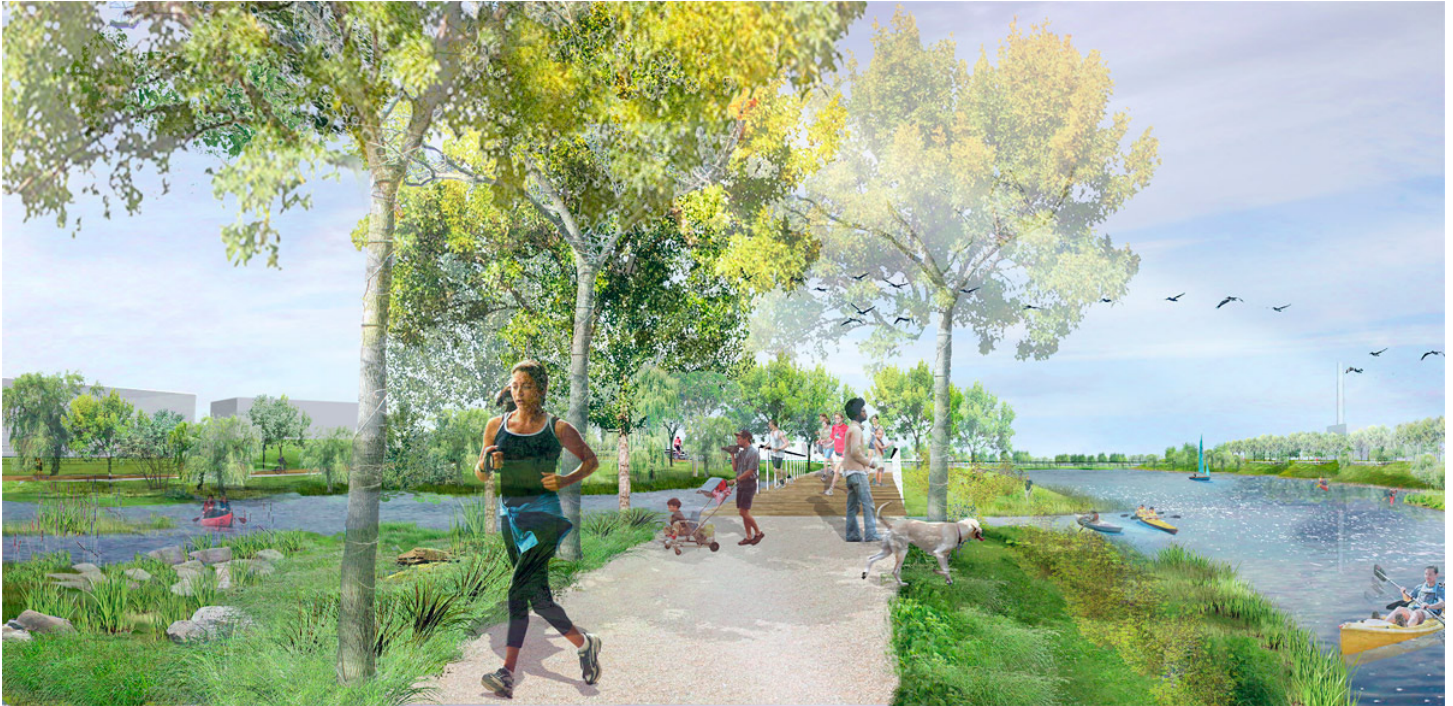


RIVERFIRST

Minneapolis

Central Waterfront

Lauren Rock
Virginia Werner



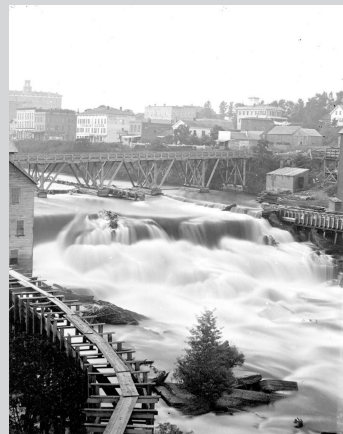
Wetlands Rendering
Tom Leader Studio and Kennedy and Violich Architecture

CONFLUENCE : A joining or flowing together of people and waters. RIVERFIRST is inspired from the Dakota concept of B'Dote, a sacred joining of waters. -TLS/KVA design team

As the name suggests, the RIVERFIRST project prioritizes restoring the river to a state of resiliency in response to our changing climate and the resulting uncertainty, while engaging the public to learn about and enjoy the Mississippi River. The four major areas of the design focus are **water, health, mobility** and **green economy**. Using the natural topography, the design incorporates the seasonal ebb and flow of the river to guide the development of stormwater management systems and the vertical separation between industry and park. New park lands increase areas for urban agriculture and provide opportunities for exercise. New bike/ski pedestrian “Knot Bridges” connect the city across the water, and tie the trail system together to connect the existing bike/pedestrian network. As part of the proposed educational aspect of RIVERFIRST, water monitoring data from the USGS and realtime views of river animals in their habitat would be accessible via the River Talk mobile application. Green economy speaks to the need to transform the city’s industry from a “smokestack industry” to a clean, efficient, diverse economy. In the overall plan, certain parks and areas are called out for special development.



