Above the Falls
Policy Review and
Implementation Study
(ATF-PRIS)

REPORT 1
Scan and
Information Development
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Above the Falls Policy Review and Implementation Study

REPORT 1 — SCAN AND INFORMATION DEVELOPMENT

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Chapter 1. Introduction

Above the Falls: A Master Plan for the Upper River in Minneapolis (ATF Plan) represents the city’s current vision for Minneapolis’ upper river. Adopted by both the Minneapolis City Council and the Minneapolis Park and Recreation Board in 2000, it represents (in its own words) “a bold vision for developing the Mississippi riverfront into a regional park amenity in North and Northeast Minneapolis.” It sees the upper river as a unique asset that is magnificent in both scope and character. But the plan notes that the river’s charms are relatively unavailable to City residents, and are similarly underutilized as a tool for attracting new growth and investment.

The ATF Plan is equally compelling and ambitious. It recommends the development of a regional park facility along both banks of the upper riverfront from Plymouth Avenue to the Camden Bridge. It calls for complementary redevelopment of adjacent areas to support the new park and leverage its value. This entails a long term, major land use transition which would replace much of the existing industrial landscape with new residential neighborhoods.

At the 10 year anniversary of plan adoption, there is an ongoing, and even renewed, sense of urgency to advance its implementation. There are also, however, significant concerns about the sweeping redevelopment called for in the plan because of its impact on existing businesses and the shrinking supply of industrial land.

The City Council turned these concerns into direction to City staff through conditioning the adoption of its new comprehensive plan with the following direction:

“Direct staff to include the following considerations as part of the Above the Falls rezoning study to be conducted after adoption of The Minneapolis Plan for Sustainable Growth: (1) Explore policy and regulatory strategies for providing existing property owners clearer expectations about the phasing of long-range land use transitions; and (2) analyze and report back to the Council on the potential impacts of the land use guidance in the Above The Falls study area related to the extent and phasing of the proposed long-range transition from industrial to non-industrial development.”
ABOVE THE FALLS POLICY REVIEW AND IMPLEMENTATION STUDY

The Above the Falls Policy Review and Implementation Study responds to the direction of the Minneapolis City Council, and these dual impulses. It will address questions about the redevelopment vision of the ATF Plan through an evaluation of its policy basis. It will inform a City Council decision process that will result in modifications to, or reaffirmation of, the land use and development guidance of the ATF Plan. And it will undertake implementation activities in furtherance of the plan.

The Study will have two or three phases, with Phase II being undertaken only if directed by the Minneapolis City Council.

- **Phase I: Analysis.** Review and augment the analytical basis for evaluating the land use and development recommendations of the ATF Plan. Product will include a recommendation concerning plan modification.

- **Phase II: Plan Revision.** If so directed after the completion of Phase I, a plan revision will be undertaken by staff to modify the plan’s land use and development guidance.

- **Phase III: Implementation Actions.** Following affirmation or modification of the ATF Plan, staff will undertake actions to advance plan implementation.

The project is being managed by city staff with broad public and stakeholder engagement. Key stakeholders include the Minneapolis Park and Recreation Board (MPRB), Friends of the Mississippi River, Above the Falls Citizen Advisory Committee (AFCAC), the emerging Mississippi Riverfront Corporation (MRC), neighborhood and business organizations, and property owners. A cross-functional City-MPRB collaboration is serving as a technical advisory committee to the project. Initial presentations to stakeholders began in December 2009, and January 2010.

Note that, while there are strongly divergent views on the guidance of the ATF Plan, the outcome of this study is not pre-determined. It may result in modifications to the plan’s future land use map or other policy guidance, or it may not. In either case, it will contemplate implementation strategies that may provide more certainty to property owners about the timing of redevelopment.

SCAN AND INFORMATION DEVELOPMENT

This report, subtitled “Scan and Information Development,” is the first to be produced as part of the ATF Policy Review and Implementation Study. Its purpose is to assess the adequacy of existing information and analysis to support a decision concerning modification of the ATF Plan. To that end, it presents three types of information.

First, it sharpens our understanding of the geographic context through the mapping of property-based information.

Second, it reviews existing plans and analysis that bear on the two key questions:

- The policy merits of the proposed land use transition from industrial to residential
- The feasibility of attracting and fostering the proposed redevelopment in a realistic future market given site assembly and infrastructure challenges

Third, it offers several instructive case studies from comparable cities and regions.

The report concludes with recommendations concerning whether further information should be developed in order to support a well-informed decision about ATF Plan modification, and what the nature of that information would be.
Chapter 2. Study Area - Geography

Generally, the study area includes properties between the Camden Bridge on the North, Plymouth/8th Avenue on the South, Interstate 94 on the West and Marshall Street on the East. General characteristics may be described as:

- An area of approximately 2,000 acres on either side of the Mississippi River;
- The Study Area corresponds to Above the Falls study area, which calls for major land use transitions from industrial to mixed use and residential
- The west bank is characterized by large parcels and superblocks, some with riverfront and rail access. The east bank has similar pattern at the northern end, but otherwise smaller parcels due to the more residential character of adjacent areas.

For the purposes of this study, the study area is further divided into sub-areas. This facilitates a more thorough and detailed understanding of properties and existing uses within the study area. The descriptions and inferences are based on field studies and research. The map shows the sub-areas.

- **SUB-AREA W-1** – Area bounded by the Mississippi River, Plymouth Ave N, I-94, and West Broadway Avenue
- **SUB-AREA W-2** – Area bounded by the Mississippi River, West Broadway Avenue, I-94, and N Lowry Avenue
- **SUB-AREA W-3** – Area bounded by the Mississippi River, N Lowry Avenue, I-94, and N 42nd Avenue
- **SUB-AREA E-1** – Area bounded by the Mississippi River, Broadway Street NE, Marshall Street NE, and Plymouth Avenue N
- **SUB-AREA E-2** – Area bounded by the Mississippi River, NE Lowry Avenue, Marshall Street NE, and Broadway Street NE
- **SUB-AREA E-3** – Area bounded by the Mississippi River, 37th Avenue NE, Marshall Street NE, and NE Lowry Avenue
**Description.** This area consists of a mix of light-industrial uses located just north of Plymouth Avenue N., and scrap metal recycling, metal and masonry wholesale businesses along N. 2nd Street. Washington Avenue, which is visible from the I-94 corridor, houses a mix of light industrial uses such as the ASI Sign Company, Ambassador Press and Stremel Manufacturing which makes aerospace components. Commercial uses such as Emit Surplus Shoes, E-Z Stop Convenience Stores, Minneapolis Animal Shelter and BJ’s Liquor Lounge also exist along this corridor. Along West River Road, there exists a range of operations including the newly located Coloplast headquarters, a premier research and development centre featuring corporate offices, labs and training rooms. Other businesses facing the river include the Minneapolis Washer and Stamping, Pioneer Metal Finishing, Linen Effects and Carpet King. Northern States Power has a power substation along West River Road. This 4-block area is well connected to the I-94 freeway via the W. Broadway ramp. The W. Broadway Avenue and Plymouth Avenue bridges connect to the east bank, which has a mix of residential and nonresidential uses. The metal recycling facilities back on to Burlington Northern’s rail spurs, which crosses the river just north of W. Broadway Avenue.
**Inference.** Over the years, this area has seen a transformation from heavy industrial uses to light industrial uses housed in more contemporary structures with better facilities and parking. The North Washington Jobs Park, a 10-acre business park which houses a varied group of light industrial operations, is one such example. To some extent, certain clusters of nonresidential uses are seen. These clusters include a very visible scrap metal and recycling cluster between 14th Avenue and W. Broadway Avenue which is the heart of this area. A small paper and printing cluster is seen along Washington Avenue south of 17th Avenue N, and a significant metal products wholesaling and distribution cluster is located north of 17th Avenue N. Recent investments, namely Coloplast along West River Broad, may be categorized as a corporate office. Arguably, this area exhibits the most diverse mix of nonresidential uses in the upper riverfront. These uses include light industrial (printing, graphics and specialized manufacturing), heavy industrial (metal recycling and wholesaling), corporate offices, commercial wholesale and retail and infrastructure utilities. The success of this area may be primarily attributed to its location, with close proximity to downtown, infrastructure and roadway connections.
**SUB-AREA W-2** – *Area bounded by the Mississippi River, West Broadway Avenue, I-94, and N Lowry Avenue* (Image source: Google Maps)

**Description.** This area has a mix of heavy industrial, public facilities, light industrial and a residential apartment development. Washington Avenue, similar to the area south of W. Broadway Avenue, houses a mix of light industrial uses such as Air Power Equipment and Crankshaft Supply. Commercial uses such as Absolute Tire and Wheel and Holiday also exist along this section of the corridor. West River Road has a mix of public facilities, retail and housing. The City Park Board’s Offices and Broadway Pizza are located here just north of W. Broadway Avenue. Riverview Townhomes, a relatively new residential development, is situated at the terminus of West River Road. Lafarge, a supplier of dry bulk cement, is situated north of the curved tracks facing the river. Lafarge is the only user of the BN railway on the west bank and the only user of the BN bridge. Aggregate Industries, which sells sand and gravel aggregates, has properties to the west and north of Lafarge, with direct access to the river. Aggregate Industries is a primary user of the barging facilities and locks on the river. The City owns riverfront property between N 27th and N 28th Avenues. Between 28th Avenue and the Lowry Bridge, scrap metal operations by Alliance Steel and American Iron dominate the land uses. These businesses mainly acquire scrap metal and ship to recycling plants outside the area. American Iron is another user of the barging facilities along the river. A variety of light industrial operations such as Classic Auto Restoration, North Second Street Steel, American Chemical, Diamond, Vogel Paints, Art Tech Productions, and Al’s Restaurant Equipment are located and oriented along N. 2nd Street. Some of these operate in large warehouse type structures. Access to the I-94 freeway is limited in this sub-area and declines as one proceeds north.
Inference. Beyond the scattered distribution, services and commercial establishments throughout this sub-area, two major use clusters are prevalent. The first is a heavy industrial cluster distributing raw construction material and metals which is located along the riverfront and a much lighter creative arts and production oriented cluster around N. 2nd Street south of the Lowry Bridge. Overall, N. 2nd Street North in this area is a thriving mixed employment corridor possibly comparable to other business parks in the metro area. Industrial uses in this area are well established and often provide important functions such as the Minnegasco Tanks facility which supplies extra heating fuel in winter. It is apparent that over time, heavy industries in this area such as Lafarge and Center Point have invested in their properties to establish and operate their facilities. Although the use of the river for barging is as not critical to the operations of some of the industries as it is to Aggregate Industries and Alliance Steel, this mode of freight transportation -- if made more economically viable -- could be an alternative, low environmental impact surface transportation mode of the future. The segment just south of the Lowry Avenue Bridge is topographically and visually enticing with views to downtown and broad river views.
SUB-AREA W-3 – Area bounded by the Mississippi River, N Lowry Avenue, I-94, and N 42nd Avenue (Image source: Google Maps)

Description. The proposed new Lowry Avenue Bridge and its approaches will be the biggest visible transformation in this area. Just north of the bridge, along the river, is GAF, Inc. an asphalt shingle manufacturer and a major employer. The City is a major landowner along the river and owns property from 33rd Avenue N. to 39th Avenue N. This area, commonly known as the Upper Harbor Terminal (UHT), is used as a terminal for loading and unloading barges. A large portion of this site is used to store dredge spoils. North of UHT is a concrete crushing facility, an active barge user. Between UHT and the 2nd Street N (which merges with Washington Avenue and on the west side of 2nd Avenue) large flex space warehouses exist. Businesses that operate out of these areas include a taxi company, DJ Foreign Auto Care, Minneapolis Oxygen, Eddie’s Truck Repair, Highlight Painting etc. A religious use, namely the Hindu Dharmic Society, has recently located here. Along Washington Avenue and Canadian Pacific operates a rail line which runs parallel to the river. Access to the I-94 freeway is available on Dowling Avenue.
SUB-AREA W-3 – *Oblique Aerial* (Image source: Bing Maps)

**Inference.** The predominant use in this area is the Upper Harbor Terminal. Similar to the other sub-areas south of here, a diverse mix of businesses and even a religious use exist here. It may be argued that there exists a small auto oriented and transportation provider use cluster. Another apparent feature is the investments on facilities and operations made by manufacturing industries such as GAF, Inc. which may be significant when compared to light industrial flex spaces. A majority of this area being publicly owned and its apparent underutilization calls for redevelopment here. Indeed, this area has been called out as a prime opportunity site in the ATF Plan. Close access to rail, the freeway and a significant regional amenity, namely the North Mississippi Regional Park, make this area a prime location for higher and better uses. Another asset is the available infrastructure, be it roads, bridges and power. This area is well served on all counts and Xcel Energy maintains transmission facilities on both sides of the Mississippi River.
SUB-AREA E-1 – Area bounded by the Mississippi River, Broadway Street NE, Marshall Street NE, and Plymouth Avenue N (Image source: Google Maps)

Description. Scherer Brothers Lumber, which is in the process of relocating, and Graco, Inc., a light-manufacturing plant, are the major land users in this sub-area. The Minneapolis Park and Recreation Board is proposing to purchase the Scherer Brothers site with the intention of extending Boom Island Park. East of the study area is a fairly well established mixed use residential neighborhood with a commercial node at the intersection of Broadway St. NE and Marshall Street NE. A mix of commercial uses along this corridor includes bars, restaurants and neighborhood-oriented businesses such as a gym.
Inference. This area presents unique opportunities for two reasons, one being the change in ownership and the opportunities that unfold as a result, and the second being the unique block size and land configuration. These riverfront blocks are significantly larger than most and have the potential to accommodate much development intensity. The land configuration makes this area attractive to development and offers an opportunity to undertake a significant size project regardless of use. The superior location, being close to downtown, upper riverfront employment areas, parks and the vibrant communities of the northeast increase the potential of this sub-area.
**SUB-AREA E-2 — Area bounded by the Mississippi River, NE Lowry Avenue, Marshall Street NE, and Broadway Street NE** (Image source: Google Maps)

**Description.** The highlight of this sub-area is the Grain Belt Brewery Area, at Marshall Street NE and 13th Avenue NE. A redevelopment proposal by Sheridan Development Company in 2006 proposed primarily housing including ownership housing along with office/retail space and a number of attractive public spaces and amenities. However, this was never built, and much of the land is still owned by the City. The impressive Grain Belt Brewery itself is a designated historic landmark.

