K/Unit $45,000,000	$180,000 $1,122,900	$2,967,646 15-yr, 25% equity 5.0% interest	($1,606,126) $1,122,900
The Oxbow (mix of rowhomes/small residential buildings)												
Density - 20 units per acre/net | 9 units/acre gross Estimated Total Number of Units Estimated Total Number of Buildings Roads land area allocation Average Square Feet/Unit Total Proceeds (Less: Development Costs/Developer's Profit) Remaining Proceeds	10 acres net/22.3 gross 220 units +/- 30 buildings 1,200	60%	255 stalls 1.5	$1,500,000 $10,294/unit $249,996	$4,974,312 $29,609/unit	$50,640,000 $160/sq. ft.	$3,600,000 $1,500/mo.	$1,139,400 $0.30/sq. ft.	(Rental) $2,460,600 7% vacancy factor (For-Sale) $250K/Unit $55,000,000	$240,000 $1,216,600	$4,144,957 15-yr, 25% equity 5.0% interest	($1,924,357) $1,216,600
Roads and Right of Way and Open Space (excluding conservation area)	12.3 acres allocated across development areas			$500,000 Allocated to segments above	Allocated to segments above							
Estimated Total Funding Gap-ALL Rental												($4,618,800)

Estimated Total Funding Gap-Avenue North Rental and North Pier and Oxbow as For-Sale	**$1,251,183**

Average Land Cost Assumptions:

High-Density Apartments	$10,000/unit
Medium-Density Apartments	$12,000/unit
Medium-Density For-Sale	$20,000-$25,000/unit
Commercial	$5 per square foot

Development Costs (Rowhome) = $150 per sq. ft./unit (for sale) $225,000
Development Costs (Mansion) = $250 per sq. ft./ unit (for-sale) = $375,000
Development Costs (Loft-Style) $180 per sq. ft./unit (for-sale)= $270,000
Profit generated at $20,000 per unit revenue to defray costs = $4,400,000

Estimated Gap

Note: Cost escalation factor of 5% annually on hard and soft costs must be added to account for phase build-out
Estimated Gap includes funds needed after projected income and expenses, property taxes and debt service

Riverside North Redevelopment
Ecology Text for Report

Steven I. Apfelbaum and Doug Mensing
Applied Ecological Services, Inc.
17921 Smith Road, Brodhead, WI 53520
608.897.8641

ECOLOGICAL CONTEXT

Glacial History, Landforms and Soils

The site is located in the "Western Coulee and Ridges" Ecological Landscape of Wisconsin. The site is located within the "Driftless Area" – an area not covered by the most recent glacial advance, the Wisconsinan Glaciation. This unglaciated region has developed highly eroded landforms, including dramatic bluffs, steep slopes, and steep headwater streams. The Riverside Redevelopment Site is located at the confluence of three rivers (Mississippi, Black, and La Crosse), which are largely responsible for creating the region's landforms.

The 1919 Soil Survey of La Crosse County, Wisconsin mapped the entire site as "Peat," indicative of the site's previous wetland condition . The USDA/NRCS Web Soil Survey (2014) identifies the northern portion of the site as "Urban land, valley trains," and the southern portion as "Algansee-Kalmarville complex, 0-3% slopes, frequently flooded" and water. As of the 1938 aerial photograph of the site, significant fill had already been placed on the northern portion of the site. This historical aerial photograph shows railroad tracks paralleling the river (along the current trail alignment) as well as an arcing track that looped to the east, crossing the La Crosse River adjacent to the existing Copeland Avenue Bridge. The site's upland soils appear to be dominated by well-drained sands. The site's riverbanks are sandy with peat substrates. This combination of unconsolidated mineral soils over organic soils provides an unstable environment, complicating development and safe access for human use.

Hydrology and Wetlands

The site's southwest corner abuts the confluence of the Mississippi, Black, and La Crosse Rivers. These rivers are classified as Waters of the U.S. and are regulated by the state and federal government. The northern portion of the site currently consists of a disturbed/irregular landscape undergoing active fill. A flood levee runs through the site, generally following a northwest to southeast alignment. Below this levee, drainage is generally to the south and west toward the site's wetlands and adjacent rivers.

A portion of the site experiences annual flooding due to the confluence of rivers and relatively low elevations. The southwest half of the site lies within the floodway (where flood waters experience significant flow), and most of the site's remainder (as well as surrounding areas) lies within the 100-year floodplain. The northern portion of the site is undergoing fill so that future development will occur 2 feet above of the 100-year floodplain. The site's water table is isostatic with the stage of surrounding rivers—it rises and falls as the adjacent river levels rise and fall.
As with other Waters of the U.S., wetlands are also regulated under state and federal laws. A formal wetland delineation has not been conducted for the site, but based on existing data and a preliminary site review, three distinct wetlands have been identified. The largest site wetland consists of an

emergent wetland encompassing the southern third of the site. This wetland includes deep marsh to wet meadow to floodplain forest plant communities. One of the historical railroads tracks in this area has been removed from this wetland. A triangle-shaped area of floodplain forest wetland is located in the southwest corner of the site, abutting the three-river confluence. A smaller wetland is located northwest of the large emergent wetland. A damaged corrugated metal culvert was observed discharging into the north end of this smaller wetland; its source has not been confirmed. An outlet from this wetland or a connection to the large emergent wetland near to the south was not identified. Site wetlands are maintained by both groundwater and surface water inputs. As a result, the maintenance of these connections will be imperative to protect these natural resources under any development scenario.

Historical Vegetation

Based on historical vegetation cover mapping by others, in 1890 the site consisted of wet shrubland, wet forest, wet meadow, sand/mud, deep marsh, and open water . These wetlands would have contained a diversity of native plant communities and associated habitats for many wetland-dependent species.

Existing Land Cover and Invasive Species

The majority of the site has been significantly altered due to historical and ongoing fill, other land disturbance, hydrologic modifications to the rivers (e.g., Mississippi River Lock and Dam No. 7), and inadvertent introduction of invasive species. The site's most intact natural areas lie in the southern (mostly wetland) portion of the site. The ecosystems existing on the property follow a transition from disturbed uplands in sandy soils (along the old railroad right-of-way) to forested and grassy wetlands (along the rivers and in the site's wetlands). Significant portions of the site's uplands consist of bare or disturbed ground, resulting from recent fill activities. "Semi-natural" plant communities (e.g., weedy grasses and volunteer trees) occupy the remainder of the site.

Invasive vegetation exists in most of the project area's natural and semi-natural plant communities. Invasive plant populations impact a site's ecological health, aesthetics, and market value. These species thrive in disturbed habitats and often dominate and out-compete native plants, reducing habitat and species diversity and lessening an ecosystem's resilience in the face of disturbances and environmental change.

The site's uplands are dominated by disturbed and sparsely vegetated grasslands. These degraded grasslands are dominated by smooth brome grass (*Bromus inermis*), but contain some isolated prairie plants such as switchgrass (*Panicum virgatum*), little bluestem (*Schizachyrium scoparium*), bush clover (*Lespedeza capitata*), and a few other native species. Additional upland areas consist of disturbed woodlands dominated by invasive Siberian elm (*Ulmus pumila*) and black locust (*Robinia pseudoacacia*) saplings and trees. Invasive black locust trees are failing in the impoverished and seasonally saturated sands. Dead and dying trees and limbs present an unattractive backdrop to the proposed redevelopment site and convey the appearance of a deteriorated landscape. The understory in these areas contains invasive Tartarian honeysuckle (*Lonicera tatarica*) and European buckthorn shrubs (*Rhamnus cathartica*). Beneath these trees and shrubs were additional invasive species, such as garlic mustard (*Alliaria petiolata*), mullein (*Verbascum thapsus*), creeping Charlie (*Glechoma hederacea*), quack grass (*Elymus* repens), and smooth brome grass.

The site's floodplain forest is dominated by cottonwood trees (30-79 years of age), silver maple, and river birch. The large emergent wetland has transitional vegetation adjoining the uplands and includes

native wetland species such as wool grass (*Scirpus cyperinus*), sedges (*Carex stricta, C. emoryi, C. lanuginosa*), and shrubs such as sandbar willow (*Salix interior*) and buttonbush (*Cephalanthus occidentalis*). The upland sandy soils contribute to the localized recharge of rainfall and snow melt, which supports the seepage zones at the edges of the site wetlands. This transitional zone also contains invasive plants, such as giant reed (*Phragmites communis*) and reed canary grass (*Phalaris arundinacea*). The large wetland's vegetation of emergent and submerged rooted aquatic plants is dominated by cattails (*Typha x glauca, T. latifolia*) but contains other species such as giant bur reed (*Sparganium eurycarpum*). Aquatic plants in the site's open waters include coontail (*Ceratophyllum demersum*) and elodea (*Elodea canadensis*) among others.