The consistent theme has been to convert the Minneapolis Riverfront District into, once again, a vital part of the city.
 City of Minneapolis CEPD, 2010



Minnesota Historical Society
 City of Minneapolis

History of the Minneapolis Riverfront

The City of Minneapolis began along the banks of the Mississippi River when settlers were first attracted to the beauty and hydropower potential of the St. Anthony Falls. Minneapolis was originally two villages; St. Anthony along the east riverbank, and Minneapolis along the west riverbank, but merged in 1872. The falls made possible sawmills, which were followed by flour mills, giving birth to General Mills and Pillsbury. With the construction of water canals, dams, spillways, and railroad lines, Minneapolis soon became the flour milling capital of the world as well as a significant urban center built along the Central Riverfront.

As technologies and the economy changed over time, Minneapolis' milling industry also declined. Mills and rail depots began closing and by the mid-twentieth century, the once vibrant Central Riverfront became filled with vacant land, blighted buildings, scrap yards, empty factories, and unused rail lines.

By the mid-1960s, the Central Riverfront was formally identified as in need of redevelopment. The large area of the Central Riverfront and the scope of work necessary for revitalization made it clear that a comprehensive, long-range, public-private approach was necessary.

In 1972, the *Mississippi Minneapolis* plan was published. Since then, many other plans have been published and significant progress has been made. Achievements include: the relocation of incompatible uses, the completion of portions of the Central Riverfront Regional Park, the construction of the Guthrie Theater, the rehabilitation of over 60 historic buildings, the construction of over 3,200 housing units, and the establishment of year-round activities and events.



Guthrie Theater, 2006
 by Jean Nouvel
Booting Life's
Grounders blog



Downtown Minneapolis, across the Mississippi River and St. Anthony Falls
 Destination360.com

Revitalization of the Central Riverfront

Since the 1970s, planning for the revitalization of the Central Riverfront has been consistently focused on the goal of restoring the Minneapolis Riverfront District as a vital part of the city, while respecting and protecting the Mississippi River and the surrounding historic district as important natural and cultural resources.

Goals of the Riverfront Revitalization

City of Minneapolis, CEPD

- Convert the riverfront from a practical utility to a public amenity and provide river access
- Preserve and interpret the area's history
- Develop a vital mixed-use community with vibrant residential neighborhoods
- Enhance the ecological function of the river
- Remove barriers and provide the needed infrastructure
- Establish and implement urban design guidelines
- Implementation of riverfront revitalization is efficiently coordinated, effectively communicated, sufficiently funded and based upon a shared vision

Minneapolis Central Riverfront

Timeline

1872 - St. Anthony and Minneapolis merge to become the city of Minneapolis

1840-1910 - Sawmilling at St. Anthony Falls

1880-1930 - Flour Milling Capital of the World

1960s - Riverfront District is blighted and under-used

1970s - *Mississippi/Minneapolis* plan is approved, redevelopment projects begin, historic district established, regional park planning initiated, Clean Water Act approved

1988 and 2006 - Critical Area Plan

2008 - Minneapolis Riverfront Corporation established

Sept. 2010 - Riverfront Design Competition announced

Feb. 2011 - TLS/KVA team wins design competition

Sept. 2011 - MPRB accepted the RiverFIRST: A Park Design Proposal and Implementation Framework

4-5 years - Short-term plan

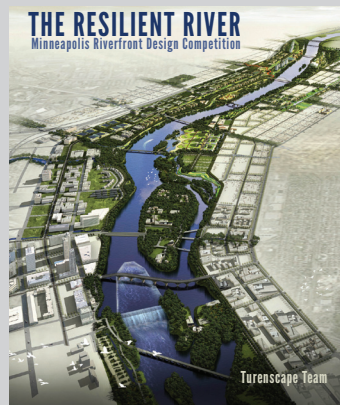
20 years - Long-term vision

St. Anthony Falls Heritage Board and the City of Minneapolis

"What if we looked at the river's needs first? Our thinking was what's good for the river has got to be good for the people and economic growth, it is can be handled sustainably." ~Sheila Kennedy, Architect

Minneapolis Riverfront Design Competition Runners Up:

The Resilient River, Turenscape



City of the River, Ken Smith Workshop, SHoP



Streamlines Mississippi Strands, Stoss Landscape and Urbanism



Minneapolis Riverfront Design Competition

The Minneapolis Riverfront Design Competition, sponsored by the Minneapolis Park and Recreation Board (MPRB) and the Minneapolis Parks Foundation, was announced on September 16, 2010. Emerging from the 2000 master plan, this 11-mile Minneapolis Riverfront revitalization along the upper river shoreline will be the first of the "Next Generation of Parks," a design vision for a modern park system throughout the city. As stated in the competition brief, "the competition will investigate new opportunities for connectivity, sustainability, infrastructure and public space along the upper riverfront and extending into the surrounding neighborhoods."

The competition encourages a comprehensive, integrated approach to evaluating the larger river/park system, creating a vision that:

- Establishes parks as the engine for economic development along the river,
- Knits both sides of the riverfront together with their surrounding communities, thereby transforming the river from a barrier to a connector, and
- Re-focuses the city toward one of the three great rivers of the world—the Fourth Coast of the U.S.—an extraordinary environmental amenity that defines Minneapolis' civic identity, past, present and future.

The Winning Team

The design proposal of the partnership between Tom Leader Studio of Berkeley, CA, and Kennedy & Violich Architecture of Boston was announced as the winning design in early 2011, beating out 54 other teams from 14 countries. The TLS/KVA team comprises 14 firms, including 9 Minneapolis-based partners. The team also formed the RIVERFIRST Network, a consortium of over 120 engaged citizen consultants, organizations and advisors who helped with the design competition and who are also involved with moving the project forward.