Further north, the land uses are characterized by a mix of light industrial uses such as Packaging Corporation of America, Boone Trucking rubbish removal, ACE Mailing, and smaller printing and allied service places. Commercial and retail uses are scattered throughout this corridor with a good number of restaurants and bars such as Dusty's Bar and Gabby's Saloon & Bar. North of the Burlington Northern rail spur/bridge, the study area is one-block deep and the river is visible from the roadway. Gluek Park and Edgewater Park are located along the river here. The character of the area closer to the Lowry Avenue Bridge is distinctly residential.
**Inference.** This area in the upper riverfront is unique as it has a more predominant mixed use residential character with light industrial uses scattered throughout. However, sweeping views of the more industrial-looking west bank are more pronounced here. Despite the existence of larger parks and more stable residential areas views of the west bank is a constant reminder of the riverfront’s industrial heritage. The Grain Belt Brewery Area and the commercial node stand out by virtue of appearance and scale. As is shown in the redevelopment proposal by Sheridan, this area presents redevelopment opportunities. Another characteristic is the presence of power lines along the riverfront and the presence of rail spurs serving the Scherer Brothers Lumber site.
Description. Before the closure of Lowry Avenue Bridge, the Lowry Avenue/Marshall St. node was the heaviest trafficked area in the upper river. The Xcel Energy Riverside plant occupies a significant portion of this sub-area and dominates the land uses here. This natural gas powered plant, recently converted from coal, supplies electricity to the region. The plant buildings themselves have a distinct character, with brick buildings and slender smoke stacks. The plant has barging capabilities. To the north and south of the Xcel plant are large open spaces. To the south is the much used Marshall Terrace Park and to the north are vacant sites owned by Xcel. The northern most part of this sub-area is occupied by two office type uses namely the Bureau of Engraving and Open Technologies, who recently purchased this property from Honeywell. The St. Anthony Parkway (part of the Minneapolis Grand Rounds) runs parallel and along the river at this point before taking an east-west orientation. Directly north of the Lowry Avenue Bridge are two industrial operations, namely Siwek Lumber and Marshall Concrete. Many trucks enter and exit these sites, which serves as a constant reminder of this area’s industrial use. South of Marshall Terrace Park are two residential properties with unique access to the river. The east side of Marshall is typically residential interspersed by restaurants and neighborhood commercial uses such as the Tiki Garden. Xcel has also acquired property to the east of Marshall Street NE between 28th Avenue NE and the St. Anthony Parkway.
**Inference.** Similar to the sub-area immediately south of this one, this part of the study area is one block deep. The major difference of this area from the other sub-areas is that land uses are characterized by much larger and single user operations such as Xcel Energy, Marshall Concrete and Open Technologies. This pattern is very distinct from the smaller type of operations often in flex type spaces seen for example on the west bank. Four distinct use clusters are visible, the largest in terms of land is the utilities function provided by Xcel. North of the parkway is a definite office cluster and south of Xcel, there is a building material manufacturing cluster. The area is also home to two significantly sized parks and open spaces in addition to the St. Anthony Parkway in the Northern end which is a significant amenity that adds value to the office and flex space uses there. In terms of land use transitions, the Xcel facility is a significant capital investment with transmission lines and other connected regional infrastructures. The relocation of these facilities may be a significant challenge.
Upper Riverfront Study Area – a glimpse
Chapter 3. Study Area – Characteristics

LAND USE
The existing land use in the study area, as included in the 2009 Minneapolis Plan for Sustainable Growth, the city’s comprehensive plan, is shown on the accompanying map. Primary characteristics include:

- The west bank is predominantly industrial with some commercial and a few isolated residential areas.
- The east bank is mainly industrial at northern and southern ends, but largely lower density residential in the middle with a mix of other uses.
- Residential areas are generally low density – less than 20 dwelling units per acre. These are characterized generally by single family and duplex homes, with some smaller scale and a few larger scale multi-family properties.
- Parkland is present along stretches of the river on both sides at northern and southern ends, but only on isolated sites in the middle.
- The largest concentrations of heavy industry are in the central and southern areas on the west bank.
- The future land use map is also in the comprehensive plan. Compared to the existing land use, this represents a major change in the mix of uses and intensity along the riverfront.
- Future land use for area is currently guided primarily by the adopted Above the Falls plan, which has been incorporated by reference into the comprehensive plan.
- In comparison with the existing land use, the future land use shows a substantial transition, especially on the west bank. Many currently industrial areas are shown as transitioning to residential and park.
- Industrial areas are confined to the designated industrial employment districts, as well as a smaller area near the existing Graco plant on the east bank.
Above the Falls
Existing Land Use

Legend

- Low Density Housing (up to 20 DUs/acre)
- Medium Density Housing (20-50 DUs/acre)
- High Density Housing (50-120 DUs/acre)
- Very High Density Housing (>120 DUs/acre)
- Congregate Living
- Commercial
- Mixed Use
- Public Institutional
- Cultural/Entertainment
- Transportation/Communication/Utilities
- Industrial
- Parks/Open Space
- Vacant
- Railroad
- Study Area
- Industrial District
- City Boundary
- Water

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Above the Falls
Future Land Use

Legend
- Urban Neighborhood
- Mixed Use
- Commercial
- Public and Institutional
- Transitional Industrial
- Industrial
- Parks and Open Space
ZONING

The current zoning reflects the existing land use much more than the future land use guidance. Existing zoning includes:

- Existing industrial areas are largely zoned industrial (ranging from I1 to I3), matching existing land use
- Residential zoning on east bank coincides with existing residential, but is generally higher density and than the existing single and duplex pattern in this area.
- The shoreland overlay district impacts at least the first row of parcels all along both sides of river
- There are some pockets of the Industrial Living Overlay District (ILOD) where residential development has occurred in formerly industrial areas
- There are also areas of I3 zoning on west bank in central area and port area, reflecting existing heavy industrial uses; also on Xcel Energy site on east bank.
OWNERSHIP PATTERNS

Although there is still a substantial amount of privately owned land, an ownership map of the upper riverfront shows numerous tracts of publicly owned lands, including railroads and utilities.

- The largest publicly owned pieces are (1) the park system on both banks and (2) the Minneapolis Upper Harbor Terminal area on the west bank.
- Railroads own track on both banks along much of study area, as well as rail yards on the east bank. Additional rail spurs are located on easements.
- Xcel Energy, a public utility, owns a large area on northern part of east bank around their Riverside Plant; there are a couple other smaller utility-owned sites on west bank.
- As is typical an interstate, there is significant public right-of-way along the I-94 corridor.
Above the Falls Ownership

Legend
- Railroad
- Study Area
- Industrial District
- private
- park
- transportation/other public
- utility
- City Boundary
- Water

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1,900 950 0 1,900 Feet
BUSINESSES, USES AND CLUSTERS

The industrial areas along the upper river contain a diverse mix of industries in terms of scale, impact, product, jobs, and other factors. However, a closer look reveals that the distribution is not random, and there are some identifiable clusters of like industries - including some identified in past studies such as Above the Falls. This map shows a representation of some of the most obvious of these aggregated business clusters based on a preliminary analysis. Key points include:

- Existing businesses are varied and range greatly in intensity, job density, and function
- Most parcels are occupied by active business interests with few noted vacancies visible or advertised; most “vacant” land is actually being used for parking and/or outdoor storage for an adjacent use.
- A preliminary analysis of existing businesses shows several interconnected clusters:
  - Construction and building materials – lumber, concrete, plumbing, windows/doors, etc. suppliers and installers
  - Creative – including arts, music, communications, etc.
  - Metal and metalwork – ranging from metal recycling to precision machining
  - Printing – printers, paper suppliers, sign makers, etc.
  - Auto service and parts – parts suppliers, repair shops, custom facilities, gas stations
  - Other aggregations include business and professional services, bars and restaurants, and religious congregations
- The major category of “green” businesses appears to be recycling; this is evident in scrap metal processing, concrete crushing, yard waste/compost sites, and paper recycling operations. These tend to be heavy users of the transportation network, including road, rail, and barge. Many have outdoor storage, as is visible from aerals.
- There are some high-profile industries that seem to function well but aren’t clearly connected to others – e.g. Coloplast, Graco, etc. Exploring their supplier networks and markets may provide insight into directions for economic growth.
- Potential advantages for industrial uses located here include: central location, interstate/rail/barge access, access to suppliers and customers, access to major utilities, and existing industrial zoning.
- There may need to be more analysis of smaller businesses located in multi-tenant spaces (largely on the west bank), which were not analyzed for this portion of the study.
Above the Falls Business Clusters

Legend

Land Use by Category:
- auto service/arts
- business services
- creative
- construction/building materials
- metal/woodwork
- other commercial
- other industrial
- park
- printing/paper goods
- professional services
- religious/institutional
- residential
- restaurant/bar
- transportation/other public use
- utility
- vacant

Railroad
- Study Area
- Industrial District
- Water

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1,800 900 0 1,800 Feet
PROPERTY VALUES AND CONDITION

Looking at the value and condition of property provides clues as to the level of investment and value in the property - and whether they are attractive for future redevelopment. Property value per square foot, building to land value ratio, and building condition each give insight into these issues.

- The highest values per square foot are in some of the residential areas, as well as some commercial and industrial buildings on the southern end of the east bank.
- The lowest values per square foot are along rail corridors and at the upper harbor terminal – presumably because both have relatively little value for uses other than what is currently on them, unless the sites are changed considerably. Accurate reassessments of these property values are less frequent, as they do not pay property taxes.
- The industrial sites range generally from medium to low value per square foot, with the exception of the Xcel Energy property. Smaller commercial/industrial sites right near I-94 also appear to be worth more per square foot.
- The building to land value ratio map follows a very similar pattern to the value per square foot pattern in the study area.
- The City periodically reviews the condition of all buildings citywide to assess their condition. They assign a rating of 1-7 to each building, with 1 being excellent and 7 being poor.
- In the study area, it is notable that the condition of buildings tends to be average to poor, with very few buildings in the better condition categories. This is true both in residential and industrial areas, not following the overall patterns of value in the other maps.
- The building condition data suggests both (1) aging buildings with few new structures in the area, and (2) relatively low level of investment in properties. A closer look at sites will determine which of these factors is predominant. However, it seems likely that this area has not experienced a lot of investment in the properties in recent years, even if the buildings and uses (residential, commercial, industrial and otherwise) remain viable.
Above the Falls Appraised Property Value Per Square Foot

Legend

- **Less than $10**
- **$10-$20**
- **$20-$30**
- **$30-$40**
- **More than $40**

- Railroad
- Study Area
- Industrial District
- City Boundary
- Water
Above the Falls
Ratio of Building Value to Land Value

Legend
Building to Land Ratio
- less than 1
- 1 to 2
- 2 to 4
- 4 to 10
- more than 10
- Railroad
- Study Area
- Industrial District
- City Boundary
- Water

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EXISTING INDUSTRIAL EMPLOYMENT SECTORS
See above Business Uses and Clusters section for more details on the identified clusters in the study area.

bullet The Industrial Land Use and Employment Policy Plan (ILUEPP) cited a regional study of industrial clusters based on location quotients, and added to/verified its findings. The four industrial sectors identified were: (1) printing and publishing, (2) computers and software, (3) medical devices, and (4) machinery and metalworking.

bullet All four of these were noticeable in the study area – particularly printing and publishing and machinery and metalworking. Coloplast represents the medical devices industry, and OATI represents software. The plan did note that software often was located in non-industrial areas, unlike the other three.

bullet The ILUEPP also identified several potential clusters, including: (1) Advertising and Telecommunications; (2) Arts; (3) Finance, Insurance, and Real Estate; (5) Professional and Technical Services; (6) Health Care; (7) Utilities. Again, all of these are present somewhat in the study area, with less emphasis on #3 and #6 which also might be more appropriate in non-industrial areas.

bullet The ILUEPP also classifies businesses by 21st Century, Opportunity, and Run of the Mill jobs. Without too much analysis, it appears that the majority of businesses in this study area tend to be Opportunity ones, characterized by lower job density than 21st Century but with more jobs offering good options for workers with less education. These jobs often provide workers with entry level positions where they can continue to develop skills and move up economically, and often offer good wages and benefits.