Controlling invasive plant species is essential for ecological restoration to succeed. In addition, market premiums and price points will be improved with these investments in the amenity value, especially if the development is targeting informed, educated homebuyers and tenants.

Invasive animals (e.g., European carp, zebra mussels) also cause ecological harm to native populations and habitats. Most invasive animals in the site vicinity are found in river habitats. Unfortunately, control of invasive animals is usually difficult and costly – especially in large river systems. Documenting invasive animal populations and not facilitating their spread can help to control infestations and slow their spread.

Existing Wildlife and Habitats

A formal wildlife survey has not been completed at the site. However, during multiple brief site visits, AES documented several species of wildlife and indications of animal species. Wildlife identification was based on direct sightings, calls, scat, prints, feathers and other signs. Wildlife species confirmed to be using the site, as well as species expected to use the site, are listed in Table1 below.

Table 1. Wildlife Species Observed or Expected at La Crosse Riverside Redevelopment Site

Mammals	Birds	Reptiles/Amphibians	Insects
Species Confirmed at Site			
Cotton-tail rabbit	Bell's vireo (State Threatened)	Turtle (eggs/nest on site)	Water strider
Woodchuck	Great blue heron	Western chorus frog	Whirligig beetles
Meadow vole	Canada goose	Spring peeper	Deer tick
Beaver	Cooper's hawk		Green darner dragonfly
Gray squirrel	Blackburnian warbler		
	American redstart		
	Common yellowthroat		
	Yellow warbler		
	Baltimore oriole		
	Catbird		
	American coot		
	Red-winged blackburd		
	Sora		
	Peregrine falcon		
	Bald eagle		
Species Expected to Use Site			
White-tailed deer	Eastern meadowlark	Snapping turtle	White cabbage butterfly
Coyote	Grasshopper sparrow	Painted turtle	Monarch butterfly
Muskrat	Song sparrow	Common gartersnake	Copper (butterfly)
Opossum	Killdeer	Leopard frog	Giant swallowtail
Raccoon	Red-tailed hawk	American toad	Fritillary (butterfly)
	Ring-billed gull		Widow skimmer (dragonfly)

	Turkey vulture		12-spotted skimmer (dragonfly)
	Wild turkey		
	American goldfinch		
	Indigo bunting		
	Red-eyed vireo		
	Mourning dove		
	Mallard		
	Hooded merganser		
	Lesser scaup		
	Ring-necked pheasant		

For over a century, the site's and region's habitats have been degraded, destroyed, and fragmented as a result of development and human use. Since the mid-1800s, development has largely ignored natural resources, with the more recent exception of floodplain avoidance and wetland protection. This has created a patchwork of smaller and degraded habitats along this critical river corridor, compromising conditions for migratory birds as well as resident wildlife. The site provides an important opportunity to fill critical habitat gaps that would benefit species on site and within the region.

Special Status Species and Habitats

The U.S. Fish and Wildlife Service identifies five rare species in La Crosse County.

Table 2 Federally-protected and tracked species in La Crosse County (USFWS 2014)

Species	Status	Habitat
Higgins eye pearly mussel *(Lampsilis higginsii)*	Endangered	Mississippi River
Sheepnose (*Plethobasus cyphyus*)	Endangered	Mississippi River
Northern long-eared bat (*Myotis septentrionalis)*	Proposed as Endangered	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests and woods.
Eastern massasauga (*Sistrurus catenatus*)	Candidate	Open to forested wetlands and adjacent uplands
Whooping crane (*Grus americanus*)	*Non-essential experimental population	Open wetlands and lakeshores

*Whooping Crane - On June 26, 2001, a nonessential experimental population of the whooping crane was designated in a 20-state area of the eastern United States. The first release of birds occurred in Wisconsin in 2001, and the counties listed are those where the species has been observed to date. It is unknown at this time which counties the species will occupy in the future, as the birds mature and begin to exhibit territorial behavior. For purposes of Section 7 consultation, this species is considered as a proposed species, except where it occurs within the National Wildlife Refuge System or the National Park System, where it is treated as a threatened species.

The Federally-Endangered Higgins eye pearly mussel and Sheepnose mussel occur in the Mississippi River, which abuts the west edge of the site. The Northern long-eared bat (proposed as Endangered) may use the site's forests and wooded habitats. Eastern massasauga (a rattlesnake that is a candidate for federal listing) may use the site's open and forested habitats. Whooping crane may use the site's open water and wetland habitats.

In order to assess state records of rare natural features, an Ecological Resource Review was conducted of the Wisconsin Department of Natural Resources (WiDNR) Natural Heritage Inventory (WiDNR 2014). The search area included the La Crosse Riverside Redevelopment site plus a 2-mile radius. Forty-three

element occurrences (i.e., special status species and habitats) were identified within the search area (Table3).

Table 3. State-protected and tracked rare natural feature records within site vicinity (WiDNR 2014)

Common Name	Scientific Name	Type	State Status	Federal Status	Group	# EOs
American Eel	*Anguilla rostrata*	A	SC/N		Fish	~ 2
Bald Eagle	*Haliaeetus leucocephalus*	W	SC/P		Bird	~ 1
Bell's Vireo	*Vireo bellii*	T	THR		Bird	1
Black Buffalo	*Ictiobus niger*	A	THR		Fish	~ 1
Black Tern	*Chlidonias niger*	W	END		Bird	~ 1
Blanding's Turtle	*Emydoidea blandingii*	A	SC/H		Turtle	~ 1
Blue Sucker	*Cycleptus elongatus*	A	THR		Fish	~ 2
Buckhorn	*Tritogonia verrucosa*	A	THR		Mussel	~ 1
Bullhead	*Plethobasus cyphyus*	A	END	LE	Mussel	~ 1
Carolina Anemone	*Anemone caroliniana*	T	END		Plant	1
Emergent Marsh	Emergent marsh	W	NA		Community	~ 1
Fawnsfoot	*Truncilla donaciformis*	A	THR		Mussel	~ 1
Floodplain Forest	Floodplain forest	W	NA		Community	~ 2
Goldeye	*Hiodon alosoides*	A	END		Fish	~ 1
Henslow's Sparrow	*Ammodramus henslowii*	T	THR		Bird	1
Higgins' Eye	*Lampsilis higginsii*	A	END	LE	Mussel	~ 1
Monkeyface	*Quadrula metanevra*	A	THR		Mussel	~ 1
Mud Darter	*Etheostoma asprigene*	A	SC/N		Fish	~ 1
Paddlefish	*Polyodon spathula*	A	THR		Fish	~ 1
Pallid Shiner	*Hybopsis amnis*	A	END		Fish	~ 1
Peregrine Falcon	*Falco peregrinus*	T	END		Bird	1
Pirate Perch	*Aphredoderus sayanus*	A	SC/N		Fish	~ 1
Pugnose Minnow	*Opsopoeodus emiliae*	A	SC/N		Fish	~ 1
River Redhorse	*Moxostoma carinatum*	A	THR		Fish	~ 2
Rock Clubmoss	*Huperzia porophila*	T	SC		Plant	1
Rope Dodder	*Cuscuta glomerata*	T	SC		Plant	1
Shoal Chub	*Macrhybopsis hyostoma*	A	THR		Fish	~ 1
Shrub-carr	Shrub-carr	W	NA		Community	~ 1
Silver Chub	*Macrhybopsis storeriana*	A	SC/N		Fish	~ 2
Small-flowered Woolly Bean	*Strophostyles leiosperma*	T	SC		Plant	1
Snowy Campion	*Silene nivea*	T	SC		Plant	2
Timber Rattlesnake	*Crotalus horridus*	T	SC/P		Snake	1
Washboard	*Megalonaias nervosa*	A	SC/P		Mussel	~ 1
Weed Shiner	*Notropis texanus*	A	SC/N		Fish	~ 2
Western Sand Darter	*Ammocrypta clara*	A	SC/N		Fish	~ 2

For an explanation of the fields and codes used in this report, please refer to:
http://dnr.wi.gov/topic/NHI/calypso/EOReport.html

Many of these species are restricted to large and medium sized rivers; therefore, many of these species may be located adjacent to the site, but are likely not within the site boundary.

The La Crosse Riverside Redevelopment site is a very unusual piece of property. Even during the peak of its industrial use, it supported state and federal special status wildlife species – Bell's Vireo, Henslow's Sparrows, Bald Eagle, among many others. Some of the habitats that attracted and supported these and other wildlife species are still present and can be enhanced as a part of site redevelopment.

Species of Greatest Conservation Need

Species of Greatest Conservation Need (SGCN) is a wildlife classification for regional conservation purposes. It includes state-listed species and non-listed species that are regionally rare or in decline, often as a result of habitat loss. Within the "Western Coulee and Ridges" Ecological Landscape, the WiDNR has identified 10 mammals that are SGCN species, 65 birds, 19 reptiles and amphibians, and 20 fish (WiDNR 2012).