Tom Leader, Sheila Kennedy and Frano Violich

Minneapolis Riverfront Design Competition



Tom Leader Studio and Kennedy and Violich Architecture

RIVERFIRST

The RIVERFIRST design functions at multiple scales to link natural, social, civic, and economic ecologies and raise citizen awareness about the Mississippi River. Steve Berg of MinnPost.com summarizes the main aspects of the design below:

- In North Minneapolis, Farview Park, on Lyndale Avenue and 26th Street, would be extended eastward over the Interstate 94 freeway to the river's edge. The park would include extensive urban agriculture, including fields, orchards and a farmers' market.
- Just to the south, River City, a new medical and smart-tech center would develop along the east side of 94, along the river's edge.
- Two miles upriver, the current Port of Minneapolis would be transformed into Green Port, specializing in eco-friendly products such as sustainable fertilizers and road salts.
- Tree-lined bike trails and walking paths would run along the river's edge, softening the landscape between industrial, recreational, office and other uses. "Clip-on bridges" and stairways would be attached to car bridges to allow pedestrians to move upward from the river's edge to river crossings. These connections would become part of the city's Grand Rounds park system.
- Wetlands and inlets would be restored as filters for storm-water runoff and habitat for wildlife. "Biohavens" would be constructed on the river itself to provide habitat for migrating birds. Floating islands would absorb pollution and help to clean the river. Kayaking, canoeing and fishing would be encouraged, as would winter activities like skating and cross-country skiing.
- Commercial and mixed-use clusters would develop at bridgeheads. Some industrial buildings would be converted to live-work quarters.
- A public beach and housing would be developed on the site of the old Scherer Bros. lumberyard near the foot of the Plymouth Avenue Bridge in Northeast. The beach would also include a heated pool and offer stunning skyline views.
- A major downtown park, Library Square, at the Hennepin-Washington intersection would extend the riverfront into the heart of the central business district.

Minneapolis Central Riverfront

The Key Players in the Revitalization of the Riverfront

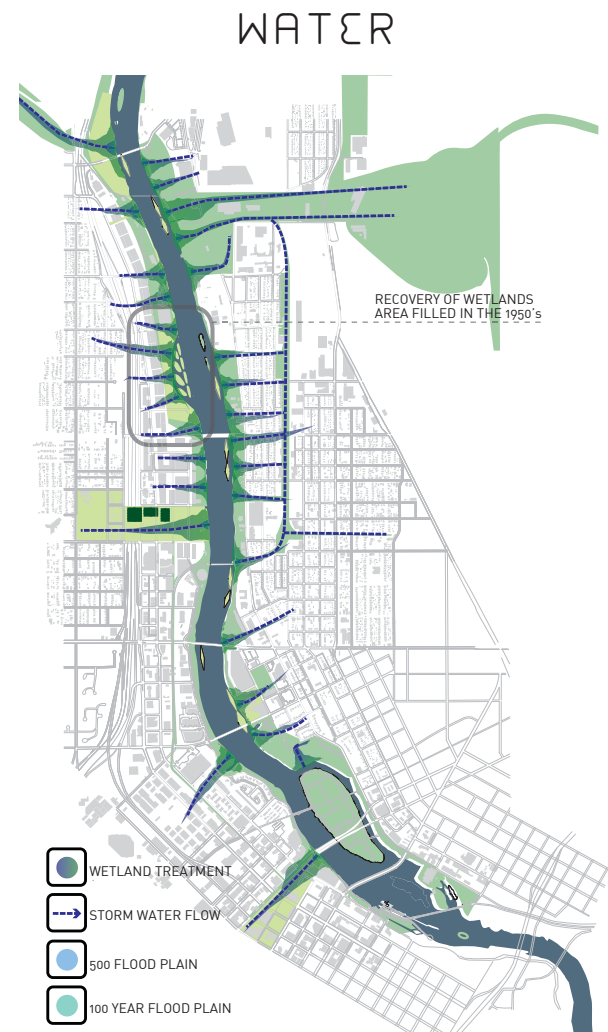
- The City of Minneapolis
- Minneapolis Park and Recreation Board
- St. Anthony Falls Heritage Board
- University of Minnesota
- Minnesota Historical Society
- Minneapolis Riverfront Corporation