ENVIRONMENTAL CONDITIONS
The main environmental features of this study area are the river and its accompanying flood plains, and environmental contamination sites identified primarily within the industrial areas – common for industrial districts within older city centers.

bullet The flood plain areas are fairly limited, overlapping with shoreland overlay district. They are located particularly around Shingle Creek and just south of Lowry on west bank, and Sibley St on east bank. Except for the Shingle Creek area where the creek enters the Mississippi River, most of these are fully developed areas.

bullet The Minnesota Pollution Control Agency (MPCA) identifies nearly 300 sites in the study area with some pollution-related issues. These include sites with active issues as well as those with past issues on record. They include:
  - Air Permit (4 sites): Any businesses create air pollutants as they generate power, manufacture products, or perform other industrial activities. Air quality permits help to reduce the amounts of pollutants that these facilities put into the air.
  - CERCLIS (1): CERCLIS sites are places that are listed in the federal Comprehensive Environmental Response, Compensation and Liability Information System. This means that they are or were suspected of being contaminated.
  - Construction Stormwater Permit (3): When stormwater drains off of a construction site, it can carry sediment and other pollutants that can harm lakes, streams and wetlands. A construction stormwater permit is designed to limit this pollution.
- **Hazardous Waste, Small to Minimal Quantity Generator (113):** A small to minimal quantity generator is a facility that generates less than 1,000 kilograms (2,200 pounds) of hazardous waste or 1 kilogram (2.2 pounds) of acutely hazardous waste per calendar month. Like large quantity generators, SQGs and VSQGs must have current hazardous waste licenses. For more information on hazardous waste licenses.

- **Industrial Stormwater Permit (9):** At industrial sites such as factories, salvage yards and airports, stormwater may come into contact with harmful pollutants. Industrial stormwater permits are designed to limit the amount of these contaminants that reaches surface water and groundwater.

- **Landfill, Closed (1):** Closed landfills are landfills that are no longer accepting waste.

- **Landfill, Open (3):** Open landfills are landfills that are still accepting waste. This includes facilities that accept household garbage, industrial waste, and debris from construction or demolition.

- **Leak Site (16):** Leak sites are locations where a release of petroleum products has occurred from a tank system. Leak sites can occur from aboveground or underground tank systems as well as from spills at tank facilities.

- **Multi (105):** Multi sites are locations where there are multiple MPCA activities occurring. This could be a facility with a wastewater permit and an air quality permit, a cleanup site with multiple Superfund operating units, a site with a registered feedlot and a tank, etc.

- **State Assessment Site (1):** State Assessment sites are places that MPCA Site Assessment staff have investigated because of suspected contamination.

- **Unpermitted Dump Site (5):** Unpermitted dump sites are landfills that never held a valid permit from the MPCA. Generally, these dumps existed prior to the permitting program established with the creation of the MPCA in 1967.

- **Voluntary Investigation & Cleanup (VIC) Site (37):** The Voluntary Investigation and Cleanup (VIC) Program is a non-petroleum brownfield program. VIC provides technical assistance to buyers, sellers, developers or local governments seeking to voluntarily investigate or clean up contaminated land.
Above the Falls Flood Plain

Legend

Flood Plain
- 100-year flood plain
- 500-year flood plain

Railroad
- Study Area
- Industrial District
- City Boundary
- Water

Minneapolis
City of Lakes

1,800 900 0 1,800 Feet
Phase IA—Scan and Information Development

Above the Falls MPCA Sites

Legend

MPCA sites
- Air Permit
- CERCLIS Site
- Construction Stormwater Permit
- Hazardous Waste, Smart and Minimal QA
- Industrial Stormwater Permit
- Landfill, Closed
- Landfill, Open
- Leach Site
- Multiple Activities
- State Assessment Site
- Unpermitted Dump Site
- Voluntary Investigation & Cleanup (VIC)

Legend:
- Railroad
- Study Area
- Industrial District
- City Boundary
- Visitor

Minneapolis
City of Lakes

1,800 950 0 1,800 Feet
HISTORICAL RESOURCES

- There is just one historically designated property in the study area: The Grain Belt Brewery, located at 1215 and 1220 Marshall St NE, is locally designated and on the National Register. This former brewery is currently is being used as office space.
- A historic resource survey for the west bank has recently been completed; information will be reviewed when available.
- A historic resource survey of the east bank was completed in 2004 by Mead & Hunt, as part of a larger survey of Northeast Minneapolis.
- In the NE study, a few properties in the Above the Falls study area were recommended for local designation and/or National Register listing:
  - Minnesota Fibre Bottle Company Building, 2205 California Street NE – an industrial building constructed in 1915, located in the primarily residential area in the central part of the study area; currently home to Mill City Café and artisan work spaces
  - East Side Pumping Station, 3701 St. Anthony Parkway – a public works facility built in 1901 and located on the river near the northern end of the study area
  - The study also recommended that a comprehensive study of worker housing development in should be undertaken to identify significant property types and integrity requirements needed for individual properties and districts to qualify for designation, including an area bounded on the north by Lowry Avenue NE and on the west by Marshall Street NE, the south side of 22nd Avenue NE on the south and California Street NE to the east.

AMENITIES, PARKS AND OPEN SPACE

The river itself is the largest amenity and physical feature of the study area. Additionally, the area features numerous parks and several pieces of public art.

- Parks on the east bank include: Marshall Terrace Park, Edgewater Park, Gluek Park, and Water Street Park (planned Veterans Park); the Grand Rounds runs along St Anthony Pkwy with some adjacent parkland along the river.
- Parks on the east bank include: North Mississippi, Webber Park, and River Place Park; the Grand Rounds runs along Webber Pkwy and W River Road runs along the riverfront for a portion of the area with adjacent parkland and trails; the Minneapolis Park and Recreation Board (MPRB) headquarters is located there as well.
- Pioneers, a large granite statue created by John K. Daniels in 1936, is located at Marshall & Main Streets. It represents three generations of a pioneer family.
- Heart of the City, a statue created by Caprice Glaser in 2005, is located at 212 17th Ave N. It is inspired by the shape of the city, and has images that express the mission of Animal Care and Control, whose facility is located on the same property.
TRANSPORTATION SYSTEM
The area is well-served by a range of multimodal transportation options and facilities, suitable for moving both people and freight.

- The historic street grid network is largely intact throughout the area, with exception of large parcels on northern end of east bank related to rail yards and utilities and some larger superblocks on the west bank in industrial areas.
- Across the river, there are road bridge crossings at Camden (42nd Ave N to 37th Ave NE), Lowry Ave, West Broadway, and Plymouth Ave N/8th Ave NE. Rail bridge crossings are located near 18th Ave NE and 41st Ave N.
- Much of area on both sides served by rail – off of main lines coming into city on east bank near Shoreham Yards. The Northstar Commuter Rail runs nearby on the east bank.
- I-94 is a defining feature on west bank, bordering the area on the west side as the river defines it on the east; access to I-94 likely an important consideration for many businesses choosing to locate there.
- Currently upgrades are planned or underway on at least two of the bridges connecting the banks (Lowry Ave and Camden), and one in close proximity (St Anthony over rail yards).
- The Grand Rounds parkway system crosses the river near northern end of the study area.
- The City-owned Upper Harbor Terminal provides barging service for a few businesses in the study area. As it is neither heavily used nor profitable, its future is uncertain.
- Truck routes: I-94 is a primary truck route through the area. Lowry Ave, Central Ave, and University Ave also provide truck access.

RECENT INVESTMENT AND DISINVESTMENT ACTIVITY
In the past decade, investment in the study area has been more or less comparable to the rest of the City. Significant public investments were made in parks and infrastructure projects. A major private investment is the Coloplast Headquarters along the west bank near 17th Avenue North. In terms of disinvestment, the Scherer Brothers Lumber facility proposes to move out from its current location on the east bank near the 8th Avenue bridge. The following is a list of major property investments made in the study area.

- **Grain Belt.** The Grain Belt Brew House is a historic landmark that was renovated between 2000 and 2002 as commercial office space. The Wagon Shed and Shops Buildings were sold to the Minneapolis Public Library and were renovated as the Pierre-Bottineau Library. The Warehouse and Bottling House structures were sold to Artspace for use as commercial lease space. One historic structure awaits renovation and reuse and that is the Office Building, scheduled for sale and rehabilitation in 2009.

- **Marshall River Run Housing Development.** The Marshall River Run project is a mixed income multifamily housing development constructed in 2005 with ownership and rental components. The rental component is a three story building with 74 housing units. It required pollution remediation and received TIF pay-as-you-go financing from the City of Minneapolis in addition to other gap financing. The ownership component was 11 market rate townhome units fronting on Marshall Avenue.

- **Edgewater Park.** The Master Plan for this park was approved in 1996 and the Minneapolis Park and Recreation Board constructed this park in May through October 2006 with funding from the Mississippi Watershed Management Organization (MWMO). Artistic elements highlighted in this project include: “Park Landmarks” that are interpretive nodes of Minneapolis and St. Paul along the river, signage interpreting cultural and historical stories, no-mow turf, porous concrete,
pavers and gravel pave system, and a River Overlook with seating area.

- **Construction of Phase I trails and landscaping.** The Minneapolis Park and Recreation Board undertook trail and park construction in 2007 & 2008 on the west bank of the Mississippi between Plymouth Avenue and the Burlington Northern railroad bridge north of West Broadway Avenue. Bicycle and walking trails were constructed consistent with the model used elsewhere in the Grand Rounds system—along with landscaping and park improvements. Other improvements remain to be done in a second phase of construction.

- **BF Nelson.** This 12 acre park received a $775,000 grant from the Mississippi Watershed Management Organization (MWMO) to fund the design process and initial construction to convert the property. The earthwork, preliminary trail development and shoreline, wetland and native plan restorations were completed by the end of 2008.

- **Lowry Bridge Design.** The replacement of the Lowry Avenue Bridge is currently awaiting notice from the feds to proceed. A contract may be awarded as early as this fall, with an anticipated completion date in late 2011. The replacement of the bridge may be considered a step in implementing the Above the Falls plan because the design parameters of the ATF plan were used as criteria for evaluating the proposed bridge design.

- **Sheridan Memorial Park.** The Park Board is currently making the area of the Grain Belt Campus that abuts the river into a park. Future park amenities include a memorial reflecting pool and flagpole honoring all U.S. veterans, a peace garden, a picnic area and river overlooks. The City conveyed land to the Park Board for the park in 2008. The demolition of structures on that land is to happen soon. The Park Board also acquired an additional privately-owned parcel for the park.

- **Phase 1 East Bank Trail.** The Park Board acquired some additional land upriver from the Grain Belt for the planned Phase I east bank trail.

- **North Mississippi Park.** This park has undergone additional phases of development since the ATF Plan was adopted.

- **Coloplast Headquarters development.** The construction of the North American headquarters of Danish medical device company Coloplast, consistent w/ ATF land use and development guidance. The $35 million campus, located on a 5.4 acre site on the bank of the Mississippi River, will be LEED certified and will include one of the company’s three global Innovation Centers. The 178,000 square foot facility will house approximately 500 employees in sales, marketing, and research and development. Public funding for the project consists of $2.9 million in Tax Increment Financing, $500,000 from the State of Minnesota Investment Fund loan program, and $944,500 in environmental remediation grants.

- **Additional Development Projects.** Other projects completed since ATF approval include the Graco Expansion (which includes provision of an easement for a trail along the river), Riverview Homes, the Alley, and some North Washington Jobs Park projects (DHL, Stremel Manufacturing, and the pending Standard Heating)

The following map shows new construction building permit activity that took place in the Upper River area between the plan’s adoption in 2000 and the end of 2009. Around 50 permits were issued during this time period, worth around $85 million. Nearly 60% of the value was industrial, 30% was multi-family residential, and the remainder was a mix of single family, park, and commercial. This does not include building permits issued for renovation or expansion projects, which will be analyzed in future phases.
Above the Falls
New Construction
Building Permits
2000-2009

Legend
New Construction 2000-2009
- Single Family
- Multi-Family
- Mixed Use
- Commercial
- Industrial
- Other

Study Area
Industrial District
Railroad
City Boundary
Water

Minneapolis
City of Lakes
Chapter 4. Plan and Policy Context

2000 ABOVE THE FALLS MASTER PLAN FOR THE UPPER RIVER

In 2000, a far-reaching vision for the Upper Mississippi River area was formally established through the adoption of *Above the Falls: A Master Plan for the Upper River in Minneapolis*. The plan calls for continuous park frontage along both sides of the river, new residential neighborhoods, and job growth despite a much reduced industrial footprint. Since its adoption, significant steps have been taken in areas such as park and trail expansion, renovation of the Grain Belt complex, and laying groundwork for the establishment of the Minneapolis Riverfront Corporation. Large-scale redevelopment, envisioned to unfold over several decades, has been relatively modest to date.

The stated vision of this Plan is to create a continuous park system amenity along the riverfront to extend the intrinsic value of the river into local neighborhoods and the region. Heavy industry on the river is viewed as a land use conflict in its inability to provide a quality environment to attract new investment. The Master Plan addresses parks and parkway development, access to river, river ecology, neighborhood renewal, Marshall Street redevelopment, commercial navigation, heavy industry, housing development, parking and employment. The master plan land use map, shown to the right, reflects these proposed concepts and land use transitions. In summary, the highlight of this conceptual plan is the proposed parkways on either side of the river, in addition to a “riverway street system” running parallel to the river. The general pattern of land use transition may best be described as a progressively shifting away from industrial uses to residential uses as one proceeds north and away from downtown in the study area. The utility functions and uses on either side of the river remain.