Establishing the site's natural areas as a refuge for certain SGCN species would be appropriate, given the site's regional location, significant size, existing rare species habitats, and enhancement and restoration potential. The existing and potential diversity of habitats at the site raises the likelihood that that SGCN species use or could use the site. Ecological restoration and management of the site would be expected to attract some of the region's upland, wetland, and river-dependent SGCN species.

DEVELOPMENT CONSIDERATIONS AND OPPORTUNITIES

Assessment of the data described above enabled identification of constraints and opportunities specific to the La Crosse Riverside Redevelopment site. By overlaying key constraints, one can begin to understand site-specific opportunities and the feasibility for redevelopment in different portions of the property. Areas that appear inappropriate or infeasible for redevelopment can be used to expand the conservation, ecosystem restoration, and open space amenity functions of La Crosse's larger open space, park, and trail system. This approach increases the value of areas suitable for redevelopment. The most significant constraints on this site include the river floodplain and wetlands.

Flooding

The site's existing levee has been altered in recent years. While the levee is designed to prevent floodwaters from entering the site's uplands, it can also impound water in these areas. Ongoing grading operations at the site are bringing some of the potentially developable land above the floodplain; however, much of the site will remain below flood level. These lower elevation areas will require flood-compatible design and use in these areas, which may include trails and boardwalks. Sediment management and ice-scour often affect the usability of such features on an annual basis, leading to increased maintenance costs. These factors need to be understood and considered during site planning and design. These issues can be accommodated through design of the recreational trail system and neighborhood stormwater management features. Tying in the site's proposed grades with existing/adjacent grades that will remain in the short-term will also require resolution and phasing considerations.

Existing flood damage risk reduction is not comprehensive due to inadequate room to adapt to the unpredictable flood stages of the three rivers. A site at such a confluence is always at risk of unpredictable dynamics in water levels as land use changes occur in the watersheds. Re-use of this site acknowledges that the levees provide a defined level of flood damage reduction risk, but flood frequencies from rare events (e.g., 500-year storms) are increasing in the Mississippi River watershed and on many Midwestern rivers, especially those affected by upstream agricultural and urban lands uses. The site's location is at high risk given predictions and trends in flood flows, stages, and rare storm event frequencies, durations and magnitudes. This constraint needs to be fully understood and dealt with during the design process.

Wetlands

Direct and indirect impacts to wetlands by dredging, filling or hydrological and water quality modifications are subject to permit requirements. Due to its size and connection to the river confluence, the site's large emergent wetland likely cannot be impacted, regardless of mitigation. If wetlands are impacted negatively by development, they can detract from and devalue the re-use and redevelopment potential of the site.

These floodplain and wetland issues will impact design considerations for the site; however, through their protection and integrated design, these features can be leveraged into important aesthetic, functional, and experiential amenities for the development.

Protected Species

While there are many special status plant and animal species in the vicinity of the site, the rare species confirmed to be using the site is Bell's vireo. Redevelopment of the site, including construction of recreational trails through the property, will bring more human activity to what has essentially been an off-limits, fenced industrial site for decades. Studies of trail-wildlife interactions have demonstrated that special status species such as Bell's vireo may find the site less desirable or intolerable with increased human activity. Visually, programmatically, and phenologically separating areas of wildlife activity from human activity (e.g., buffering) will be essential to ensure the continued use of the site by wildlife or to attract other special status species to the site. In the case of Bell's vireo, which nests in shrubs and small trees near the large emergent wetland, vegetation screening and/or limited use during the nesting season may be essential to protect this species' continued use of the site. Maintaining and/or attracting rare species such as Bell's vireo represents a unique feature of a development.

Green Infrastructure

Sites like the La Crosse Riverside Redevelopment property are among the most challenging for redevelopment. They often undergo waves of re-use with weak long-term solutions unless they are integrated into a well-designed master plan that embraces and protects the site's natural resources. High groundwater tables, groundwater upwelling during river flooding, impervious cover runoff, and similar site characteristics do not lend themselves to traditional design and redevelopment strategies. Green infrastructure—the substitution of natural and naturalized systems to deliver the functions of traditional "gray" infrastructure systems—is a proven effective approach to integrate ecological and traditional design for long-term sustainability. Green infrastructure strategies are often far more applicable and cost effective in locations such as the site. Moreover, studies from the U.S. Environmental Protection Agency, American Rivers, Applied Ecological Services, and others have demonstrated that such an approach usually achieves better cost-savings, place-making, and conservation outcomes than traditional approaches to infrastructure design.

Interpreting and Celebrating the Site

The La Crosse Riverside Redevelopment Site provides unique opportunities for interpreting and celebrating the natural and cultural history of the site, as well as the ecological and sustainable principles integrated into the site's design. Interpretive opportunities at the site include:

- Regional natural history: Mississippi River Valley, glacial history of the Driftless Region, bedrock geology, and watersheds;
- Flood dynamics and functions;
- Site history: Progression from a natural wetland/floodplain landscape to railroads and industrial uses to restored natural area and sustainable development;
- Cultural history: Native Americans, early white settlers, rail and lumber yards;

- Native ecosystems: Specifically those being restored to the site—prairie, savanna, forest, and wetlands;
- Ecological restoration and management practices;
- Local wildlife and their habitats; and
- Naturalized stormwater treatment train elements.

Interpretive signage, self-guided trails, and a nature center can be methods to provide interpretive materials to site residents, tenants, and other public users. The size and diversity of site habitats provides a plethora of opportunities to engage in the site's natural cycles. Phenology addresses natural phenomena as they change over the course of the year. Bloom times of specific wildflowers, singing of frogs and toads, and ripening of raspberries are all examples of natural cycles that can be conveyed to the public, enriching their experience and connection to the site. An example of natural phenomena and how, when, and where they could be experienced on the site is provided in Phenology chart, attached.

ECOLOGICAL RESTORATION

Proposed Native Plant Communities

Proposed native plant communities are those largely self-sustaining ecological combinations of species that are designed to match the site's ecological conditions and desired functions and aesthetics. Functional integrity includes providing site-appropriate habitats for desirable native wildlife. Based on the site's natural history, specific environmental conditions, and goals for the site, a customized ecological restoration plan should be developed to provide guidance to restore and/or manage the following native plant communities.

Table 3. **Proposed Native Plant Communities for the La Crosse Riverside Redevelopment Site**

Proposed Native Plant Community	Regional Rarity	Current Condition	Years to Achieve Expected Condition with Restoration & Management
Savanna Copse	Rare	-	10
Sand Prairie	Uncommon	-	5
Mesic Prairie	Uncommon	-	5
Wet Prairie	Uncommon	-	5
Emergent Marsh	Common	C/D	5
Floodplain Forest	Common	C	20
Aquatic Vegetation	Common	C	5

Note: Condition ranks range from A (high quality) to D (poor quality).

Planning for this site should envision the possibility of expanding, restoring, and connecting native habitats. In addition to benefitting native plants and wildlife, these connections will benefit human use, enhance people's appreciation of the site, and increase the value of the development in the marketplace. It could also be consistent with a desire to draw to the development educated buyers with aspirations to become involved in participatory conservation, lifelong learning, and local conservation efforts.

Proposed native plant communities indicate desired conditions at the site. Some of these native plant communities (e.g., savannas and prairies) will require full restoration, including soil preparation and installation of native seeds and/or plants. In other cases, these native plant communities will be

restored by enhancing an existing plant community. Establishment and management of these plant communities will require maintenance, but considerably less than turf and other conventional landscapes.

Plant species lists for restoration of native plant communities are provided in Appendix 1a. Native plant materials should have a source-origin within 200 miles of the project area whenever possible, and only native, wild-type (non-cultivar) species should be used. Substitutions for specified seed and plant materials may be necessary due to the rapidly changing availability and pricing of native plant materials. Every effort should be made to match the ecological purpose of species that are unavailable in the selection of substitution species.

Restoration and Management Approach

Restoration and Management Stages and Implementation Phasing

Ecological restoration and management occurs in two stages.

1. **Restoration and Short-Term Management.** This initial stage is the most intensive and costly. Significant effort is often necessary to reestablish native vegetation and plant community structure. Actions include tasks such as selective woody brush removal, spraying invasive species with herbicide, native seeding and planting, and using bio-control techniques when available. After invasive plants are removed and native seed and plants are installed, short-term management is critical. The period of time required to complete this restoration and short-term management stage varies depending on the condition of the ecological system, its response to restoration efforts, as well as the size of the site and intensity and scope of the of the restoration work. Typically this initial stage requires about three years for a given management unit, after which the perpetual management stage begins.

2. **Perpetual Management.** After achieving initial restoration goals within a management unit, the restoration process shifts to a reduced-intervention, lower-cost perpetual management stage. The perpetual management stage is critical for maintaining the value of the investment, perpetuating healthy plant communities, and maximizing the ecological and aesthetic benefits of the native plant communities. This perpetual management provides long-term control of invasive species, remedial seeding/planting as necessary, and maintains necessary disturbance regimes (e.g., fire) within the management units.