Minneapolis Riverfront Partnership

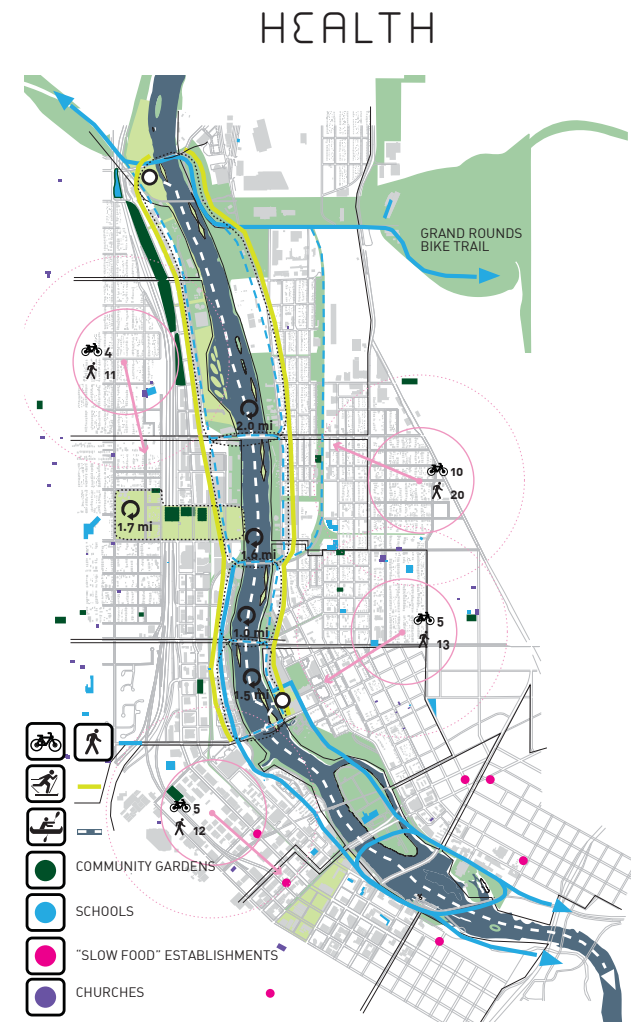


Waterfront Concept Sketch
Tom Leader Studio and Kennedy and Violich Architecture

"The river now is a lonely place [...] At first we were looking for a big feature to put along the river, then we realized that the river was the big feature. If we put the river first, everything else would follow. ~Tom Leader

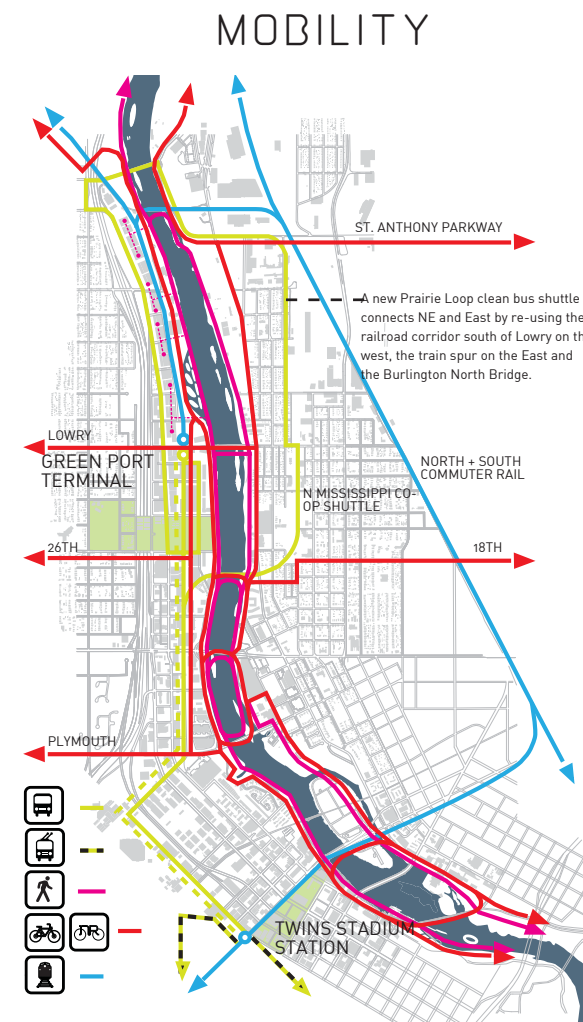


Tom Leader Studio and Kennedy and Violic Architecture



Health

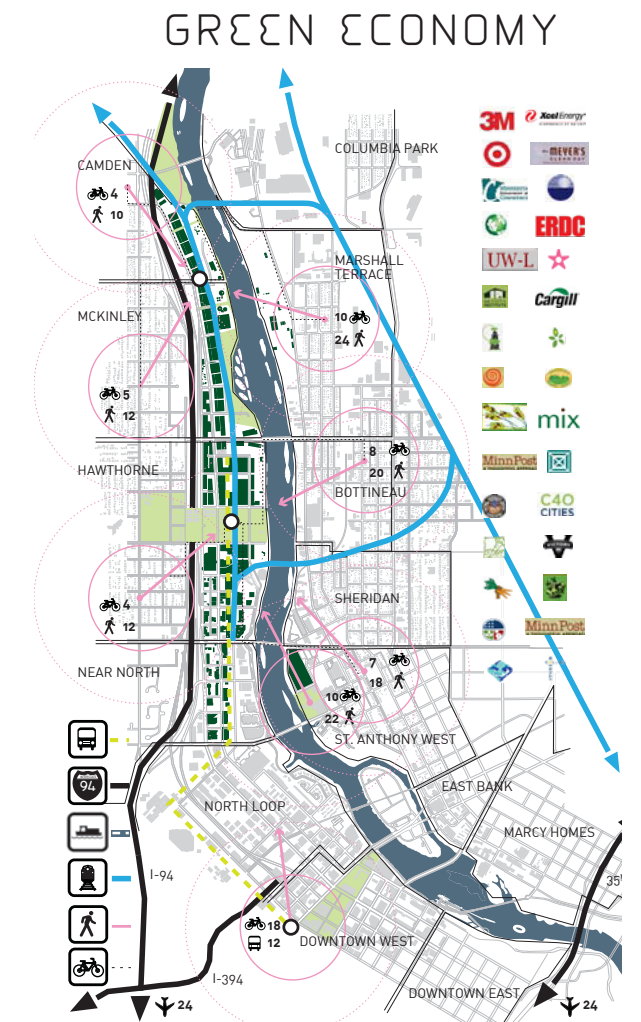
The use of parkland to improve the health of the river, as well as the health of the city and its neighborhoods is another important principle in the RIVERFIRST design. Parkland allows for urban agriculture and food security that would increase local access to healthy food and nutrition while simultaneously building community and local organic produce businesses.