Key detailed land use recommendations referred to in the master plan include:

1. Mississippi Promenade, a planned unit development – west of the river between W. Broadway Avenue and Lowry Avenue
2. Lowry Plaza, a planned unit development – west of the river in the vicinity of the Lowry Avenue and Washington Avenue intersection
3. River Terrace Neighborhood, a mid-high density residential area – west of the river north of 33rd Avenue to the Camden Bridge
4. Single family residential – east of the river between the St. Anthony Parkway and the Camden Bridge
5. Parks and recreation – east of the river between 16th Avenue NE to 28th Avenue NE
6. Commercial development, including the Grain Belt complex – east of the river between Broadway Street NE and 16th Avenue NE

7. Business park – east of the river between 8th Avenue NE and Broadway Street NE

It should be noted that the Plan incorporates these expressed planning objectives:

- **Grand Rounds**
  - A riverside park corridor

- **Access**
  - Public ownership of riverfront parcels
  - Continuous riverside recreational trails on both banks

- **Riverway Street System**
  - Parkways along both banks of the river
  - Integrated riverway street system
  - Enhanced streets leading to the river

- **Ecological Restoration**
  - Stabilize the riverbank and revegetate for wildlife habitat
  - Provide areas for stormwater retention and filtering
  - Identify contaminated sites and suggest approaches for remediation

- **Economic Development**
  - Create opportunities for new housing
  - Increase employment levels and density
  - Develop new tax base and stabilize neighborhoods

- **Urban Design**
  - Establish urban design principles to guide future development
  - Balance land uses and balance conflict
  - Explore alternatives for park features and destinations that recognize the area’s unique opportunities and culture

Area-specific constraints and opportunities in the Master Plan are outlined by geographic locations on either side of the river. The highlight of this assessment is that public agencies currently own over 50 percent of the linear riverfront. The summary also points to the fact that the stated planning objectives for this master plan study confront the historical inertia that has favored industrial uses in the upper river area.

Three concept alternatives were developed as part of the planning process. The planning principles used to develop these concepts include: reclamation, extension, connection, revitalization, progression, restoration, stabilization, destination, and differentiation. The first option proposed is titled Heavy Industry and Parks – Working River. The second option is Parks and Light Industry – The River Green. The third option titled Parks and Residential - The River Green. The titles suggest the emphasis and differences between the three concept alternatives. The third alternative, Parks and Residential, formed the basis of the preferred plan, which embodies select features from the other alternatives. The master plan diagram, also referenced as the preferred plan in the Master Plan report, was the result of this process.

The remainder of the Master Plan report contains detailed recommendations relating to specific topical areas identified under the planning objectives. More detailed recommendations are made for: land use, parks and urban design (broken down by geographic locations), environmental restoration, and implementation. The following are key points under each topic:

**Land Use Plan summary**

- Phase out heavy industrial uses
- Develop parcels between Marshall St. and the river from the BN Bridge to Marshall Terrace Park as parkland
- Transition riverfront parcels between North Minneapolis Regional Park and the terminus of the West River Road to parks and an urban riverfront promenade, and develop the remainder of the parcels as residential, office and hospitality uses
- Transition land uses adjacent to riverfront parks corridor to a mix of residential, office, light-industrial, and commercial uses
- Develop new riverfront residential and mixed-use communities on west bank
- Utilize the planned unit development category of the zoning code to allow the predominantly residential Mississippi Promenade District and Dowling Avenue area to include a mix of office, institutional, hospitality, and commercial uses
- Seek an overall density of 25 to 30 dwelling units per acre in the residential areas planned for the west bank, to create at least 2,500 units on 90 acres of net land

Parks and Urban Design Plan summary
- Create a continuous and integrated riverfront park and open space system along the Upper River
- Construct recreational trails along both banks of the river
- Provide space in parks for riverbank, landscape and habitat restoration
- Develop waterfront features in new parks, and nodes of interest at regular intervals along trails
- Preserve hospitality uses within parks corridor
- Establish a Riverway Street System, with common streetscape elements and signage that identify streets leading to and paralleling the riverfront
- Ensure consistent river access with public right-of-way developed on the regular street grid
- Designate no-build zones to hold view corridors to the river and downtown skyline
- Design and construct an urban riverfront promenade between the BN Bridge and Lowry Avenue
- Extend West River Parkway to North Mississippi Regional Park
- Align West River Parkway as a vegetated buffer between light industrial and residential uses between the BN Bridge and Lowry Avenue
- Convert the BN Bridge to a pedestrian and bicycle facility linking both banks
- Reconstruct Marshall Street as a boulevard, with new landscaping and bicycle lanes
- Maximize the potential of river and downtown skyline views on the west bank at the BN Bridge by allowing high floor area ratios

Environmental Restoration Plan summary
- Continue to monitor known sites of soil and groundwater contamination
- Conduct extensive investigation of all sites with possible contamination before public acquisition
- Clean up contaminated soil and groundwater in the Upper River corridor
- Install swales, basins, filters, and grit chambers to intercept and clean runoff
- Construct a system of area-wide water quality ponds that meet the highest standards for stormwater retention and filtration
- Add amenities to stormwater ponding areas to create a system of Water Filtration Parks
- Utilize soil bioengineering techniques to stabilize and revegetate banks and slopes along the Upper River
- Create a vegetated shoreland buffer and wildlife habitat through landscape restoration techniques in new parks along the Upper River

In conclusion, the Master Plan recommends major land use transformations to primarily residential and open space. Although this accomplishes the plan objectives of the Master Plan, it does not fully incorporate the ideals and balance expressed in the City’s overall goals as it relates to jobs, under the Premier Destination and Enriched Environment goal.
2004 UPPER HARBOR TERMINAL REDEVELOPMENT STUDY

The Upper River Harbor Terminal Redevelopment Study was a means to begin implementing the Above the Falls Master Plan. Redevelopment concepts for the Upper Harbor Terminal outlined in this plan followed the general direction of the Above the Falls Master Plan where the focus was on a continuous riverfront trail system and a change in land uses from industrial to mixed use and residential. The Above the Falls Plan focuses on the publicly owned land to initiate the recommended land use transformation and this 48-acre site and project was identified and undertaken as a result.

The purpose of the study is described as: “Friends of the Mississippi River along with American Rivers and a team of consultants have partnered with the City of Minneapolis to conduct the Upper Harbor Terminal Redevelopment Study. The study suggests how transformation of the UHT site could be done using innovative urban design and ecological principles as the basis for future redevelopment of the property. The study does not address the broad questions of pros, cons and implications of closing the terminal operation, nor does it include any significant reconsideration of the ATF Master Plan vision, principles and premises.”

The report documents the success of other riverfront residential redevelopment on former industrial sites. Riverview Condominiums further south along the Mississippi River and the Upper Landing and Emerald Gardens in St Paul are mentioned as successes. Three concepts with preliminary pro formas and cost estimates were developed. See schematic diagrams and alternatives analysis.

Key findings or prerequisites for any redevelopment effort to happen here were also identified in the plan.

- Land use transformation and housing redevelopment of the Upper Harbor Terminal site is complex but it has market viability and no insurmountable physical obstacles to redevelopment were discovered through the study.
- Strong collaboration between the City of Minneapolis and Minneapolis Park & Recreation Board will be pivotal for this complex redevelopment to occur.
- Because of the pioneering nature of housing redevelopment on the Upper Harbor Terminal site, a redevelopment project will need significant upfront public investment in core infrastructure and amenities to succeed.

Implementation steps identified in this plan include:

1. Formalize discussions about the project between the City of Minneapolis and the Minneapolis Park & Recreation Board
2. Complete a cultural resources assessment
3. Conduct a blight analysis to determine TIF eligibility
4. Prepare an engineering study of existing sanitary and water services in the study area and analyze stormwater mitigation
5. Prepare a phasing plan and link likely funding sources with capital project costs and evaluate the likelihood of those funds being available.
6. Negotiate the acquisition of private properties north of the UHT site.
7. Talk to Mn/DOT about plans for I-94 to gain a mutual understanding about planned and envisioned capital improvements.
8. Conduct contamination and geotechnical testing

In conclusion, the key findings and issues raised in the redevelopment study are relevant in 2010, especially the reference to pioneering nature of the suggested land use transformation and the associated infrastructure costs. As with the Above the Falls Master Plan, the connections to overall City goals and the implications of these major land use changes are not fully explored in the redevelopment study.
Upper Harbor Terminal Redevelopment Study

Alternatives

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**Table 3-1 Development Alternative Comparison**

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<th>Comparison Features</th>
<th>#1 - Village Park</th>
<th>#2 - Eco Park</th>
<th>#3 - Urban Park</th>
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2006 INDUSTRIAL LAND USE AND EMPLOYMENT POLICY PLAN

This 2006 analysis was partly prompted by Above the Falls and other plans that envisioned industrial to residential conversion. It explored the adequacy of industrially zoned land and proposed policies to preserve certain remaining industrial properties.

The main premise of the Plan is stated in three points: 1) The industrial sector contributes to the City’s economic diversity and property tax revenue; 2) The industrial sector is important to Minneapolis, and Minneapolis is losing industrial land; and 3) There will be a demand for industrial land.

The study estimates industrial employment at 58,200 jobs in 2004, which represents 21% of all jobs in the City. It also points to a key statistic that industrial properties, in fact, contribute more tax revenue per square foot than residential properties. The median tax payment per square foot for industrial users is $0.22 higher than residential. The study also explains how the definition of industrial is changing.

- Today, industrial means high-wage, life sciences research and development jobs.
- Industrial means growing and living-wage utility technician jobs that help Minneapolis residents move up the economic ladder. Industrial means laboratories and flex space just as much as warehouses. The industrial sector contributes to the City’s property tax revenue. Industrial uses contribute a higher median tax payment per square foot than residential uses. Our analysis shows a considerable tax base increase and tax revenue shift at conversion sites, but the market won’t necessarily support conversions in areas where the highest and best use remains industrial. Beyond the property tax effect, the net economic impact of a conversion depends on a host of factors.

The study points to the fact that the City has 3,986 acres of industrially zoned land, and less than 60% of all industrially zoned parcels are used as industrial. An important factor involved in the diminishing amount of industrially zoned land is the Industrial Living Overlay District, an overlay which allows the construction of residential development in industrial area where it would be otherwise prohibited. The corresponding graphic shows how the ILOD district has been applied throughout the North Loop neighborhood Warehouse District. This area has seen many of its industrial properties convert to residential ones through this mechanism. As these rezoning actions occur and residents move in, it creates a domino effect that results in the transition of more adjacent properties.

Another important statistic states that if existing adopted small area plans are realized, 43% of industrially zoned land (781 acres) in the Near North/Upper River area would be rezoned to non-industrial. The study also estimates that the Near North/Upper River area has approximately 214 acres of vacant industrial land. See table summarizing industrial land use changes in small area plans. In terms of the existing building supply, the building stock in the City is older than average for the region ranging up to more than 100 years old.
The average age of an industrially zoned building in Minneapolis is 59 years. The average building size is estimated around 37,000 SF, and the average FAR around 0.6, which compares to an average suburban FAR of 0.7. The average market value was around $40 per square foot in 2006. Data presented in the Study shows that the average acre of industrial in Minneapolis, for all industries and property types, has about 34 employees.

The study suggests that the City’s industrial areas are well positioned to capture demand mainly because of their proximity to major transportation routes. It also states that while site attributes still matter, brownfield redevelopment is more financially feasible, and scattered-site production is more common. Redeveloping sites for flex space will also work to the City’s advantage.

The Study forecasted that the City will undergo job losses between 2000 and 2010 and job growth between 2010 and 2020. Industrial employment in Minneapolis is expected to decrease by 5,260 jobs (-7.3%) between 2000 and 2010 and increase by 5,470 jobs (+8.2%) from 2010-2020.

It was also forecasted that there will be a shift away from heavy industrial users, such as manufacturing industries, toward light and medium industrial users like transportation and warehousing industries.

The Study touts an Industrial Scorecard method as a “new way of looking at industrial businesses & demand”. - three segments of industrial businesses emerge when we take the above observations and look at the industry-level: 21st Century industrial jobs; Opportunity industrial jobs; Run of the Mill industrial jobs. 21st Century the average number of employees per acre for these industries is 44, compared to 28 for Opportunity employers and 27 for Run of the Mill employers.

Highlights of the targeted jobs categories are:

- **21st Century Industrial Jobs.** 21st Century jobs are relatively high income industrial jobs in research and development related fields. They contribute to regional economic growth and also induce additional jobs due to employee spending. Examples include: instruments and devices manufacturing, pharmaceutical and medicine manufacturing, communication equipment manufacturing, architectural, engineering and related services, etc.

- **Opportunity Industrial Jobs.** Opportunity industrial jobs offer living wages to people with less formal education. They are in industries such as printing, machine shops and power generation. Examples include: building equipment contractors, general freight trucking, metalworking machinery manufacturing, furniture manufacturing, plastic and wood product manufacturing, etc. The majority of existing industrial jobs in the Above the Falls area appear to fall into this category.

- **Run of the Mill Industrial Jobs.** Run of the mill industrial jobs are generally lower paying semi skilled or unskilled jobs. Examples include: couriers, warehousing, grocery and product wholesalers, fruit and vegetable preserving, food manufacturing, etc.