To carry out these two stages in the project area, work tasks are listed and scheduled over a multi-year period for each "management unit." Once work begins in a management unit, it is often important that all tasks be completed in sequence, or the restoration targets for that unit may not be achieved.
It is important that the restoration and management program and schedule be flexible. Flexibility is necessary because some tasks require suitable weather conditions or are dependent on the completion of preceding tasks. Flexibility is also necessary because feedback from the monitoring program may result in changes of strategy, techniques, and timing in order to meet restoration goals.

Ecological Monitoring & Reporting

In all stages of ecological restoration and management, ecological monitoring is used to evaluate the effectiveness of the program. An ecological monitoring program measures and evaluates the status of:

- Native plant and animal diversity and abundance;

- Development of native plantings;
- Invasive species populations; and
- Erosion issues.

Initial data collection provides a baseline against which future monitoring data can be compared. Data collected are species counts and mapping, estimates of plant cover, and repeat photography. Specific indicators of plant community health are defined and measured; for example, the presence in good numbers of birds characteristic of prairie, savanna and woodland is an indicator of habitat suitability. These data are used to assess the response of native plant and animal communities to ecological restoration and management. The effectiveness of management activities is judged against "performance standards" for the project—targets of progress as indicated by ecological conditions that are measured. Project goals, stated at the beginning of this document, can be modified over time if monitoring suggests the goals are not realistic or ambitious enough. Each year's monitoring results are compiled into a report, which is used to guide the next year's activities. A detailed ecological monitoring program should be developed for the site to support the ecological management program in perpetuity.

Specialized Training

Specialized training (often involving licensing or certification), oversight, and guidance are required of personnel before implementation of ecological restoration and management plans. Personnel and volunteers involved in prescribed burning, brush control, monitoring, seed collection, etc. should receive training commensurate with the activity in which they would be involved. Training is especially important for those activities that may have risk and safety implications, such as prescribed burning and herbicide application. However, even misidentification of plant species (e.g., mistaking native cherry shrubs for common buckthorn, mistaking native grasses for invasive reed canary-grass) can have adverse effects on restoration implementation and management.

RESTORATION AND MANAGEMENT PLAN IMPLEMENTATION AND SCHEDULE

Management Units and Tasks

Management units are used to organize ecological restoration and management. Management units may contain one or a variety of land cover types that warrant different restoration and management tasks. Restoration and short-term management tasks generally include site preparation, weed control, brushing and thinning (in wooded communities), seeding and planting, and ecological monitoring and reporting.

Management unit boundaries were delineated along existing roads, existing and proposed trails, topography, areas of similar management needs (e.g., use of prescribed fire), and proposed uses. The need to provide refuges for invertebrates during and after prescribed fires was also considered. Native plantings at entryways, near buildings and in parking lots are not included in this plan. Rather, they would be part of a separate landscaping plan for the site. Invasive plants are not recommended for use in site landscaping (Appendix XXX). Native woody plants are recommended for landscaping and ecological buffering (Appendix XXX).

The following sections outline tasks to be performed throughout the entire site as, general restoration and short-term management tasks for uplands and wetlands, and the steps to be taken in individual management units. When possible, implementation of this NRMP should begin with tasks for the entire

site, then proceeding to individual management units. Management units have been numbered primarily for identification purposes; however, they do represent a generalized phasing strategy.

9.1.1 General Tasks for the Entire Site

Restoration and management tasks that should be carried out throughout the entire project area include:

1. **Biological Inventory**
   - Establish permanent vegetation monitoring plots in representative plant communities to document changes in the vegetation over time.
   - As scheduling allows, conduct a thorough wildlife inventory with a focus on target indicator species. Different groups require different techniques. For example, point counts are useful for birds, calling censuses for amphibians, and transect counts for butterflies and dragonflies. Tracking changes in the presence and abundance of target indicator species will document whether the restoration and management activities favor the conservation of regionally uncommon species.
   - As scheduling allows, conduct a thorough inventory to identify additional rare plants on site.
   - Conduct a"bioblitz[1]" to involve technical experts and area residents in an inventory of the site's biological resources. This is not a substitute for the highly technical monitoring of plant communities and target indicator species.
2. **Prescribed Burn Management**
   - Prescribed burning is an important and cost-effective ecological restoration and management tool – and one that is appropriate for more than just prairies. Oak savanna, which used to occupy portions of the site, burned quite regularly prior to European settlement. However, these burns were typically low-intensity ground fires, fueled by oak leaves. The XXX may reintroduce prescribed fire to the site as a restoration and management tool, critical to cost-effective stewardship of the site.
   - Less frequent and less intense ground fires also burned through the site's historical forests, so we recommend fire be used in these ecosystems as well – especially to aid initial restoration and enhancement work. Over time, intermittent use of prescribed fire will shift plant species composition to carry a low-intensity surface fire through the site's wooded areas.
3. **Annual Ecological Monitoring & Reporting**
   - As part of adaptive management, complete an annual walkabout of each management unit. Document the success of native seeding and planting, regeneration of important plant species, invasive species presence, problems with vegetative cover, and observations of herbivory, erosion, or damaging activities.
   - Establish fixed photo-reference points and take photos annually, including landscape views as well as oblique downward photos to capture ground layer vegetation.
   - Prepare an annual ecological monitoring report that summarizes findings and provides recommendations for management in the upcoming year.
   - Where vegetation plots are established, repeat the sampling annually. In the context of restoration and management activities, summarize status and trends at the end of each calendar year.

[1] A bioblitz is usually a 24-hour period when volunteers document all living species within a given area, such as a public park. Bioblitzes help to gather important baseline data on plants and animals in a specific area, while also engaging people in discovery of the natural world and scientific research in the company of experts.

9.1.2 General Restoration and Management Tasks for Uplands

Restoration and management tasks that should be carried out in the site's uplands include:

1. *Site Preparation & Weed Control*
    - Use a combination of broadcast herbicide, tilling, spot herbicide, mowing, and prescribed burning to remove undesirable vegetation and prepare site for native seeding. Potential species of concern include, but are not limited to: smooth brome, Kentucky bluegrass, Canada thistle, bull thistle, leafy spurge, sweet clovers, ground clovers, crown vetch, hairy vetch, bird's foot trefoil, spotted knapweed, reed canary-grass, and garlic mustard.
    - A minimum of two (and ideally three) herbicide treatments is recommended for preparing cool season grass fields for native seed.
    - Prior to burning, secure necessary permissions, issue community notifications, and take appropriate precautions.
2. *Brushing & Thinning*
    - Where present, cut and stump treat all invasive non-native woody vegetation, including but not limited to: common buckthorn, glossy buckthorn, and exotic honeysuckles. Remove or selectively thin aggressive native woody plants (e.g., boxelder) to achieve target vegetation structure and shade regime. Careful use of a brush mower may be appropriate in areas (e.g., where desirable woody vegetation is absent).
    - Woody clearing should be done when the ground is frozen. Cut material can be stacked and burned on site, chipped and thin spread on site, or transported off-site for biomass-to-energy or firewood. Care should be taken to not spread invasive propagules (e.g., buckthorn berries) during removal activities. Handling and transport of cut wood should follow all state and federal recommendations to minimize the potential transfer of pests such as Emerald Ash Borer, Gypsy Moth, etc.
    - Treat invasive non-native woody vegetation seedlings and re-sprouts with foliar herbicide for up to 5 seasons.
    - If sufficient fuel, prescribed burning can also be effective for removing/controlling undesirable woody brush.
3. *Seeding & Planting*
    - After weed control is established, install specified local ecotype native seed. When possible (e.g., most prairie and savanna areas), seed should be installed with a no-till drill. Live herbaceous and woody plants may be installed to expedite the restoration process and establish appropriate ecosystem structure and composition.

9.1.3 General Restoration and Management Tasks for Wetlands

1. *Site Preparation & Weed Control*
    - The site's reed canary grass wet meadow has few other plant species present and represents a severely degraded wetland. Therefore, restoration of this plant community will need to be aggressive and thorough if a moderate quality native plant community is desired. This will entail using a combination of broadcast herbicide, mowing, and prescribed burning to remove the undesirable vegetation and prepare the area for native seeding. A minimum of two (and ideally three) herbicide treatments are recommended prior to installing native seed.
    - Prior to burning, secure necessary permissions, issue community notifications, and take appropriate precautions.
2. *Seeding & Planting*

- After weed control is established, install specified local ecotype native seed. Due to wetter conditions, wetland seed will typically be broadcast onto wet or moist soil (not over open water). In areas of standing water, live plants should be installed.

9.2 Short-Term Restoration and Management Tasks

The following table illustrates a typical restoration and short-term management program for the initial establishment of a given restoration area. However, restoration projects within a management unit will require a more detailed scope and will likely follow a slightly different schedule. It is also important to note that due to the development schedule, portions of the site will not be restored for many decades.