Tom Leader Studio and Kennedy and Violic Architecture

Mobility

RIVERFIRST introduces a sustainable, multi-modal public transportation system for commuting, recreation, and mobility. A network of continuous pedestrian and bike/ski riverfront trails is established across existing bridges and a new Knot Bridge.



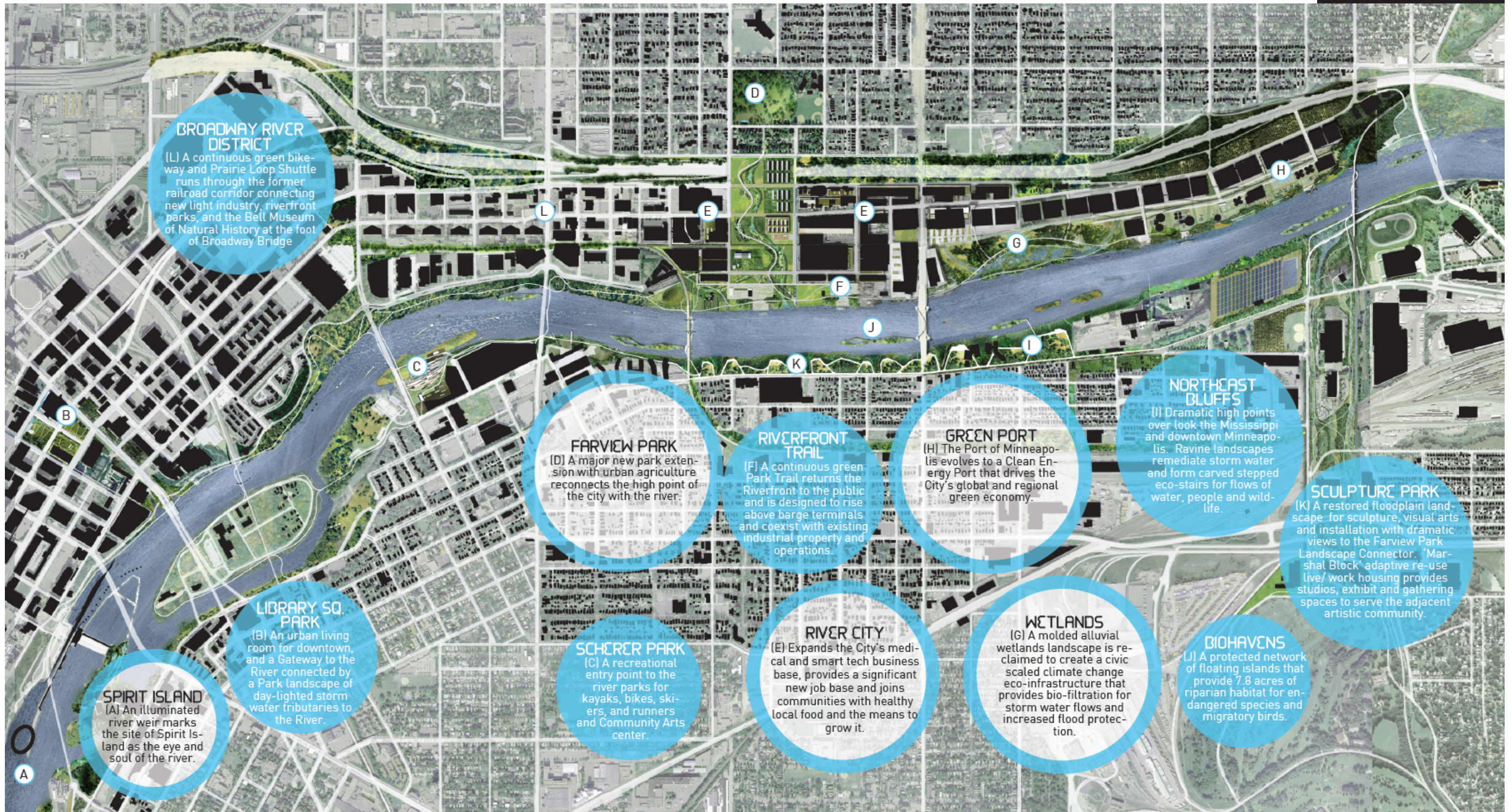
Green Economy

RIVERFIRST considers the park as a catalyst in accelerating the transformation from smokestack industry to a 21st century Green Economy based on transportation advantages, smart, and clean technology innovation. Existing train lines are converted to a Green Port, connecting Minneapolis with renewable wind energy, clean power for electric vehicles, and on-shore power for barges, trains, and industry. The Green Port will also create jobs for local residents who can bike, walk, or take a shuttle bus to work.