In conclusion, the Industrial Land Use and Employment Policy Plan makes a strong argument regarding the need for protecting the City’s employment districts, be it in a new capacity – 21st century industrial jobs. Demand for industrial land exists and industrial jobs provide economic opportunities for city residents. It is also important to recognize that in a central city, there is a need to think of a diverse portfolio of land uses, not just maximizing highest and best use of each individual parcel and area at a given time. With the growing emphasis on sustainability and green jobs, land reserved for these uses in the future will be critical to economic vitality of the City.
**2009 COMPREHENSIVE PLAN**

The Above the Falls land use plan was fully incorporated into the future land use maps of the Minneapolis Plan for Sustainable Growth, the city’s current comprehensive plan.

Notable in the comprehensive plan is the discussion on industrial employment districts. The land use chapter specifically states, *the Minneapolis Plan calls for industrial districts to continue their employment and economic growth, acting as magnets for new investment.*

*The City’s Industrial Land Use and Employment Policy Plan identifies Industrial Employment Districts with the objective to protect prime industrial space and to provide an opportunity for the City to support targeted industries and business clusters and to redevelop underutilized sites for economic development purposes.*

Specific policy (1.14) in the land use chapter calls to *Maintain Industrial Employment Districts to provide appropriate locations for industrial land uses.*

Strategies addressing this policy include:

- **1.14.1 Develop regulations for the Industrial Employment Districts that promote compatible industrial development and the efficient use of land.**
- **1.14.2 Allow industrial uses outside of Industrial Employment Districts to transition over time to other uses.**
- **1.14.3 Restrict the development and expansion of non-industrial uses within designated Industrial Employment Districts, limiting non-industrial uses to the types of uses and locations designated in the Industrial Land Use and Employment Plan.**
- **1.14.4 Strongly discourage new residential uses in Industrial Employment Districts.**
- **1.14.5 Encourage and implement buffering through the site plan review process to mitigate potential conflicts between industrial uses and adjacent other uses.**

More discussion on the benefits of protecting industrial employment districts is presented in the economic development and transportation chapters as well.

In conclusion, although there is much policy language and discussion on the protection of industrial employment districts in the comprehensive plan, the future land use map in the plan is consistent with the adopted City policy – i.e., the 2000 Above the Falls Master Plan, showing large scale transitions to non-industrial uses.

See excerpts from the existing land use map and the future land use map as shown in the 2009 Comprehensive Plan.
OTHER STUDIES

- **Lowry Avenue Corridor Plan.** This 2002 plan established laid the groundwork for the reconstruction of Lowry Avenue, and established land use and development guidance for the corridor. An update to this plan is now underway for a portion of the corridor in North Minneapolis.

- **UHT Historical Survey.** Completed in the fall of 2007, this survey was done to satisfy, in part, a preliminary analysis in the Upper Harbor Terminal Redevelopment Study that suggested that the Upper Mississippi Harbor Development appeared to meet two National Register criteria. In addition, the ATF Master Plan provides a dramatically different vision for the area than currently exists. This survey will inform potential historic interpretation for this site.

- **Minneapolis Industrial Land Analysis.** Completed by the City’s Community Planning and Economic Development Department in 2009, this study is a detailed evaluation of developable and redevelopable land within the Employment Districts citywide. A suitability assessment of industrial property for development or redevelopment was based on several criteria including: size (preferably greater than 2 acres), and properties with a minimum dimension of 100’; ratio of building to land value with the lowest value identifying the properties most suited for redevelopment; and industrial zoning. Key findings related to the upper river area is stated in this report as follows – This 84 acre Employment District had no property found to be “most suitable” for redevelopment and only 2.4% of its area is impacted by rail lines. This District and the North Washington Jobs Park are adjacent to each other and are similar in their development pattern and low suitability for redevelopment.

- **Upper River Historical Survey (2010).** This recently completed survey was done in preparation of future redevelopment activities consistent with ATF. This survey will inform future potential historic districts, sites, and interpretive opportunities.
Chapter 5. Review of Analysis—Land Use

Land use considerations are the first of two major policy concerns that are being raised about the land use and development guidance of the ATF Plan. Implementation of the ATF Plan would result in a reduction of the city’s industrial acreage of about 18% over perhaps a 50 year period. So the issue is sometimes framed in terms of whether the City can afford to lose the amount of industrial land that the ATF Plan proposes. On the other hand, plan implementation would establish a beautiful new amenity and attract medium and higher income residents to some of the city’s most challenged neighborhoods. So some advocate for the plan’s vision because they want those community benefits.

Stated in more neutral terms, the question is one of balance. Both residential and industrial development confer important benefits on the City and community. But how much industrial land is the right amount for a city the size of Minneapolis? And given that, did the ATF Plan strike the right balance between the preservation of industrial capacity, and the growth and community revitalization that would be anticipated through riverfront redevelopment? On the other side of the question, how can the community benefits that derive from the redevelopment scenario be quantified and understood? This chapter looks at current and recent in formation to see what it offers in illuminating these questions.

Chapter Structure

Because of the many aspects of the land use policy issue related to the value of preserving industrial land and the value of creating new riverfront neighborhoods. This chapter takes a systematic look at existing information and analysis that relates to the most salient of these. It is structured in the following way:

1. Industrial Development
   a. Characteristics
      i. Industrial land use and jobs in Minneapolis

ii. Current trends in industrial development

b. Analysis
   i. General economic value
   ii. Provision of industrial jobs
   iii. Availability of land for business recruitment
   iv. Siting of heavy industry and public facilities

2. Residential Development
   a. Characteristics
      i. Residential land use and population in Minneapolis
   ii. Current trends in residential development

b. Analysis
   i. General economic value
   ii. Value for supporting regional park amenity
   iii. Value for contributing to neighborhood revitalization

3. Conclusion and Recommendations

INDUSTRIAL DEVELOPMENT: CHARACTERISTICS

Industrial Land Use and Jobs in Minneapolis

How much industrial land is there in Minneapolis? The Metropolitan Council develops generalized land use data in the seven county area every five years. These data show that, as of 2005, Minneapolis had 4,010 acres of industrial land. That’s about 12% of the total developed land area of the city.

As a share of the population, industrial land is more scarce. In 2005, there were 10.7 acres of industrial land for every 1000 residents. That compares with a region-wide figure of 18.5 acres per 1000 residents.
Of course, because of the population density of Minneapolis compared to the region, the same can be said of every land use sector. Every economic sector is required to operate on a smaller footprint.

**Industrial Land in Comparison Cities**

Chapter 7 contains some data from comparable cities that have recently conducted their own analysis of industrial areas. Due to varying ways data is collected, and the variety of conditions in each city and region, these numbers aren’t easily comparable.

However, there is one discernible pattern: the difference between “land locked” cities like Minneapolis, and those with open/expanding boundaries. Land locked cities, such as Washington DC and San Francisco, have a smaller amount of industrial land in terms of total acreage. Expanding cities, like Portland, Denver, and San Jose, have much larger acreages. The difference shows up in their analysis too–while expanding cities are generally unconcerned with the opportunity cost of converting one use to another, the land locked ones are very concerned with the tradeoffs involved, especially the generally one-way conversion from industrial to residential. These areas see their industrial areas as small, and shrinking.

The Washington DC plan made the observation, “Unlike many suburban jurisdictions with ample space for accommodating future growth, each development decision in DC carries with it an opportunity cost: the foreclosure of other development options.” It is likely the same holds true for Minneapolis.

**Industrial Jobs**

Industrial type jobs are associated with the Manufacturing sector, but industrial type jobs
can be found in other sectors as well—in particular in the Construction sector followed by the Trade, Transportation and Utility sectors.

The Quarterly Census of Employment and Wages is a survey of employers that is jointly administered by federal and state governments. It provides economic sector based data. It shows Minneapolis being in general a jobs-rich municipality, but trailing the region slightly in terms of industrial jobs. Following are a couple of views of the sector data from 2008. It shows employment in these economic sectors per 1000 residents.

Industrial jobs have been declining region-wide over the past decade. In the manufacturing sector alone, manufacturing employment in the 7 county area declined 18% from 2000 to 2008. Minneapolis experienced a greater decline with a 27% reduction in manufacturing employment over the same period. One implication of these data is that roughly two thirds of the reduction in Minneapolis manufacturing employment may be due to economic trends external to the City of Minneapolis.
Current Conditions in Industrial Development

The pressure on industrial land has roots in both internal and external processes. Recent plans have recommended industrial-to-residential land use conversions. These recommendations were supported by the presence of natural amenities, the development of new transit infrastructure, and/or an interest in reconciling long-standing land use tensions.

But there is also redevelopment pressure on industrial property outside of the boundaries of approved small area plans. This testifies to a weakening of the industrial sector nationwide over the last few decades, and the movement of industrial users to more suburban and rural areas, if not leaving the country entirely. At this point in time, many industrial properties in Minneapolis would have higher value for housing than they do for industrial businesses. And where that is the case, the savvy developer will sometimes pursue a rezoning.

A possible response to this market phenomenon is to allow it to proceed—that is, to simply support land conversions where residential prospects are stronger. The risks to that approach are that it may not take into account the possibility (or perhaps likelihood) that the trend lines will reverse, and the need for domestic industrial production will grow in the future. There may also be public or community benefits to the preservation of industrial land that are not reflected in the market value of the land. These benefits need to be identified in order to evaluate the adequacy of city industrial land before and after redevelopment of the Upper River.

In 2006, the Minneapolis City Council took an important step in that direction by adopting the Industrial Land Use and Employment Policy Plan (ILUEPP). This plan put important limitations on market-based industrial-to-residential land use transitions by establishing Employment Districts within which the conversion of property to residential is extremely difficult. The ILUEPP Plan also addressed the question of why we care about the preservation of industrial land by identifying two policy objectives that support this action:

- the preservation of industrial employment opportunities
- nurturing the growth of certain key industrial sectors

In this review of analysis we will address the question of how much industrial land is appropriate in Minneapolis in terms of these finer grain objectives. How much industrial land is appropriate to provide industrial employment opportunities to low income residents? How much industrial land is appropriate to provide development sites for businesses in strategic economic sectors? This study adds a third consideration. How much industrial land is appropriate to support a generally vital and balanced economy in the city and/or region?

If we look at the adequacy of city industrial land through these finer grain prisms, we have a better chance of understanding the impacts of implementing the ATF Plan. In summary, the following is a look at the adequacy of industrial land with respect to the following objectives:

- Industrial employment
- Land for business attraction
- Economic vitality

INDUSTRIAL DEVELOPMENT: ANALYSIS

General Economic Vitality and Diversity

It can be asserted that a robust industrial sector in Minneapolis is important because it contributes to a strong and balanced city or regional economy. There is general agreement that a diversified regional economy is beneficial because it is a relatively resilient economy. But do all economic sectors need to be represented equally throughout the region? The centrality of the urban core makes it particularly conducive to economic sectors that benefit from higher density development and the confluence of much of the region’s transit and transportation network. Land uses that are relatively land intensive have a more difficult time paying the land’s “centrality” premium.

One particular subset of industrial uses that bears further consideration is heavy industry. While both the Above the Falls Plan and the Industrial Land Use Study generally consider heavy industrial uses to be outdated and destined for obsolescence, recent observations suggest otherwise. Efforts to relocate these industrial uses have been met with affirmations from businesses that their current locations are
advantageous to themselves and the community, and indeed there are few other available sites that are suitable. Furthermore, the city’s increasing focus on sustainability points towards the need to accommodate green businesses — including those dealing in processing waste products for recycling and reuse, which often fall into heavy industrial categories.

On a different note, the presence of industrial and office jobs can help support commercial and retail establishments by providing “daytime population”. In a strictly residential/retail mix of uses, there may not be sufficient population present during the daytime, as workers have traveled to their job sites and may be inclined to do shopping and eating out in those areas. This is visible in Downtown, where recent market studies have shown that the retail market is largely dependent on the presence of office workers to support them. Additionally, retail/service jobs tend to be low-paying. While they can provide employment opportunities for low income individuals, they offer very limited opportunity for advancement or building wealth. On the other hand, residential areas do provide a “24 hour” presence in an area, which may both support businesses outside of the regular working day as well as bringing additional buying power to the area.

The following information and analysis bears on the value of industrial development for the Minneapolis economy.

Information and Analysis

ILUEPP Plan. Input Output Methodology. Four industrial to residential conversion scenarios were modeled. Results demonstrated that the impact could be positive or negative depending on the type of industry replaced, the scale of job loss, the market demand for the new residential units, and the aggregate income of the home buyers (which is closely related to residential density).

ILUEPP Plan. Tax Revenues. The ILUEPP Plan uses two methodologies to estimate the effect on the city’s tax base of industrial to residential redevelopment. One methodology shows industrial land offering greater more tax payments per square foot. The other methodology shows the residential conversion being more beneficial from this standpoint.

Conclusion

None of the studies reviewed have asserted that the shrinkage of industrial land (toward the area encompassed by the designated Employment Districts) would exert a damaging force on the city’s economy as a whole. The comparative advantages Minneapolis has in other economic sectors are abundant. It hosts, for example, the region’s office core, a flourishing creative economy, and rebounding neighborhood retail areas. And as transit systems continue to be developed, the economic advantages of centrality will almost certainly continue to grow.

Having said that, it is incumbent on us, to understand the marginal economic effect of the industrial-to-residential redevelopment proposed in the ATF Plan. The analysis in the ILUEPP Plan provided some information to that effect, and could be tailored to scenarios that are more instructive for the present purpose. We also have would benefit from understanding more about the specific businesses that would actually be affected by the ATF Plan. A simple questionnaire that solicited information about business type and number of employees could be very helpful.

Recommended Research

Economic analysis. Replicate and expand upon the analysis for areas proposed for Upper River redevelopment scenarios utilizing residential densities as proposed in the ATF Plan.