Table 9. Generalized Schedule for Restoration and Short-Term Management of a Given Project Area

Task	Description/Subtask	Year 1				Year 2				Year 3			
		Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter
Site Preparation (all zones)	Broadcast herbicide, till, spot herbicide, and/or mow	■	■	■									
Brushing & Thinning (upland zones)	Cut & stump treat invasive woody plants				■								
	Remove or selectively thin aggressive native woody plants				■								
Weed Control (all zones)	Prescribed burn (prep burn either late Summer, Fall or Spring)		■	■		■							
	Spot herbicide and/or spot mow					■	■			■	■		
	Foliar herbicide non-native woody re-growth							■				■	
Seeding & Planting (all zones, where weed control adequate; if weed control achieved sooner, plantings can be installed sooner)	Install native seed								■				
	Install live woody plants when dormant								■				■
	Install live herbaceous plants									■			
Ecological Monitoring & Reporting (all zones)	Assess/document site, and prepare summary report	■	■	■	■	■	■	■	■	■	■	■	■

The restoration and short-term management tasks listed above (i.e., site preparation, brushing and thinning, weed control, seeding and planting, and ecological monitoring and reporting) are described in greater detail in the management unit discussions below.

9.3 Perpetual Management

Perpetual management is essential to restoring and maintaining the composition, structure, and function of healthy native ecosystems. Perpetual management begins after initial restoration work is completed, usually the fourth year after restoration is initiated. The two primary perpetual management tasks are:

1. *Weed Control*
    - Control invasive non-native herbaceous vegetation, primarily with appropriate spot herbicide applications. Cutting of invasive woody vegetation may also be necessary in some areas. Plant

communities proposed for prairie restoration may employ haying or mowing if prescribed burning is not feasible. Mowing is less effective than haying because it does not remove plant material; over time the accumulated organic matter results in nutrient enrichment, which can favor invasive plants.

2. *Prescribed Burning*
    - Prescribed burning is a very cost-effective management tool for many native plant communities, including not only prairies but also savannas and some woodlands and forests. Generally, perpetual management burns are conducted on a rotational basis, beginning with the fall or spring following the third full year of growth after seeding. In order to mimic natural fire regimes, burns should extend across habitat gradients (e.g., burning from prairies into adjacent savannas, woodlands, and wetlands) when feasible.

Perpetual management tasks (Table 10) are repeated at different intervals for different plant communities to ensure that healthy restored plant communities are maintained over the long term.

Table 10. Perpetual Management Schedule

	Task Frequency (once every X years)			
Plant Community	**Prescribed Burning**	**Weed Control (Spot Herbicide)**	**Remedial Seeding/Planting**	**Detailed Monitoring & Reporting**
Forest	3-5	3-4	5	1
Hill Prairie	3	2-3	3	1
Savanna	3-4	1-2	3-5	1
Prairie	2-3	2-3	3-5	1
Wet Prairie	2-3	1-2	3-5	1
Wet Meadow	2-3	1-2	3-5	1
Marsh	2-3	2-3	3-5	1
Pond	NA	NA	NA	NA

Notes: NA = not applicable
Schedule assumes that prescribed burning will be employed as a restoration and management technique. If prescribed burning is not employed, haying should be used in prairie areas to remove accumulating plant material.

11 CONCLUSION

The site's natural environment contains a variety of plant communities, ranging from moderate quality native remnants to altered/disturbed cultural landscapes. The ecological restoration, enhancement, and management tasks, as well as trail and recreational facilities described in this NRMP & TRMP will help achieve the conservation and recreational goals. Carrying out these tasks by qualified restoration and recreation specialists, together with monitoring and adaptive management, will help ensure a legacy of healthy ecosystems and community engagement at the site. The restored and enhanced native ecosystems will provide aesthetically pleasing landscapes for the community, recreational opportunities for site visitors, habitat for wildlife, and ecosystem services that benefit the entire region.
Specific outcomes expected from implementation of this plan include:

- Approximately XXX acres of restored landscapes
- Convenient access to nature for the adjacent urban population center
- Example of how residential and commercial development can be mindful of restoration and recreation opportunities, both short-term (during operations) and long-term (end use)
- Example of how restoration and recreation can be phased in over time as opportunities arise, land becomes available, and funding is allocated

- Interpretive center and opportunities addressing cultural history, sustainability, native ecosystems, etc.
- Long-term ecological restoration, study, and observation site regarding ecological processes and natural ecosystems
- Provide large blocks of high quality habitat for wildlife uncommon in the region

12 NEXT STEPS & RECOMMENDATIONS

Based on the results of previous studies, recent research, and County and stakeholder input, the following next steps and recommendations are offered.

- Develop a more detailed restoration and management plan
- Develop a detailed monitoring program
- Determine annual funding available for implementation and maintenance
- Develop interpretive messages/signage/style

REFERENCES

Wisconsin Department of Natural Resources (WiDNR). 2012. *Species of Greatest Conservation Need - Western Coulee and Ridges Ecological Landscape*. http://dnr.wi.gov/topic/landscapes/index.asp?mode=detail&Landscape=11 (accessed October 2013).

Wisconsin Department of Natural Resources (WiDNR) – Natural Heritage Inventory. 2014. Element Occurrence (EO) Summary Detail Report. Custom database search for site – confidential report.

USDA/NRCS Web Soil Survey. 2013. Custom Soil Resource Report for La Crosse County, Wisconsin. (Generated May 2014).

USFWS. 2013. Endangered Species: County Distribution of Federally-listed Endangered, Threatened, Proposed and Candidate Species. http://www.fws.gov/midwest/endangered/lists/wisc-cty.html (Accessed May 2014).

Appendix 1a. Native Plant Lists

Forest Enhancement (upland, full shade)

COMMON NAME	SCIENTIFIC NAME	Rate
GRAMINOIDS		**(lb/ac)**
Hairy woodland brome	*Bromus pubescens*	0.30
Long-beaked sedge	*Carex sprengellii*	0.10
Bottlebrush grass	*Elymus hystrix*	0.20
Virginia wild rye	*Elymus virginicus*	3.40
Total Grasses		**4.00**

COMMON NAME	SCIENTIFIC NAME	Rate
FORBS		**(lb/ac)**
Long-headed thimbleweed	*Anemone cylindrica*	0.10
Canada columbine	*Aquilegia canadensis*	0.20
Jack-in-the-pulpit	*Arisaema triphyllum*	0.20
Large-leaved aster	*Eurybia macrophylla*	0.03
Harebell	*Campanula rotundifolia*	0.04
Pointed-leaved tick-trefoil	*Desmodium glutinosum*	0.05
Common false Solomon's seal	*Smilacina racemosa*	0.20
Zig zag goldenrod	*Solidago flexicaulis*	0.05
Heart-leaved aster	*Symphyotrichum cordifolium*	0.03
Sky blue aster	*Symphyotrichum oolentangiense*	0.05
Early meadow-rue	*Thalictrum dioicum*	0.05
Total Forbs		**1.00**

COMMON NAME	SCIENTIFIC NAME	Rate
COVER CROP (select ONE)		**(lb/ac)**
Oats	*Avena sativa* (Oct 15 – Aug 1)	**15.00**
Winter wheat	*Triticum aestivum* (Aug 1 – Oct 15)	**15.00**

Savanna (upland, partial shade)

36-211 **Woodland Edge South & West**

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/ sq ft
big bluestem	*Andropogon gerardii*	1.12	1.00	2.90%	3.68
side-oats grama	*Bouteloua curtipendula*	1.12	1.00	2.89%	2.20
kalm's brome	*Bromus kalmii*	1.68	1.50	4.34%	4.40
nodding wild rye	*Elymus canadensis*	1.40	1.25	3.61%	2.38
bottlebrush grass	*Elymus hystrix*	0.36	0.32	0.91%	0.88
slender wheatgrass	*Elymus trachycaulus*	1.40	1.25	3.64%	3.18
switchgrass	*Panicum virgatum*	0.07	0.06	0.17%	0.30
little bluestem	*Schizachyrium scoparium*	0.69	0.62	1.79%	3.40
Indian grass	*Sorghastrum nutans*	1.12	1.00	2.89%	4.40
	Total Grasses	**8.97**	**8.00**	**23.14%**	**24.82**
common yarrow	*Achillea millefolium*	0.03	0.03	0.09%	2.00
blue giant hyssop	*Agastache foeniculum*	0.11	0.10	0.28%	3.20
white snakeroot	*Ageratina altissima*	0.03	0.03	0.09%	1.70
white prairie clover	*Dalea candida*	0.19	0.17	0.50%	1.20
Canada tick trefoil	*Desmodium canadense*	0.16	0.14	0.42%	0.29
ox-eye	*Heliopsis helianthoides*	0.15	0.13	0.38%	0.30
wild bergamot	*Monarda fistulosa*	0.07	0.06	0.18%	1.60
stiff goldenrod	*Oligoneuron rigidum*	0.07	0.06	0.17%	0.90
Clayton's sweet cicely	*Osmorhiza claytonii*	0.07	0.06	0.17%	0.06
smooth wild rose	*Rosa blanda*	0.07	0.06	0.17%	0.06
black-eyed susan	*Rudbeckia hirta*	0.20	0.18	0.52%	6.10
Lance-leaved Figwort	*Scrophularia lanceolata*	0.06	0.05	0.14%	3.20
zigzag goldenrod	*Solidago flexicaulis*	0.02	0.02	0.05%	0.50
showy goldenrod	*Solidago speciosa*	0.07	0.06	0.18%	1.80
smooth aster	*Symphyotrichum laeve*	0.07	0.06	0.19%	1.30
American vetch	*Vicia americana*	0.20	0.18	0.52%	0.14
golden alexanders	*Zizia aurea*	0.12	0.11	0.33%	0.46
	Total Forbs	**1.68**	**1.50**	**4.38%**	**24.80**
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	72.48%	11.14
	Total Cover Crop	**28.02**	**25.00**	**72.48%**	**11.14**
	Totals:	**38.67**	**34.50**	**100.00%**	**60.75**
Purpose:	Partly shaded grassland planting for native roadsides, reclamation, etc.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