Four Challenges for the 21st Century

Water

Remediation of the Mississippi River is an driving principle behind the RIVERFIRST design. It rethinks the city's storm water management system into a confluence of 'tributaries' that are cleansed by planted bio-filtration before being returned to the river. The recovery of wetlands and the storm water 'tributaries' integrate park land with municipal infrastructure, public access to the river, and a wide range of year-round recreation activities. RIVERFIRST creates new opportunities for public interaction and education along the riverfront.



Overall Plan
 Tom Leader Studio and Kennedy and Violic Architecture

"The Mississippi River offers the perfect setting for the Bell Museum of Natural History and/or a Native American Museum. The site near the Broadway Bridge offers a stunning view of downtown, good visibility and excellent access to transit, downtown and the interstate. As the first major arts/cultural institution to locate north of downtown, the museum will anchor a visitor industry cluster that provides employment opportunities and strengthens a revitalized business district on Broadway west of the interstate."

~ Janna King, Economic Development Group

Arts District: Green and Blue Life Ways

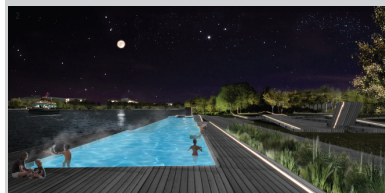
The Arts District will house multiple functions that interconnect and support each other, providing a variety of activities that animate the site throughout the day and into the evening. These amenities and areas include:

- | | |
|---|---------------------------------|
| a Mississippi Overlook/Belvedere | n Market Rate urban housing |
| b Riverfront Sculpture Park | o Art Center |
| c Ravine / Ecological Stairway | p Kayak launch park |
| d Pedestrian / Bike through-way | q Recreational rentals / café |
| e Pedestrian / Bike loops | r Wood "raft" platforms |
| f Marshall Concrete Residential/Studios | s Year-round swim barge and spa |
| g Children's Art Camp | t Pedestrian bridge |
| h Biohaven floating island | u Sloping green |
| i Urban Farm | v Entry Plaza |
| j Arts Plaza and Pavilions | w Forest |
| k Art Greens | x Existing Marina |
| l 13th Street art corridor | y Nice Ride Bike Station |
| m Bike / Pedestrian Trail | |

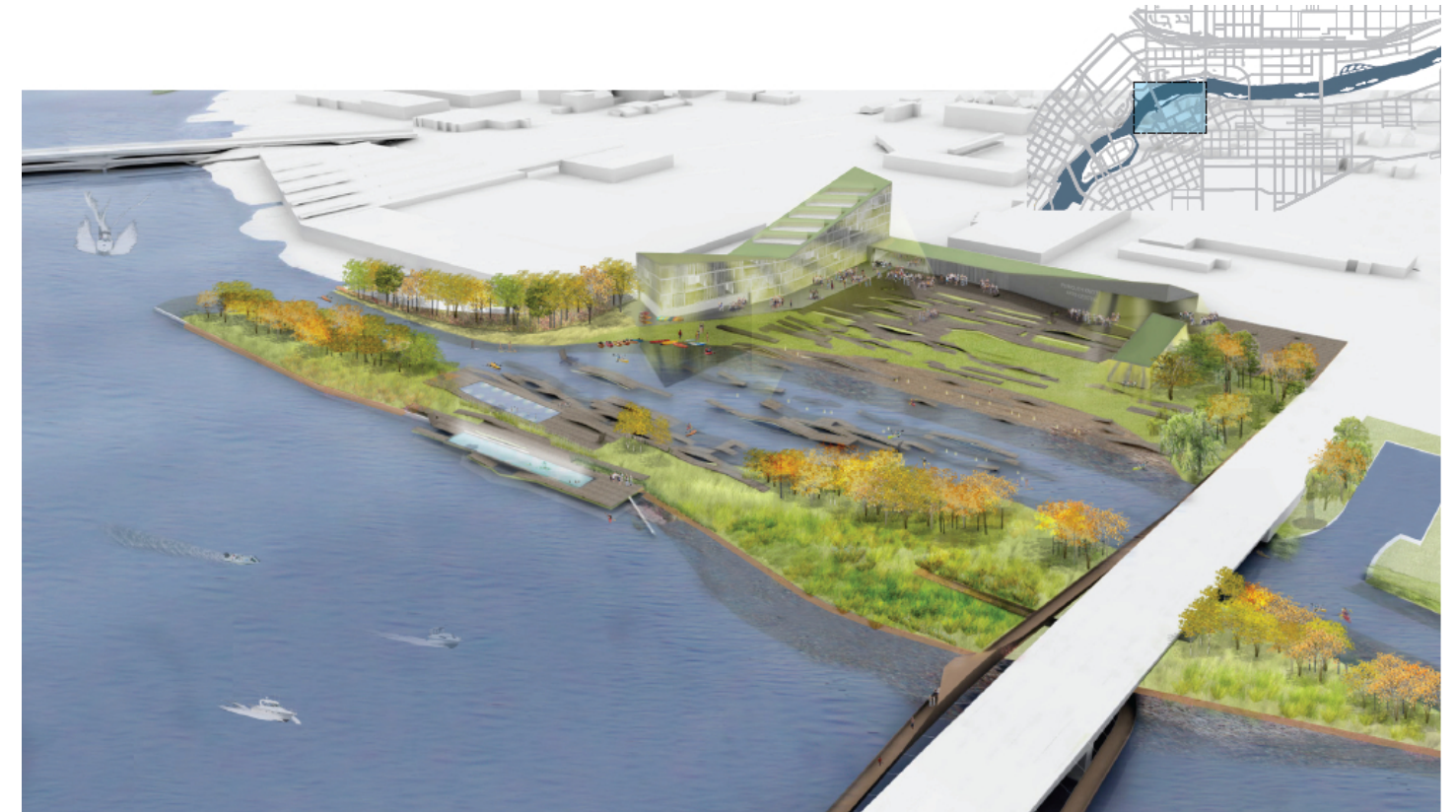
Criticism: While the plan does site some market-rate housing, one of the criticisms of this project is that it does not provide enough housing. It appears that there is plenty of single family homes in the northern part of the project area, but on the west side they are separated from the riverfront by I-94. On the east side, Marshall Street runs north-south and there are large industrial areas bordering the river, separating the residential area from the river as well. In the southern portion of the project, downtown Minneapolis is adjacent to the river. Even though it is criticized for not providing enough housing, it is projected that the completed project will provide 50,000 units by 2030.