Tax Revenues. Tailor this analysis to some typical ATF scenarios.

Business Survey. Develop and administer this to gather information about economic sector and number of employees.

Provision of Industrial Jobs

Industrial sector jobs are valued because they tend to pay relatively high wages for entry level employees, and provide employment for people without advanced education. For this reason they are an important resource for the city’s low-income households. City industrial employment is determined by three factors.

- Industrial land supply
- Job density on industrial properties
- Percentage of industrial jobs held by Mpls residents

To provide maximum benefit to city residents, the industrial land supply should be ample, it
should be occupied by high-job-density industrial businesses, and these businesses should employ a significant number of City residents. Additionally, there should be a good match between the skills needed by the employers and the skills of residents – or a good training program in place that effectively closes any gaps.

Mpls Residents employed by Mpls industries = Mpls Industrial Land (acres) × Employment Density (jobs/acre) × Mpls Resident Share of Employees (jobs to Mpls residents/total jobs)

The following existing information and analysis bears on the adequacy low-income industrial employment.

**Information and Analysis**

**ILUEPP Plan. Employment Density.** Estimated existing employment density in Minneapolis for industrially zoned industries is around 34 employees per acre. The study disaggregates these estimates by industrial sectors.

**ATF Plan. Anticipated Employment Density in Upper River.** The ATF plan estimated that despite shrinkage of land area, additional job density on remaining industrial land could yield an addition of 2000 jobs. This is based on the assumption that “the land area designated for light industrial uses can be developed at job densities consistent with the MCDA’s guidelines.” There is no analysis of whether this a reasonable assumption, nor of the cost involved in the redevelopment of these existing industrial areas (which are currently almost entirely developed).

**ILUEPP Plan. Employment of Minneapolis residents.** A survey of industrial employers was conducted as part of this study to learn about how many employees are Minneapolis residents. It found a number of local employers for which city residents represented at least 40% of their workforce. These findings don’t lend themselves to deriving an overall estimate of local employment. Moreover, the number of companies surveyed isn’t disclosed, so the sample size could be very small and may not be representative.

**Hawthorne Business survey. Employment of Minneapolis residents.** As part of its Upper Mississippi River Industrial Corridor Report, the Hawthorne Neighborhood surveyed a number of businesses regarding their employment practices. Of the 98 that responded, 89 responded to a question asking about where

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**TABLE 3.6.1**

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<th>Assessor/InfoUSA Data Mpls</th>
<th>Puget Sound Study² Round 1</th>
<th>Puget Sound Study² Round 2</th>
<th>Portland Study³</th>
<th>So. California Study⁴</th>
<th>Rhode Island Study</th>
<th>Final Estimate Mpls</th>
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<td>21</td>
<td>25</td>
<td>62</td>
</tr>
</tbody>
</table>

All Industries            | 34                        |                           |                 | 34                     |                   |                   |

1. Because of small sample sizes and large outliers, median values are used. Industries do not match exactly; all other studies used SIC coded industries, where this data is NAICS industry coded.
2. Published as square foot per employee; adjusted to employee per acre by Maxfield Research Inc.
3. Published as building square foot per employee, adjusted to employee per acre by Maxfield Research Inc. based on published FARs.
4. Published by land use type; adjusted by Maxfield Research Inc., based on published tables showing land use by industry.

Sources: Pills, Vee and Bradford; Notebook Company Inc.; Rhode Island Statewide Planning Program, Maxfield Research Inc.
their employees live. Of the 2,870 employees represented, only 8.7% lived in North Minneapolis, with an additional 19.2% living in other parts of Minneapolis. It is noteworthy that overall, employers found it difficult to find qualified employees with 69% of respondents say it was either very difficult or somewhat difficult to do so.

**Conclusion**

Refreshing the formula that started this section, providing jobs to Minneapolis residents depends on:

a. Industrial Land  
b. Job Density  
c. Local Hiring

The analysis reviewed above leaves a lot of gaps. It is not sufficient to tell us whether the loss of industrial land can be offset by improvements in job density in the remaining industrial lands. We also lack clear information about the extent of local hiring by existing industrial businesses. New research can fill these holes and provide a clearer picture.

Further research can also provide insight on a related question. That is, which of three strategies are most cost effective—increasing (or preserving) the industrial land supply, fostering more job intensity on existing sites, or encouraging more Minneapolis employment at existing businesses?

It is evident from a review of the economic geography that, regardless of the prospects for offsetting the loss of industrial land by encouraging density and improving local hiring, there are many high quality employment opportunities that remain for low income residents in north and northeast Minneapolis. However, the Hawthorne study suggests that many may not be taking advantage of these, for a variety of reasons (including both skills required and employee recruitment strategies).

While there is certainly a priority for employing residents of Minneapolis, there are also gains to being an employment center for the entire region. One primary area is that of mass transit. The gradual and steady decline of mass transit ridership from the 1950’s until recently has reflected not only the out-migration of residents, but also the movement of jobs. Once concentrated near the center of the region, jobs are now dispersed across many smaller centers throughout the region. This dispersal makes it much more difficult for mass transit forms of transportation – both for people (bus, commuter rail) and for goods (freight rail, barge) – to function efficiently. Centralizing jobs in Minneapolis strengthens the resurgence of both passenger and freight transit. This in turn is of particular benefit to workers who do not drive – and to businesses that wish to employ these workers. To be balanced, it should be noted there are some advantages to centralizing residential uses as well, though that is primarily for passenger transit, not freight.

**Recommended Research**

**Business Survey.** Develop and administer this to gather information about employment of Minneapolis residents by businesses in the Upper River area.

**Best Practices on Fostering Local Employment.** As a companion to the survey, best practices research could focus on approaches other cities have taken to improve local employment in existing industrial businesses. This could improve our understanding of the potential effectiveness and cost of this strategy.

**Commuter and Freight Information.** To understand how the existing businesses employ residents, it would be useful to examine additional data on the commuting patterns for area residents, as well as data on where employees of local businesses live. Additional information on how mass transit and freight networks could show both the accessibility of these jobs and the way in which this central location connects to the larger freight network.

**Availability of Land for Business Attraction**

The ILUEPP Plan identified two industry clusters that are of particular strategic value for Minneapolis. They were termed 21st Century Industrial Jobs, and Opportunity Industrial Jobs. The plan recommended strengthening these sectors by attracting additional businesses in those categories.

Business recruitment in key industrial sectors can be pursued through different approaches. Certainly the City can invest staff and resources in marketing the City’s assets in a targeted fashion. At the other end of the spectrum, the City can undertake a program to create a pipeline of development-ready sites. This
requires a significant public commitment involving the identification and purchase of suitable land, and site readiness activities such as demolition and/or remediation of environmental contamination. High quality industrial firms were attracted to the North Washington Industrial Park through a former MCDA program of this kind. Almost all site assembly was from willing sellers. Heavy public subsidies were required. Currently, the City has no funds available for this time of high-investment intervention, in the Upper River or elsewhere.

A recently completed inventory of industrial land concluded that the clean buildable industrially-zoned properties in the City of Minneapolis are scarce. This is unsurprising for the simple reason that the City has been fully developed for some decades. New industrial development must typically be built on land that is has been in previous use. (This is similarly true for residential development.) Additionally, many remaining parcels are small or otherwise substandard, and resources needed to consolidate and/or bring the properties up to current development standards are lacking.

The redevelopment envisioned by the ATF Plan would affect the ability to institute such a business recruitment program in two ways. First, if industrially zoned properties are considered the candidate sites for business recruitment, the site inventory is reduced by 18%. Secondly, if the reduction in industrially zoned land increases the purchase price of other industrial land in the City, that also would make it more difficult to acquire property for business recruitment. The upward pressure on land prices will be greater if Minneapolis industrial properties compete primarily with other inner-city industrial property, and lesser, if they generally compete with industrial property metro-wide.

The following existing information and analysis bears on the prospects for doing business recruitment in the City of Minneapolis.

**Information and Analysis**

**ILUEPP Plan Appendix. Changes in Industrial Land Supply.** This plan suggests a range of strategies for recruiting business investment, with a focus on aligning resources towards targeted industries. It also explored the issue of declining industrial lands and its impact on competitiveness. The plan notes that just as Minneapolis and St Paul have been losing industrial land, suburbs such as Eagan, St Francis, and Rosemount are adding large amounts of industrial land over the same time frame.

**CPED Minneapolis Industrial Land Analysis. Candidate sites.** As a follow up to the ILUEPP, this analysis looks at the suitability of available industrial sites within the city for redevelopment, including an analysis of the Upper River and North Washington industrial employment districts, both of which fall in the Above the Falls study area. The analysis found very little land in each of these to be well-suited for redevelopment. None of the land in the Upper River district and only 3% of that in the North Washington district were considered most suitable for redevelopment, according to the criteria in the study. A more general look at industrial lands citywide suggested many of the most developable industrial sites in the cities were actually along the Upper River area outside of the designated employment districts.

**Conclusion**

The establishment of a business recruitment program depends on much more than the availability of industrially zoned land. But having said that, we don’t have good analysis on the degree to which it would be more difficult to establish such a program given the shrinkage in the industrial land base due to implementation of the ATF Plan. Additionally, there needs to be a better sense of the value of the industrial sites in the Upper River relative to the city’s total available supply of developable industrial land, as not all sites are equally suitable. This is particularly relevant as the adjacent industrial employment districts have very little capacity to accommodate additional industrial development, and a number of sites slated to transition to residential and park may in fact be attractive for industrial development.

**Recommended Research**

**Economic Analysis.** To understand the sensitivity of the price of land to a shrinkage in the land supply, and the relative value for business attraction and expansion of the industrial sites in the Upper River area to those citywide and region-wide.
Best Practices: North Washington Industrial Park. Review the city’s own recent history to understand the scope and cost of this recent flagship business recruitment program.

Siting of Heavy Industry and Public Facilities. Track with another city planning process underway to determine how siting of these facilities is accomplished, and what sites (including potential ones in the Upper River area) are most suitable for these uses.

RESIDENTIAL DEVELOPMENT: CHARACTERISTICS

Residential Land Use and Population in Minneapolis

The residential land use pattern is in some ways easier to track than the industrial one. It is relatively straightforward to note the type and distribution of housing units, their relative value, and changes thereto. The Above the Falls area, for instance, is characterized by largely low density residential, with a mixture of smaller scale multi-family developments and occasional larger scale ones. This is characteristic for much of the non-Downtown areas of the city as a whole, and likewise rather unique in comparison to more density-segregated suburbs.

In the 1990’s and into the 2000’s, there has been a large growth in housing stock in Minneapolis. This resulted in a reversal of the decades’ long decline in the population of the central city that has occurred since World War II. Besides being the obvious result of the housing boom, this does not tell much of a story by itself. However, looking at the characteristics of the growing population provides more insight. A couple key groups are described below.

The New Immigrant Population

Minnesota has typically seen a net out-migration of people, as residents move to warmer climates or more job-intensive areas throughout the United States. However, there has been a recent influx of new immigrants to the area. Immigrants, many from countries outside the United States, have been moving to Minnesota by the thousands. Origins include areas as diverse as Central America, Eastern Europe, East Africa, and Southeast Asia.

Like many previous waves of immigrants dating back to the early European settlements, these residents chose to live in the central city, with more affordable housing and access to jobs, transit, and public services than in outlying areas. These populations tend to be younger, have more children, and have larger households in general than more established resident households. And also like previous waves of immigrants, they tend to be lower income compared to established households – at least temporarily.

The presence of these literally drove the City’s population increase in recent years. If these immigrants are removed from the population totals, the increases in recent years disappears. This has major implications for the city as a whole, both in the present and in years to come.

These residents typically settled into more affordable (and often lower income) areas. Developers worked with public sector and nonprofit organizations to expand subsidized housing options as well. To avoid past errors associated with the concentration of poverty, there has been a focus on citing these in areas with less poverty, and on creating mixed income development.

As the neighborhoods around the Above the Falls area tend to be more affordable than other parts of the city, they unsurprisingly received a significant share of the new immigrant residents. This has impacted not only the residential population, but also the business mix – which has changed both from the influx of new immigrant entrepreneurs and a desire to serve the particular tastes and preferences of the new populations. From a public process perspective, this also presents additional outreach challenges. It also does not build capacity from within.

The New Urban Lifestyle Population

Another trend is very different, almost the opposite. Fueled by prosperity in the 1990’s and 2000’s, developers, planners, and others were able to meet the demand for a relatively new residential market for Minneapolis: affluent households that chose to live in the central city in higher density urban developments, including both apartments and condominiums. While there have been a few “luxury condominium” developments in Minneapolis since the 1980’s,
it took a number of years for the idea to gain widespread acceptance. However, the market became well established as people gained confidence that these properties were both an attractive option and held value for future buyers and renters. 

The demographics of the residents is not fully understood, but it is clear they are very different than the new immigrant population. The residents tend to be higher income individuals, many of which may have lived in the region (or similar areas) prior to choosing to move to Minneapolis. They also have much smaller households – typically only one or two people, in comparison to the larger immigrant households. They typically have few school age children, being in a life stage either prior to having children, empty nesters, or choosing to not have any children at all. Of course, there are exceptions, but this is a general trend. They value Minneapolis for some of the same reasons as the immigrant populations (access to jobs and transit), but also for access to arts, cultural, and open space/recreational amenities. Many also had the ideology of a more urban lifestyle, with an emphasis on walking, biking, or taking transit to destinations rather than driving - this being a choice, rather than an economic necessity. Unlike the immigrant populations, these groups are fairly easy to connect with, largely because of their ready access to electronic media.