Prairie (upland, full sun)

35-641	Mesic Prairie Southeast				
Common Name	**Scientific Name**	**Rate (kg/ha)**	**Rate (lb/ac)**	**% of Mix (% by wt)**	**Seeds/ sq ft**
big bluestem	*Andropogon gerardii*	1.01	0.90	7.49%	3.30
side-oats grama	*Bouteloua curtipendula*	1.54	1.37	11.38%	3.01
nodding wild rye	*Elymus canadensis*	1.18	1.05	8.77%	2.01
slender wheatgrass	*Elymus trachycaulus*	1.01	0.90	7.50%	2.28
switchgrass	*Panicum virgatum*	0.24	0.21	1.78%	1.10
little bluestem	*Schizachyrium scoparium*	1.42	1.27	10.59%	7.00
Indian grass	*Sorghastrum nutans*	2.24	2.00	16.68%	8.82
	Total Grasses	**8.63**	**7.70**	**64.19%**	**27.52**
butterfly milkweed	*Asclepias tuberosa*	0.07	0.06	0.53%	0.10
whorled milkweed	*Asclepias verticillata*	0.01	0.01	0.10%	0.05
Canada milk vetch	*Astragalus canadensis*	0.18	0.16	1.33%	1.00
partridge pea	*Chamaecrista fasciculata*	0.67	0.60	5.00%	0.60
white prairie clover	*Dalea candida*	0.01	0.01	0.07%	0.06
purple prairie clover	*Dalea purpurea*	0.10	0.09	0.76%	0.50
Canada tick trefoil	*Desmodium canadense*	0.17	0.15	1.24%	0.30
ox-eye	*Heliopsis helianthoides*	0.06	0.05	0.43%	0.12
rough blazing star	*Liatris aspera*	0.03	0.03	0.21%	0.15
great blazing star	*Liatris pycnostachya*	0.03	0.03	0.29%	0.14
wild bergamot	*Monarda fistulosa*	0.01	0.01	0.06%	0.18
stiff goldenrod	*Oligoneuron rigidum*	0.02	0.02	0.17%	0.31
gray-headed coneflower	*Ratibida pinnata*	0.02	0.02	0.15%	0.20
black-eyed susan	*Rudbeckia hirta*	0.06	0.05	0.38%	1.54
heath aster	*Symphyotrichum ericoides*	0.01	0.01	0.05%	0.40
smooth aster	*Symphyotrichum laeve*	0.06	0.05	0.41%	1.00
bracted spiderwort	*Tradescantia bracteata*	0.04	0.04	0.34%	0.15
blue vervain	*Verbena hastata*	0.04	0.04	0.37%	1.50
hoary vervain	*Verbena stricta*	0.11	0.10	0.85%	1.05
golden alexanders	*Zizia aurea*	0.08	0.07	0.60%	0.29
	Total Forbs	**1.79**	**1.60**	**13.34%**	**9.64**
Oats or winter wheat (see note at beginning of list for recommended dates)		3.03	2.70	22.47%	1.20
	Total Cover Crop	**3.03**	**2.70**	**22.47%**	**1.20**
	Totals:	**13.45**	**12.00**	**100.00%**	**38.36**
Purpose:	Regional mesic prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	Eastern Broadleaf Forest Province excluding Hardwood Hills subsection. Mn/DOT Districts Metro & 6.				

Detention Water Basin (bottom of temporarily flooded basins)

33-261 **Stormwater South & West**

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/ sq ft
big bluestem	*Andropogon gerardii*	2.24	2.00	5.72%	7.35
fringed brome	*Bromus ciliatus*	2.24	2.00	5.73%	8.10
bluejoint	*Calamagrostis canadensis*	0.07	0.06	0.18%	6.40
slender wheatgrass	*Elymus trachycaulus*	1.12	1.00	2.85%	2.53
Virginia wild rye	*Elymus virginicus*	1.68	1.50	4.28%	2.31
switchgrass	*Panicum virgatum*	0.43	0.38	1.07%	1.93
fowl bluegrass	*Poa palustris*	1.19	1.06	3.03%	50.70
Indian grass	*Sorghastrum nutans*	0.13	0.12	0.36%	0.55
prairie cordgrass	*Spartina pectinata*	0.43	0.38	1.07%	0.91
	Total Grasses	**9.53**	**8.50**	**24.29%**	**80.78**
awl-fruited sedge	*Carex stipata*	0.28	0.25	0.71%	3.10
dark green bulrush	*Scirpus atrovirens*	0.21	0.19	0.54%	31.70
woolgrass	*Scirpus cyperinus*	0.07	0.06	0.18%	39.00
	Total Sedges and Rushes	**0.56**	**0.50**	**1.43%**	**73.80**
Canada anemone	*Anemone canadensis*	0.08	0.07	0.19%	0.20
marsh milkweed	*Asclepias incarnata*	0.12	0.11	0.32%	0.20
leafy beggarticks	*Bidens frondosa*	0.12	0.11	0.31%	0.20
flat-topped aster	*Doellingeria umbellata*	0.07	0.06	0.17%	1.50
spotted Joe pye weed	*Eutrochium maculatum*	0.07	0.06	0.18%	2.19
autumn sneezeweed	*Helenium autumnale*	0.15	0.13	0.36%	5.97
obedient plant	*Physostegia virginiana*	0.08	0.07	0.21%	0.30
tall coneflower	*Rudbeckia laciniata*	0.08	0.07	0.21%	0.37
New England aster	*Symphyotrichum novae-angliae*	0.08	0.07	0.19%	1.56
blue vervain	*Verbena hastata*	0.06	0.05	0.15%	1.85
golden alexanders	*Zizia aurea*	0.22	0.20	0.56%	0.79
	Total Forbs	**1.12**	**1.00**	**2.85%**	**15.13**
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	71.43%	11.14
	Total Cover Crop	**28.02**	**25.00**	**71.43%**	**11.14**
	Totals:	**39.23**	**35.00**	**100.00%**	**180.85**
Purpose:	Stormwater pond edges, temporarily flooded dry ponds, and temporarily flooded ditch bottoms.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

Wet Meadow (wetland slough)