Scherer Park Kayak Launch
Tom Leader Studio and Kennedy and Violich Architecture



Pool View
Tom Leader Studio and Kennedy and Violich Architecture



Scherer Park Rendering
Tom Leader Studio and Kennedy and Violich Architecture



Arts District Plan
Tom Leader Studio and Kennedy and Violich Architecture

The "Aha!" moment of the trek came when the trio reached Marshall Terrace Park in northeast Minneapolis. There, a stairway lets you reach the water's edge. "There were little islands with trees and birds. Ice was floating down the river. It was more hospitable and intimate. We agreed this is what we want to see." ~ Tom Leader



Aerial Rendering of Islands
Tom Leader Studio and Kennedy and Violich Architecture

Biohaven Island Habitats

The RIVERFIRST plan strives to enhance and restore habitat for migratory birds, as the Mississippi River corridor accommodates 60 percent of the migratory bird species in North America. The Biohaven Islands are floating habitats that incorporate native flora and fauna to support ecodiversity in the river and the region. These islands will add over eight acres of habitat. As part of the mission to reutilize waste materials, these islands are constructed of lightweight recycled PET materials. These diamond-shaped islands are tethered to the bridges. Using the River Talk phone application, visitors can track river conditions and connect to cameras that track species in their habitats.



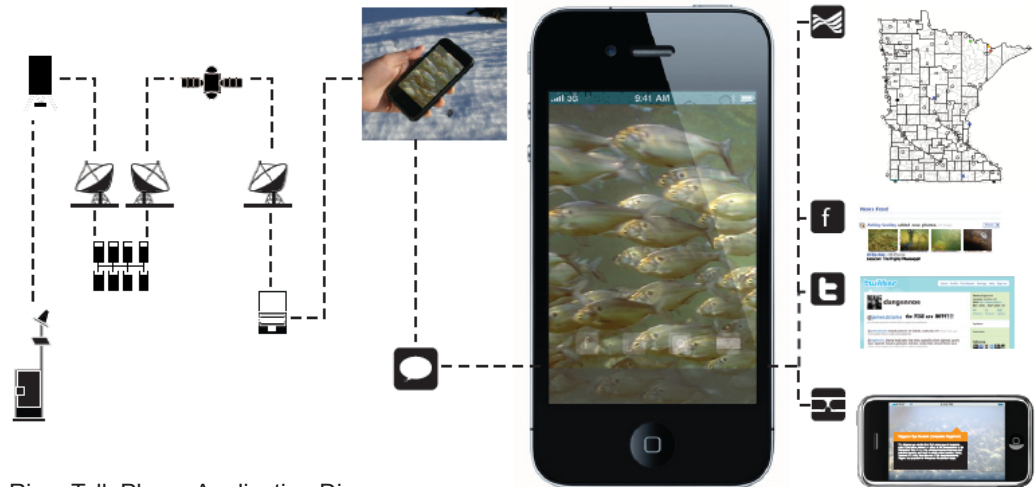
Winter River Rendering
Tom Leader Studio and Kennedy and Violich Architecture