**Current Trends in Residential Development**

The narrative above demonstrates two compelling forces that are driving demand for residential living in Minneapolis from two very different populations. As there is no sign these groups are leaving, even as the market itself is flagging, there still exists potential to further expand to meet demand in the future with additional residential development. Still, market momentum toward residential development is not sufficient reason to undertake extensive public action in support of residential redevelopment. Just as is the case w/ industrial development, we need to understand the benefits that it offers so that the tradeoffs with industrial development can be understood.

It is worth noting where the most comparable riverfront residential redevelopment is already occurring – i.e. Minneapolis’ own Central Riverfront area. While this development is mixed use, it has been predominantly residential. The results of the past decade are most visible in the Mill District, where blocks of parking lots (formerly abandoned or underutilized rail yards) have largely been converted to primarily moderate to high density residential, fronting on a continuous riverfront park with regular public access points. A similar pattern is found on the opposite bank of the river, in the East Hennepin/St Anthony Main area and to a certain extent in the Warehouse District – both areas with riverfront park access.

In addition to the amenity of being on the riverfront park, these developments have capitalized on convenient access to downtown jobs, shopping, and a wide variety of cultural/entertainment options, proximity of many transit lines including LRT, and significant public and quasi-public investments in the appearance and amenities of the area. Most new housing options in Downtown are moderate to high income (with a limited number of notable exceptions), which reflects both the target market of the developments and the high cost of land in the downtown setting.

As they are building in a fully developed area with a definite scarcity of premium lots, developers have built expertise at working with more challenging properties, and residents have accepted certain site flaws (e.g. close proximity to a freeway) in exchange for other desirable features. As developers are logically risk-adverse as a group, having workable models for urban-style development that can be replicated successfully is key to ensuring future development like this will be built by the private market – i.e. without huge amounts of public subsidy that makes a large scale area development infeasible. However, it also means there are more established and amenity-rich areas of riverfront development that are – for the time being – potentially competitive with the type of development and resident the Above the Falls plan would like to attract to the upper river area.

There is also the current state of the economy. The recent economic downturn has changed the housing market – definitely in the short term, and perhaps in the long term as well. It is too soon to tell on this account. In any case, it has
stressed the housing types for the two populations above. Immigrant/low income areas have seen an epidemic of foreclosures, impacting both homeowners and renters. Increases in vacant/boarded properties, ownership rates, and overall population of an area have resulted. Property values have plunged, represented a loss of accumulated wealth for these communities. Businesses serving the area have likewise suffered. Job cutbacks have further expanded the negative impacts, and erased some of the gains to affordability the new property values did create.

More affluent areas are somewhat buffered, but still seriously impacted. New developments have had trouble selling and renting units, having to reduce prices. Property owners, even if they have stayed, have lost significant equity. Projects in the pipeline have stalled and been cancelled or downsized. No one knows for sure what the future will hold and what the full impact of this recession will be. However, it is clear there are lessons to be learned about overly ambitious or speculative development strategies.

RESIDENTIAL DEVELOPMENT: ANALYSIS

General Economic Value

Information and Analysis

Redevelopment of industrial areas, as proposed by the Above the Falls plan, may increase the overall taxable value and hence tax revenues for the study area. This assertion is important not only as a measure of the public benefit of redevelopment, but as a justification for the significant outlay of public funds needed to make this redevelopment happen.

A quick look at the property values in this area show that the residential properties tend to have significantly higher value per square foot than industrial uses do. However, further analysis is needed to make this case – namely, the actual amount of taxes collected in relation to the taxable value, and how this is offset by the relative amount of public services consumed by industrial versus residential uses.

ILUEPP Plan. Tax Impacts of Industrial to Residential Conversions. An analysis was conducted to look at the tax impacts of converting formerly industrial properties within the City of Minneapolis to residential uses. The analysis did show a significant increase in tax value with the completion of the conversion. However, this result with qualified with several factors:

- The majority of projects were located in Downtown Minneapolis, and therefore the results cannot be necessarily transferred citywide. Downtown properties can command higher price points than other places can, and the Downtown buildings involved were both functionally obsolete as industrial properties and had distinctive architectural features – both of which are not necessarily true elsewhere.

- The increase of tax base does not necessarily equate to an overall increase in revenue, due to the way taxes are calculated. Additionally, residential properties may require additional public service expenditures that could offset the increase – this was not taken into account in the analysis. The plan also notes that with existing properties in the city, industrial properties actually contribute more tax revenue per square foot than do residential ones, since industrial properties are taxed at a higher effective tax rate.

ATF Plan. Economic Impact of Proposed Residential Development. The ATF plan estimates the redevelopment of 2,500 new housing units produced in the corridor through redevelopment would be $445 million (1998 dollars), adding approximately $12 million to annual property tax revenues. These would be populated by an estimated 4,400 additional people, with 400-500 of them being children. This would be fairly high density housing comparable to neighborhoods near Downtown. As in the ILUEPP plan, this does not appear to take into account any additional public costs associated with serving the new residents – e.g. schools, social services, other community facilities, etc. – or any costs associated with relocating the existing uses on these properties (e.g. loss of jobs, etc.).
Conclusion
The analysis in existing plans supporting residential redevelopment is very incomplete. While there is evidence that the tax base could increase with higher end housing replacing some industrial uses (which is not particularly surprising if a large area of the site is currently tax exempt property, as would be the case with City-owned land), there is no discussion how the additional cost of services for residential would impact the tax revenue impact. Furthermore, as noted in the ILUEPP study, not all industrial areas are created equal — and care should be taken in transferring lessons from one area.

Recommended Research
Economic Analysis. To better understand the full economic impact of converting land from industrial to residential, geared specifically to the study area. May want to do some site-specific analysis for key redevelopment areas.

Value for Supporting Regional Park Amenity

Information and Analysis
There is also the perception that residential redevelopment would provide a more attractive, accessible and compatible connection between the existing residential neighborhoods and a new riverfront park than would an industrial area. Likewise, the residents themselves could enliven the parks with their presence throughout the day, as they both enjoy using the park and provide some natural surveillance of activities going on there.
Additionally, residential uses might benefit more from the proximity to parks in terms of increases to property value than industrial uses might.

ATF Plan. Compatibility of Residential with Parks. The ATF plan asserts that “Fronting on new riverfront parks and a riverfront promenade, this new residential zone ensures a high level of use in the parks, thereby making them more secure and lively places.” However, there does not appear to be any specific research supporting these conclusions.

Conclusion
While reasonable, the assertions in the Above the Falls plan regarding the inherent compatibility of parks and residential uses need additional support. Parks in commercial and industrial areas may be used as well, particularly as this is a regional park amenity which may attract visitors from a distance away — as does the Grand Rounds, which draws people from throughout the region and beyond. Furthermore, while residential uses may bring some buying power, commercial and industrial users can as well — as evidenced in Downtown Minneapolis, where the retail presence is strongly connected to (and even driven by) the commuting workforce.

Recommended Research

Best Practices Research. Research of other similar redevelopment areas, consultation with subject matter experts, and literature review could help to better inform the relationship between residential and park development.

Value for Contributing to Neighborhood Revitalization

Information and Analysis
In the vision of the Above the Falls, building housing options along the regional riverfront park amenity is planned to attract more affluent residents than the typically lower income population in existing neighborhoods. The presence of more affluent and stable households can help strengthen the community fabric and support both private businesses and public institutions.

ATF Plan. Support for Neighborhood Revitalization. The ATF plan describes the housing stock as attractive to more affluent households, largely due to the regional riverfront park amenity, and easy bicycle and pedestrian access to Downtown and other destinations. Additionally, it states the housing could provide “move up” options for residents who are able to achieve financial gains and wish to stay in the area. It states that “residential uses will support new commercial development included in the Plan by bringing increased buying power to north and northeast Minneapolis. A relationship is also expected between new residents and business starts in the area, especially entrepreneurs based in units designed for living and work.”

These assertions generally make sense. However, what is not clear is that the area is automatically going to appeal to the target populations needed to spur this transition. There is also no discussion of whether the community might be more insular and less part
of the larger community – particularly as it appears it (as planned) will be very different in character and population than the nearby neighborhoods – and thus not have the widespread impacts envisioned.

Conclusion
While there is a good case to made that this could be an attractive redevelopment site, further research is needed to demonstrate both the feasibility of attracting affluent residents to this area, and the potential for spin-off benefits for the surrounding areas.

Recommended Research

Best Practices Research. Research of other similar redevelopment areas, consultation with subject matter experts, and literature review could help to better inform both the potential to attract the target residents and the potential for spin-off benefits.

CONCLUSION AND RECOMMENDATIONS
The stakes are high in proposing and implementing a plan to make a major-scale land use conversion as envisioned in the Above the Falls plan. The plan requires huge public and private sector investment, and just as success of a solid plan could produce dramatically positive results, the implications of attempting to implement a flawed are serious and long-lasting. Factors to be considered include:

- **The relative economic benefits of industrial versus residential uses.** Some analysis exists, but needs to be more specific, robust, and updated to ensure that there is both a net positive benefit for the city. The role of heavy industry should not be ignored.

- **The value to the adjoining community.** Whether local residents would be better served by good industrial jobs or an attractive residential connection to parks – or some combination thereof – is an important question. The assumptions stated in the plans on this topic need additional grounding in analysis and best practices research.

Recommendations are outline above, by sector. Generally, the scope focuses on additional economic analysis at both the large and small scale to assess relative value of development,
Chapter 6. Review of Analysis—Development Feasibility

Development feasibility is another concern being raised about the Above the Falls plan. Successful implementation of the plan depends on whether it is economically feasible, from both a public and private sector perspective. This is particularly true as the plan calls for large-scale transformations that are unlikely to happen incrementally without deliberate intervention and up-front investment. It should be noted, however, that fostering large-scale industrial redevelopment of the Upper Riverfront would similarly require major public sector investment and support.

Feasibility has two major dimensions: Return on Investment, and Timing. It is important to understand the level of public and private investment that is necessary to make redevelopment viable, and whether the expected return is substantial enough to justify the outlay. Heavy expenditure of resources may be justifiable if high demand for the development product leads to a sufficient return on investment. With respect to timing, it is important to be understand not just if a plan might be feasible, but when a plan might be feasible. It makes a big difference if the vision can readily be accomplished in five years, or if it must wait fifty years.

Evaluating return on investment, and the timing of feasibility, are necessary from the public sector’s perspective in evaluating whether to move forward in implementing the redevelopment vision in the ATF plan.

This chapter looks at four categories of feasibility as they relate to the Above the Falls plan:

- Cost of public infrastructure
- Cost of site assembly and preparation
- Demand for and timing of future residential redevelopment
- Demand for and timing of future industrial redevelopment

These sections will including a review of the information available on these from existing plans, and recommendations for further research needed.

PUBLIC INFRASTRUCTURE COSTS

For major redevelopment to occur, a significant up-front public investment is frequently required to pave the way for the private sector investment. Public infrastructure is a large component of this. This includes roads, bridges, parks, utilities, and other improvements to the public realm. In a developed city such as Minneapolis, much of this is already in place—although even where it is present, the quality and condition may need upgrading in order to support new or more intensive development.

The Above the Falls plan identifies the largest public infrastructure investment in the Upper Riverfront to be direct investments in the parks and parkways, and related improvements. These elements are the key amenities for attracting new residential development, and as such they are not optional for the plan’s residential redevelopment objective—although they do not have to be completed all at once.

Information and Analysis

ATF Plan. Public Investment. The ATF plan estimates that the cost of public infrastructure investments needed—namely, to parks, parkways, and related development—would be approximately $142 million total. These costs are for such things as: site acquisition and construction of the park and parkway improvements, improvements to gateway streets, building pedestrian bridges across I-94, a proposed Botanical Gardens and Conservatory, conversion of the Burlington Northern Railway Bridge, and reconstruction of the Lowry Avenue Bridge.” These costs would be higher in 2010 dollars. The project cost of the Lowry Avenue Bridge, bid out in 2009, came in at over $100 million all by itself.

The plan is vague as to the potential sources of revenue for this plan. It identifies a range of governmental entities and public sector grant programs as primary sources. Specifically referenced are Tax Increment Financing Districts, the state’s Legislative Commission on Minnesota Resources, and the activities of a (now recently formed) development corporation aimed at assembling support and resources for the plan’s implementation.

UHT Study. Infrastructure Costs. The Upper Harbor Terminal Redevelopment Study takes a
closer, more detailed look at the costs associated with the conversion of the UHT property into a residential and park development. Three scenarios are offered, with public costs from $22-23 million in each scenario, covering land acquisition, demolition, and the construction of core infrastructure (primarily utilities and street reconstruction) and core amenities (primarily park development and streetscape). The plan recommends TIF as a major source of funding for these improvements, but it does not evaluate the amount of tax increment that the development scenarios would generate.

Conclusion

Understanding public infrastructure costs is necessary for evaluating project feasibility and public return on investment. Projects can be derailed when costs come in higher than expected, and allocated resources simply fell short of what was needed. Property acquisition costs can be particularly difficult to estimate, especially the cost of acquiring active business operations. The Above the Falls budget allocates $40 million for “property acquisition, relocation, and demolition” but that amount could be used up quickly if acquisition terms were not favorable for the public sector. The Upper Harbor Terminal Study focused on a publicly owned property, so it did not consider the acquisition costs of privately owned properties.