34-271 **Wet Meadow South & West**

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/ sq ft
fringed brome	*Bromus ciliatus*	1.23	1.10	9.18%	4.45
bluejoint	*Calamagrostis canadensis*	0.06	0.05	0.41%	5.00
Virginia wild rye	*Elymus virginicus*	1.12	1.00	8.37%	1.55
rice cut grass	*Leersia oryzoides*	0.28	0.25	2.07%	3.10
tall manna grass	*Glyceria grandis*	0.17	0.15	1.26%	3.90
fowl manna grass	*Glyceria striata*	0.11	0.10	0.83%	3.30
fowl bluegrass	*Poa palustris*	0.39	0.35	2.88%	16.50
	Total Grasses	**3.36**	**3.00**	**25.00%**	**37.80**
bristly sedge	*Carex comosa*	0.24	0.21	1.78%	2.36
pointed broom sedge	*Carex scoparia*	0.06	0.05	0.43%	1.60
awl-fruited sedge	*Carex stipata*	0.19	0.17	1.40%	2.10
tussock sedge	*Carex stricta*	0.03	0.03	0.21%	0.50
fox sedge	*Carex vulpinoidea*	0.16	0.14	1.13%	5.00
path rush	*Juncus tenuis*	0.04	0.04	0.34%	15.00
dark green bulrush	*Scirpus atrovirens*	0.20	0.18	1.48%	30.00
woolgrass	*Scirpus cyperinus*	0.09	0.08	0.67%	50.00
	Total Sedges and Rushes	**1.01**	**0.90**	**7.44%**	**106.56**
marsh milkweed	*Asclepias incarnata*	0.27	0.24	2.03%	0.43
common boneset	*Eupatorium perfoliatum*	0.02	0.02	0.18%	1.30
grass-leaved goldenrod	*Euthamia graminifolia*	0.01	0.01	0.06%	1.00
spotted Joe pye weed	*Eutrochium maculatum*	0.02	0.02	0.18%	0.75
autumn sneezeweed	*Helenium autumnale*	0.03	0.03	0.23%	1.30
sawtooth sunflower	*Helianthus grosseserratus*	0.04	0.04	0.30%	0.20
great lobelia	*Lobelia siphilitica*	0.02	0.02	0.13%	2.90
blue monkey flower	*Mimulus ringens*	0.01	0.01	0.07%	6.80
Virginia mountain mint	*Pycnanthemum virginianum*	0.07	0.06	0.53%	5.10
giant goldenrod	*Solidago gigantea*	0.02	0.02	0.14%	1.50
eastern panicled aster	*Symphyotrichum lanceolatum*	0.03	0.03	0.22%	1.50
red-stemmed aster	*Symphyotrichum puniceum*	0.19	0.17	1.42%	5.00
tall meadow-rue	*Thalictrum dasycarpum*	0.01	0.01	0.12%	0.11
blue vervain	*Verbena hastata*	0.15	0.13	1.12%	4.61
bunched ironweed	*Vernonia fasciculata*	0.03	0.03	0.28%	0.30
Culver's root	*Veronicastrum virginicum*	0.01	0.01	0.12%	4.20
golden alexanders	*Zizia aurea*	0.28	0.25	2.06%	1.00
	Total Forbs	**1.23**	**1.10**	**9.19%**	**38.00**
Oats or winter wheat (see note at beginning of list for recommended dates)		7.85	7.00	58.37%	3.12
	Total Cover Crop	**7.85**	**7.00**	**58.37%**	**3.12**
	Totals:	**13.45**	**12.00**	**100.00%**	**185.48**
Purpose:	Wet meadow / Sedge meadow reconstruction for wetland mitigation or ecological restoration projects				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

Appendix 1b. Invasive Landscaping Plants to Avoid

The following undesirable plant species are known to escape from plantings, invading natural areas, often with adverse ecological effects. These species should not be used at the site.

Trees, Shrubs and Vines

Common Name	Scientific Name
Amur Maple	*Acer ginnala*
Norway Maple	*Acer platanoides*
Barberry	*Berberis thunbergii* and related species
Siberian Peashrub	*Caragana arborescens*
Russian Olive	*Eleagnus angustifolia*
Bittersweet	*Euonymus* spp or *Celastrus spp*, except *E. atropurpurea* and *C. scandens*
Non-native Honeysuckles	*Lonicera tatarica, L. x bella, L. morrowii, L. xylosteum*
White/European Poplar	*Populus alba*
Common, Glossy Buckthorn	*Rhamnus cathartica, R. frangula*
Black Locust	*Robinia pseudo-acacia*
Multiflora Rose	*Rosa multiflora*
Siberian Elm	*Ulmus pumila*

Herbaceous Plants

Common Name	Scientific Name
Smooth Brome	*Bromus inermis*
Flowering Rush	*Butomus umbellatus*
Crown Vetch	*Coronilla varia*
Queen Anne's Lace	*Daucus carota*
Leafy Spurge	*Euphorbia esula*
Common St. John's Wort	*Hypericum perforatum*
Yellow Water Iris	*Iris pseudacorus*
Bird's-foot Trefoil	*Lotus corniculatus*
Purple Loosestrife	*Lythrum salicaria*
White, Yellow Sweet Clover	*Melilotus alba, M. officinalis*
Silver or Banner Grass	*Miscanthus* species
Reed Canary-grass	*Phalaris arundinacea*
Giant Reed Grass	*Phragmites australis*
Japanese Knotweed	*Polygonum cuspidatum*
Ornamental water lilies	Various species
Mullein	*Verbascum thapsus*
Cow, Hairy Vetch	*Vicia cracca, V. villosa*

It is illegal to plant any species listed as noxious in state or federal listings. Contact the County Weed Inspector or visit http://plants.usda.gov/java/noxious?rptType=State&statefips=55 or http://plants.usda.gov/java/noxious?rptType=Federal.

There are hundreds of beautiful native trees, shrubs, wildflowers and grasses that can be selected to create aesthetically pleasing landscapes that grow easily without a great deal of maintenance. Some recommended native trees and shrubs, and innocuous non-native trees and shrubs, are provided in Appendix E.

Appendix 1c. Native Woody Plant Recommendations for Site Landscaping

These native woody plants are indigenous to La Crosse County and the surrounding ecological region. They are adapted to local conditions of soils, climate, diseases and competition. While some of these species may not have existed historically at the site, they are suitable for landscape plantings with the goal of visual screening, ecological buffering, and wildlife habitat enhancement.

Certain species are recommended because they have a high wildlife value as food (e.g., oak, serviceberry, aspen) or as nesting sites (conifers). These and other species are also attractive or have natural history interest because they are used by people or have interesting physical properties.
As a precaution, wild genetic stock within a 200-mile radius of the project area is preferred over cultivars and more distant genetic strains. Some research suggests that wild strains benefit wildlife to a greater extent than cultivated strains of the same species. Some research also suggests that local genetic strains of certain species are better able to survive local soil, climate, disease and competitive conditions than more distant genetic strains. Additionally a few species are not indigenous to the area but are innocuous in landscape plantings, and fulfill particular landscape design needs.

Upland Native Trees

Common Name	Scientific Name
Black Maple	*Acer nigrum*
Red Maple	*Acer rubrum*
Sugar Maple	*Acer saccharum*
River Birch	*Betula nigra*
Hackberry	*Celtis occidentalis*
Kentucky Coffee-tree	*Gymnocladus dioica*
Black Walnut	*Juglans nigra*
Eastern Red Cedar	*Juniperus virginiana*
Eastern White Pine	*Pinus strobus*
Big-toothed Aspen	*Populus grandidentata*
Quaking Aspen	*Populus tremuloides*
Black Cherry	*Prunus serotina*
Swamp White Oak	*Quercus bicolor*
Northern Pin Oak	*Quercus ellipsoidalis (coccinea)*
Bur Oak	*Quercus macrocarpa*
Red Oak	*Quercus rubra*
Eastern White Cedar	*Thuja occidentalis*
Basswood	*Tilia americana*

Upland Native Understory Trees and Shrubs

Common Name	Scientific Name	Form
Low Serviceberry	*Amelanchier humilis*	Shrub
Smooth Serviceberry	*Amelanchier laevis*	Short Tree
Black Chokeberry	*Aronia melanocarpa*	Shrub
Pagoda Dogwood	*Cornus alternifolia*	Shrub
Gray Dogwood	*Cornus racemosa*	Shrub
Red-twig Dogwood	*Cornus sericea*	Shrub
American Hazelnut	*Corylus americana*	Shrub
Fireberry Hawthorn	*Crataegus chrysocarpa*	Short Tree
Large-thorned Hawthorn	*Crataegus macrocantha*	Short Tree
Bush Honeysuckle	*Diervilla lonicera*	Shrub
Witch Hazel	*Hamamelis virginiana*	Shrub
Winterberry	*Ilex verticillata*	Shrub

Common Name	Scientific Name	Form
Ironwood	*Ostrya virginiana*	Short Tree
Virginia Creeper	*Parthenocissus quinquefolia*	Vine
Ninebark	*Physocarpus opulifolius*	Shrub
Wild Plum	*Prunus americana*	Shrub
Chokecherry	*Prunus virginiana*	Shrub
Smooth Sumac	*Rhus glabra*	Shrub
Smooth Rose	*Rosa blanda*	Shrub
Prairie Willow	*Salix humilis*	Shrub
Red Alder	*Sambucus pubens*	Shrub
Nannyberry	*Viburnum lentago*	Shrub
Highbush Cranberry	*Viburnum opulus var. americanum (trilobum)*	Shrub
Riverbank Grape	*Vitis riparia*	Vine