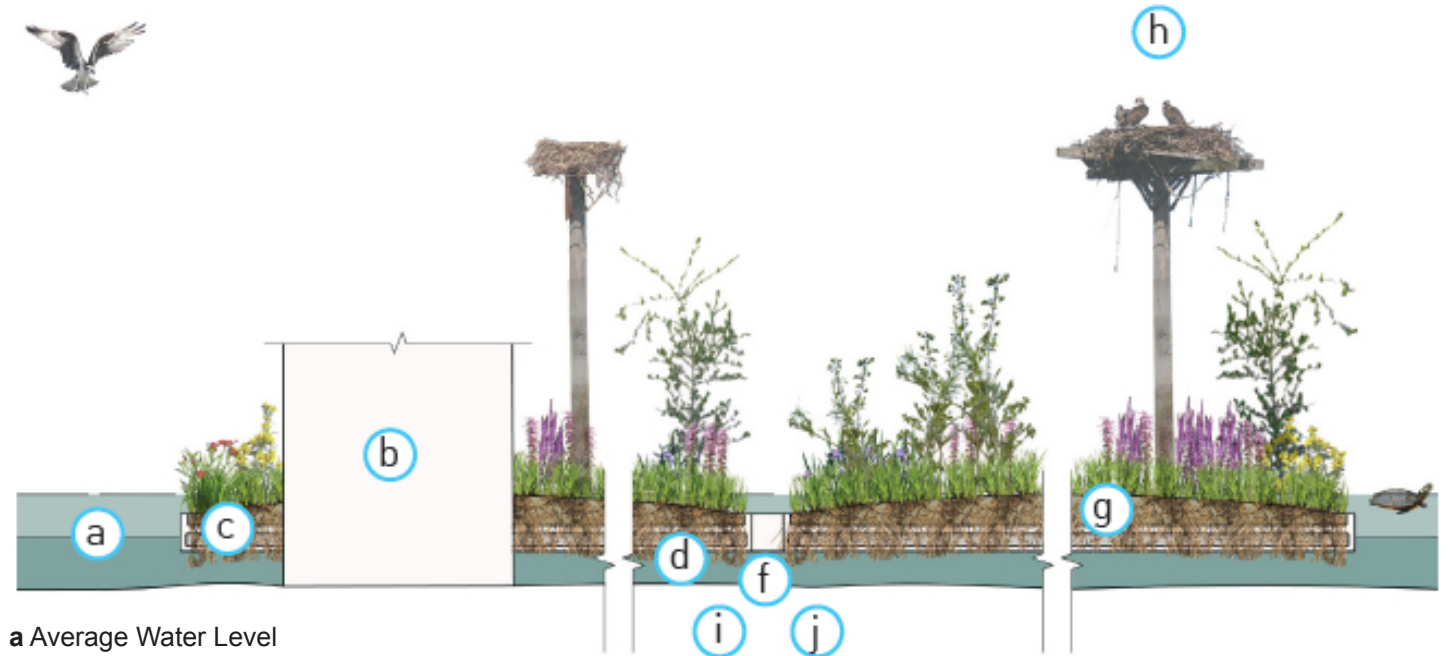
Winter River Rendering
Tom Leader Studio and Kennedy and Violich Architecture



Summer River Rendering
Tom Leader Studio and Kennedy and Violich Architecture

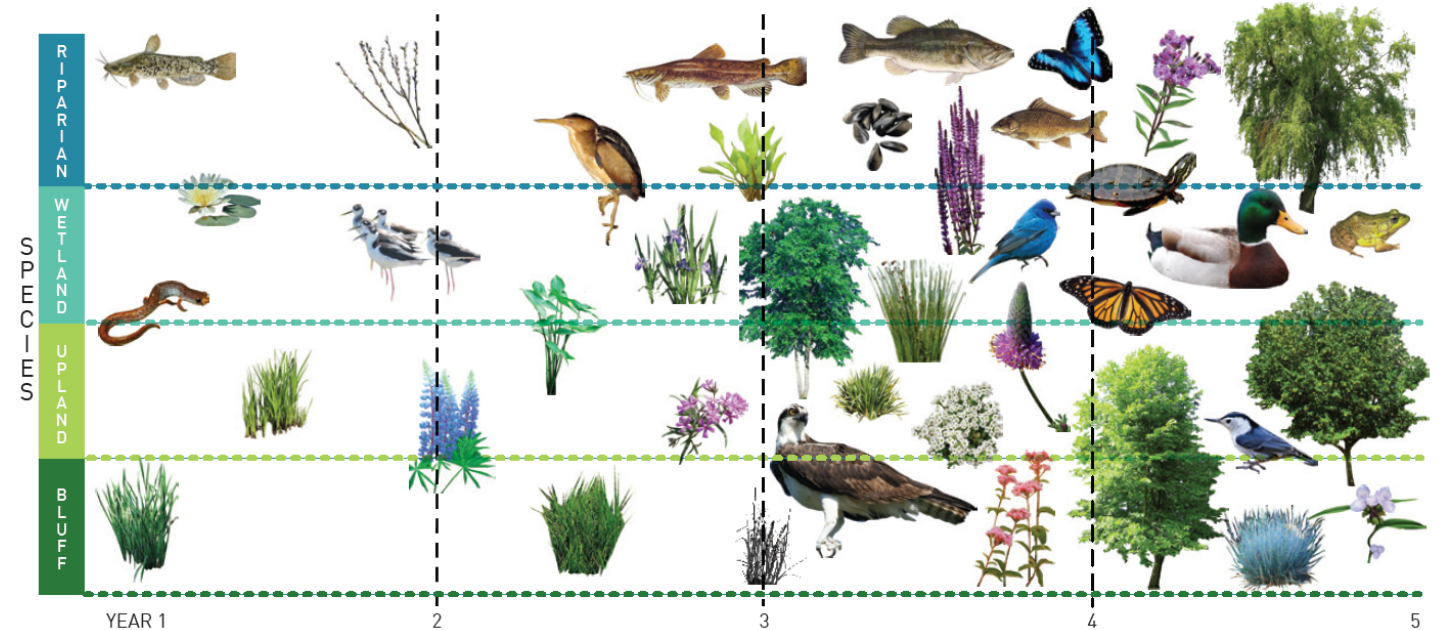


River Talk Phone Application Diagram
Tom Leader Studio and Kennedy and Violich Architecture



- a Average Water Level
- b Bridge Support
- c Float (Styrene foam)
- d Maintenance free dock construction material: reclaimed plastics, PVC
- e Pivot Point
- f Lightweight soil mix
- g Osprey nest habitat
- h Fixed Island
- i Floating island

Section of Islands
Tom Leader Studio and Kennedy and Violich Architecture



Projected River Biodiversity
Tom Leader Studio and Kennedy and Violich Architecture

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