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Ecological Phenology For Riverside North - LaCrosse, WI**													
2		**The Experience**												
3		**Months**	**Jan**	**Feb**	**March**	**April**	**May**	**June**	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
4	**Species/Phenomenon/Experience**													
5														
6	Celebrating News Years Next to the River	Listening to the Ice setting in and cracking as it expands to cover the rivers surface	XX											
7	Watching bald eagles congragate around open water	Watching eagles catch fish, and interact at perching locations, perching on the ice	XX											XX
8	Bald Eagles start nest building/repair activities	Watch eagles carrying sticks for nest repair		XX										
9	Bald Eagle Nestling Fledging	Downy headed juvenile eagles climbing around branches in nest trees				XX								
10	Great Horned Owls calling throughout the night	5-parted Who, who, who, who, who call heard nightly	XX	XX										
11	Great Horned Owls Nesting	Adult owl hunkered on nest		XX										
12	Juvenile Great Horned Owls Fledging	See the downy juveniles flying around nesting locations			XX									
13	Snow Sweeps driven by high winds funnel down river's ice	Watch the drifting snow across the ice	XXX											
14	Ice Fishing in backwater areas	Fish for bluegills, walleye, pike from your ice fishing shanty	XX	XX										XX
15	First melt of snow and snowmelt floods local streams	Beware and watch flooding			XX									
16	Ice Breaks up and flushes from river as river comes to flood stage	Watch river water levels rise			XX									
17	River is in flood stage	Appreciate the power of water and the immense quantity of water moving through the river			XX	XX								
18	Frogs come out of hybernation, back to life	Life for the first calling Western Chorus frog, Spring peeper with ice out			XX									
19	Buds on Silver maples in floodplain, Sugar maple trees in tributary stream valley swelling	Become enthralled with the turning of the season			XX									
20	Maple syrup season begins	Help tap trees, have maple syrup on home-made vanilla icecream		XX	XX									
21	Spawning runs of Red Horse suckers and others begins in rapids on tributary streams	Watch the fish congrate for spawning below the rapids			XX	XX								
22	Spawning of Northern Pike begins as on-site wetlands flood and La Crosse river floods into site	Watch the massive swirls on the wetlands water surface as the Pike move into the marsh and spawn			XX									
23	Trout Fishing Season Opener	Watch the fly fishers or grab your fishing pole and wade the crystal clear Coolee streams in pursuit of Browns, rainbows and Brookies					XX							
24	Shad bush (Amelanchier) blooms	Notice the how this small shrub punctuates the ridge top of bluffs and cool north-faced draws				XX	XX							
25	Apple trees and other fruit orchards in full bloom	Smell the wonderful fragarance and listen to the hum of the honey bees polinating the flowers					XX							
26	First few spring flowers bloom on sand prairie on the project site	Marvel at the small mustards (Arabis lyrata) growing from pure sand				XX								
27	River Otters use the sandy beaches to stage as they a midden of stockpiled clam shells	Find the piles of clam shell				XX	XX							
28	The ground is blanketed with giant trilliums and other wildfllowers	Enjoy the beauty and diversity of the regional wildflowers					XX							
29	Find Pasque flowers blooming on south facing "Goat prairies" on ridges abutting the river.	Like pieces of the spring sky blue sky, these crocus like flowers emerge from the melting landscape			XX									
30	Celebrate the return of migratory birds, sandhill cranes, turkey vultures, Canada geese, and others	Flocks of cackling, honking, rapture creating primitive call of the crane return north following the river			XX									
31	Enjoy the bird life coming back; over 300 species of warblers, "Oh Sweet Canada Canada Canada" call of the white throated sparrow; the sweet plaintiff call of the Upland Sandpiper,	Participate in local bird watching morning tours--enjoy living in a Bird City					XX							

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
32	Enjoy the energetics of greater prairie chickens on their breeding grounds	Sit in a plywood blind set within the "booming grounds" and enjoy the dancing and vibrant activity at the Lek.				XX								
33	Camp on the islands and in the regional parks.	Enjoy the campfire smoke, smores, and trying to herds the cats (kids, pets, camping gear,etc)						XX						
34	Stay poised and unnerved during one of the largest insect hatches in USA	When the Largest mayfly hatches from the river, buildings, powerlines, roads are covered. Get out your snowshovels to clear the sidewalks						XX						
35	Catfishing daze, get your fishing gear and spend the night fishing							XX	XX	XX				
36	Enjoying settle into a hot cup of tea or coffee, and enjoy the changing of the season	Watch the cool air settling from the coulee's into the Mississippi river valley. How do you see this cool air--think misty mornings, as the fog spills from the coulees.					XX	XX			XX	XX	XX	
37	Watch the productivity of the river from to life with fish and clams	Stop in Stoddard, McGregor, and Prairie Du Chein, and see the commercial fishing catch and clams harvested for					XX	XX	XX					
38	Listen to the distant whine of chain saws as people are cutting fire wood for the coming winter	Help a neighbor or go purchase some firewood									XX	XX	Xx	
39	Plant your spring garden	Rotill the garden, plant spinach, onions, potato's, argula, etc				XX	XX							
40	Plant your summer garden	Plant and stake tomato's, eggplants, and much more						XX						
41														
42	Apple harvest Season	visit local orchards, and trees and enjoy picking, enjoy fresh sweet cider									x	XXX	x	
43	Fall Leaf Season	enjoy the art festivals, and other fall activities in La Crosse and nearby small towns, and enjoy the change in leaf color on the hilly landscape									x	XXXX		
44	Watch out for the men and women in "blaze orange" as the WI equivalent of a national holiday is celebrated	Deer hunting season begins and is an excuse for everything from skipping school to work.											XXX	
45	Visit the local bookstores to begin gathering your winter reading materials	Find the books that will settle with you into the cushions of your chair to pass the winter evenings											XXXX	
46	The first cold snaps settle in over the valley	Colder, rainy, drizzly weather smothers the river valley (cant see the bluffs) and it's a good time to curl up on the couch to read and knap.											XX	XXXX
47	Get your snow shovel out	Enjoy a snowball flight with your children, neighbors, as the first heavy snow falls												XXXX

PRELIMINARY CONSTRUCTION COST ESTIMATE
LA CROSSE, WISCONSIN
MIXED USE REDEVELOPMENT
RIVERSIDE NORTH REDEVELOPMENT

7/11/2014

SITE WORK

ITEM	UNIT	QUANTITY	UNIT PRICE	COST
PHASE 1- DREDGE RIVER TO BRING SITE UP TO 2 FT ABOVE FLOOD PLAIN	L.S.	1	$2,444,000	$2,444,000
PHASE 2- GRADING TO SHAPE SITE	L.S.	1	$2,500,000	$2,500,000
GREEN FINGERS	SY	20,089	$40	$803,556
TOTAL ESTIMATED CONSTRUCTION COST- SITE WORK				$5,747,556

STREETS AND UTILITIES

ITEM	UNIT	QUANTITY	UNIT PRICE	COST
TYPE A- RECONSTRUCTED				
COPELAND	L.F.	1,555	$1,220	$1,900,000
CAUSEWAY	L.F.	1,700	$580	$990,000
TYPE B- PARKWAY STREET				
RIVER BEND DRIVE	L.F.	2,450	$620	$1,520,000
TYPE C 2-WAY NEIGHBORHOOD STREET				
KRAFT STREET W	L.F.	725	$350	$250,000
KRAFT STREET E	L.F.	765	$380	$290,000
SPILLER ROAD	L.F.	495	$350	$170,000
MOBILE STREET	L.F.	660	$490	$320,000
TYPE D 1-WAY PARK STREET				
WAR EAGLE ROAD	L.F.	1,520	$480	$730,000
BELLS VIREO ROAD	L.F.	1,315	$480	$630,000
ULRICH ROAD	L.F.	1,490	$520	$770,000
OXBOW ROAD	L.F.	275	$340	$90,000
SUMMER STREET	L.F.	850	$420	$360,000
TOTAL ESTIMATED CONSTRUCTION COST- STREETS				$8,020,000

TOTAL ESTIMATED COST MIXED USE REDEVELOPMENT AREA	$13,767,556
TOTAL ESTIMATED COST PRIVATE UTILITIES	$1,000,000
TOTAL ESTIMATED PROJECT COST	**$14,767,556**

TOTAL ESTIMATED COST PUBLIC SPACE ENHANCEMENTS **$ 4,453,202.00**

PRE-CHARRETTE PROJECT BRIEF

1. Charrette Team Contact List
2. Community History
    a. History Presentation by City of La Crosse
    b. Mobil Oil Historic Overview
    c. Chronology of Events 1994-1997
3. Process Road Map
    a. Road Map
    b. Charrette Team Schedule
    c. Role of Steering Committee
4. Stakeholder Analysis and Summary
    a. Combined Stakeholder Meeting Notes
    b. “What We’ve Been Hearing” Summary
    c. Steering Committee Core Resource and Bucket List
    d. Surrounding Stakeholders List
5. Objectives, Measures & Strategies
    a. Riverside North Goals & Guiding Principles
    b. LEED 2009 for Neighborhood Development Rating System
        i. LEED Checklist
        ii. SLL Prerequisite 2
        iii. SLL Prerequisite 5
6. Base Data Summaries
    a. Blue Infrastructure Summary
    b. Ecological Systems Summary
7. Technical Inventory & Analysis
    a. Analysis Presentation
    b. Bell’s Vireo Report
    c. Remediation Summary Sketches