Getting precise costs for all elements of the plan is not useful because it would soon become outdated. However, without a better understanding of the costs associated with infrastructure and amenity development, the public return on investment cannot be understood.

Recommended Research

Further development feasibility analysis. Do a development feasibility exercise similar to the Upper Harbor Terminal study for representative privately-held areas of the upper riverfront.

FUTURE SITE ASSEMBLY AND PREPARATION COSTS

In addition to park and infrastructure costs, site acquisition and preparation investments are also required to create clean buildable development sites. In practice, the public sector role varies from directly acquiring sites to offering technical assistance to potential developers. These categories of expenditures are described below:

- Site assembly. Existing property along the upper riverfront is of widely varying sizes, and under the ownership of many parties. But residential redevelopment along the upper riverfront would require assembling a significant amount of this property to ensure the development has critical mass, and is not overshadowed by incompatible neighbors. Various models of public private partnerships could be explored for this activity. However, given the scale of assembly needed, and the likelihood of dealing with holdouts, it is unlikely that a developer will undertake the lengthy process of land assembly on his or her own. Other parties, including the public sector, will need to play the leadership role in this endeavor.

Industrial redevelopment does not need to be undertaken at the same scale as residential redevelopment. So such activities are more easily scaled and phased. However, site assembly can still be a timely and costly proposition.

- Site preparation. Site preparation involves making a development site buildable through things like demolition of existing structures and cleaning up on-site contamination. Because older industrial sites often have environmental issues, addressing contamination is expected to be needed along much of the upper riverfront. This can be very costly, and the cost is typically higher if the site is to be utilized for residential development as opposed to industrial development. The public sector often plays an important role in funding the cleanup of environmental contamination.

Other development support is sometimes offered by the public sector. This includes covering the cost of foregone property taxes while land is publicly held, land write-downs,
and various types of gap financing for development projects. The exact extent and form of public assistance cannot be entirely ascertained up front, but it is important to be able to estimate the total public contribution to different upper riverfront development scenarios.

**Information and Analysis**

**ATF Plan. Facilitating Private Development.** The ATF plan estimates the public costs associated with facilitating private residential, industrial, and commercial development on both banks. It estimates $125 million for this category, though it appears the net amount may be lower after the revenue from reselling the property to a private developer is taken into account. This total is heavily qualified: “The second set of public costs, those not associated with parks and parks are very difficult to anticipate with accuracy because plans for private redevelopment are general, not specific.” The plan does note that this does not include the costs associated with the North Washington Jobs Park, as that initiative was being undertaken as a separate project.

**UHT Study. Supporting Private Sector Development.** This area is different than the ATF area as a whole, since the land is already publicly held and largely consolidated – so some site costs are not applicable. However, while this study does not include a detailed financial feasibility analysis, it suggests that private sector development likely will need additional public subsidy of project costs in order to be feasible and cover costs. These costs are not quantified.

**Conclusion**

Major redevelopment efforts in the city in years past have often included a substantial public subsidy for private development. This is particularly true in the case of “visionary” redevelopment strategies, where it is unlikely the first phase of any project is economically feasible without subsidy. More information is needed to understand the level of public investment necessary in the upper riverfront to further the vision of the ATF plan.

**Recommended Research**

**Further development feasibility analysis.** Additional development feasibility analysis is needed to both quantify the costs associated with redevelopment and to prioritize areas for investment. The TIF district concept, mentioned in several contexts, needs to be explored to determine if it truly is feasible.

**TIMING AND PRICING OF FUTURE RESIDENTIAL MARKET**

Residential or industrial redevelopment of the upper riverfront will require some public investment. But any realistic future will require that at some point development projects become financially viable from a market perspective. Will there be a market for riverfront living some miles north of downtown that is strong enough that it can cover some of the extraordinary costs associated with redeveloping the area? If so, when will that demand emerge?

The Above the Falls study assumes that people will be willing to significantly much more in this area than in the adjacent neighborhoods. This is based on the value ascribed to its central location and access to the riverfront park amenity. This price premium is necessary in order to make the development work. The community-building focus is that bringing middle and higher income households into a lower income area will help strengthen the community fabric.

The issue of timing is important as well – as emphasized particularly through the recent housing market crash. It is currently a difficult time to build new housing. This will change in the future, but the timing of that change is uncertain. Moreover, the emergence of an optimal market for new housing along the upper riverfront may have to wait for other premium areas, such as the central riverfront, to be built out.

**Information and Analysis**

**ATF Plan. Project Phasing.** The ATF plan has a very general concept for project phasing. It is not tied to any specific time frame, but rather to the relative ease and likelihood of various portions of the area transitioning to new development. The assumption seems to be that over the long term (30 years is mentioned as a time window), there will be a market for this housing. But it offers no analysis that supports this assumption.

**UHT Study. Private Sector Feasibility.** The UHT study is decidedly cautious about the potential
for residential redevelopment, even as it was completed in a relatively prosperous time in the housing market. It states “absent substantial subsidies, the costs of new construction push prices toward the high-end market tiers. While the work of this study has not included detailed financial feasibility analyses, rough calculations indicate that even with high price points, the proposed projects will face challenges in generating acceptable returns.” While no overall timeframe is provided, it sees the first phases of private development pushed out several years, and notes “private developers will require strong assurances regarding the design and timing of future physical improvements before they would be willing to invest substantial time, effort or money in a project on the UHT site.”

**Conclusion**

The studies to date have little support, besides general observations, for the claims that the proposed housing development in this area will be feasible both economically and within a reasonable time frame. While it may be true than in the long term, anything is possible, more specific analysis is needed to provide a basis for public investment – just as public investment is needed to provide a basis for private investment.

A cautionary tale in this scenario is one of the earliest residential riverfront redevelopment projects on the Upper River: the townhomes at River Pointe. To date, only the first phase of a much larger development plan has been constructed – and there have been continual conflicts with the surrounding industrial uses.

**Recommended Research**

**Market Research.** Conduct targeted economic and market trend research to estimate the level of demand for upper riverfront housing, and the timing of its emergence. Explore likely market niches and what other elements are required to strongly position housing development in this area.

**TIMING AND PRICING OF FUTURE INDUSTRIAL MARKET**

The Above the Falls plan does not envision any new industrial areas. However, an alternative to the plan’s vision would be the retention of more land for industrial redevelopment. Moreover, it also envisions the redevelopment of certain existing industrial areas to create business opportunities with higher job density, higher tax base, and lower impacts on the surrounding area than the existing mix has. The question: what is the likelihood of this happening, and over what time frame might it occur? The more specific question is the same as in the previous section: Is the present and future demand for industrial property strong enough that it can cover some of the extraordinary costs associated with redeveloping the area? If so, what is the timing of that demand?

These questions are particularly relevant in terms of the conditions in the industrial sector in recent years. There has been a steady decline in industrial investment in central cities, as businesses move to more advantageous sites elsewhere, or are eliminated entirely in response to increasing competition. Despite the advantage that a central location offers some industrial businesses, it is more than offset by the cost advantage of building a new industrial building at a cleaner and simpler development location.

Like the residential market, the timing of demand for industrial development is dependent on the timing of the economic recovery. Other long-term trends, such as increasing transportation costs, and the relative importance of rail for freight transport, may also affect the demand for these central city industrial sites.

**Information and Analysis**

**ILUEPP Plan.** **Industrial Demand.** This plan included a market analysis to look at the demand for industrial land citywide over a ten-year time frame. It applied a couple of methodologies which resulted in an estimated increase in demand for industrial acreage ranging from 158 to 237 acres over ten years, although it did not specify the assumptions that were being made with respect to the cost of central city land relative to other locations in the metropolitan area. The plan does not attempt
to draw too many conclusions, except to state there will be ongoing increased demand for industrial land despite past contractions in the industrial sector.

**ILUEPP Plan. Industrial Recruitment.** Like the ATF plan, the ILUEPP plan prioritizes higher job density, higher tax base, lower impact industrial uses. It recommends concentrating industrial assistance resources on the targeted industries, improving outreach to businesses, coordinating investments that benefit targeted employers, and other strategies. It suggests that outright purchase of industrial land is infeasible given the high costs involved, and public-private partnerships should be pursued in lieu of more public resource-intensive redevelopment strategies.

**Conclusion**
The Above the Falls plan suggests that industrial employment can be substantially increased, even as it is accommodated on a much smaller area of land. However, there is no acknowledgement of the resources needed to encourage such a transition. The North Washington Jobs Park provides a model for such a transition. But it was an extremely resource-intensive program.

**Recommended Research**

**Market Research.** Conduct targeted economic and market trend research to estimate the level of demand for industrial redevelopment along the upper riverfront, and its dynamics over time. Test assumptions about the feasibility of intensifying jobs while reducing the land supply.

**CONCLUSION AND RECOMMENDATIONS**
The stakes are high in implementing the land use conversion envisioned in the Above the Falls plan, given the required level of public and private investment. And just as the success of a solid plan could produce dramatically positive results, the consequences of pursuing an infeasible plan are serious and long-lasting. This chapter highlighted the importance of understanding the feasibility of possible redevelopment futures for the upper riverfront. The costs and revenues associated with these futures should allow an overall public return on investment to be estimated.
Chapter 7. Case Studies

COMPARABLE CITIES AND REGIONS

Below are some highlights from comparable studies of industrial areas – including some industrial riverfronts – in cities and regions with some similarities to Minneapolis and the Twin Cities. These relate to the existing conditions on the ground in a largely industrial area, rather than any different future scenario. For initial context-setting, these studies provide some insight into communities that have faced similar dynamics with transitioning industrial areas.

Note that this does not represent the full range of case studies that may need to be explored for this area. For instance, it would be valuable to have additional case study work done around the topic of housing redevelopment along riverfronts. This will be accommodated into future phases of study and analysis.

There is a stark difference between the studies of built-out cities such as Minneapolis versus those with expanding edges. The former are engaged in making decisions regarding if and how declining industrial areas should be transitioned or preserved. The latter are not concerned as much with these trade offs, as their edges provide ample room for all uses. While the former are more directly relevant to Minneapolis, the latter provide context of the larger market for industrial users, especially those most desired and sought after.

Some common themes emerge from these case studies:

- **Cities need industrial land for both industrial uses and public uses, especially quasi-industrial ones.** Planning for both these uses should be coordinated, as their needs overlap significantly.
- **Industry is needed for jobs, services to other businesses, taxes, economic diversity, economic and social sustainability, green businesses and practices, support for regional transit (both people and freight networks), preservation of buildings and resources, reusing and recycling, sustainable waste management as part of an urban resource management strategy, and synergy and networking with businesses.**
- **Businesses need flexibility, affordability, transportation access, access to suppliers/customers, and appropriate amenities**
- **Industrial ecology – the study of how industries interrelate and use each others’ outputs and waste products – is a useful construct in determining both the city’s competitive advantages, and advancing sustainability.**

**Industrial Land in San Francisco: Understanding Production, Distribution and Repair (2002)**

San Francisco reflects similar conditions to Minneapolis - a largely built-out city with industrial areas transitioning to residential and mixed use, reflecting both policy and market demand. This study outlines a category of industrial uses very similar to the mix in the upper river area, and describes its role in the San Francisco economic system.

- **Production, Distribution, and Repair (PDR) industries largely provide support services and products to other businesses; they remain as the core of the industrial area even after many other industries have left, and are a vital component. They include businesses associated with recycling, remodeling, and related industries.**
- **When planning, it is important to consider land uses that may be displaced by economic cycles and booms and may not return once gone.**
- **Businesses that remain located in a central city often have compelling reasons to be located there - customers, suppliers, labor, networks, etc.**
- **City should consider if there is room to accommodate housing without encroaching on industrial areas.**
- **Many "old economy" uses are as technologically advanced as new ones in how they conduct business.**
- **Central city industrial businesses are often smaller scale, and depend on**
close proximity to customers, other businesses, etc.

• All these businesses need flexible, affordable space, with some separation from residential areas to mitigate impacts.

• Research and Development space should be treated as a separate category, due to very different space needs (and the fact these uses generally need new space).

• PDR contributes to economic diversity, and has above average wages, especially for low income people.

• There are often important linkages between PDR and other sectors.

• It is often unrealistic for PDR businesses to relocate within the city due to lack of suitable sites, cost of new space is too high for them to afford; they may just go out of business if relocated. This points to a need to preserve existing industrial buildings.

• PDR uses often locate close to one another, creating clusters of related activities.

Denver Industrial Land Analysis
Denver, a still-expanding city, had no concerns about declining industrial areas. However, this reflected the city’s ability to expand on its outskirts, making new land available for industry as well as other uses.

• Industrial employment declining and low demand for industrial land.

• The study found little reason to be concerned about loss of industrial land.

• Using typology of areas of change vs. areas of stability to determine where redevelopment and transition should happen.

• To analyze properties. used land to improvement ratios and compared against median square foot value. Additionally, compared contributions to tax base and workforce density (by TAZ).

In contrast to Denver, Chicago saw great concerns with declining industrial areas, and sought strategies to assist in strengthening and building these areas. It took the approach of looking at what industrial areas needed to thrive.

• Considers itself a city of industrial neighborhoods, needing specific types of improvements to meet evolving needs.

• Businesses need safe, functional, and attractive places to do business.

• Public sector should provide efficient access to transportation, signage, streetscaping, other amenities.

• City should also discourage rezoning protected industrial areas to non-industrial uses.

Portland Citywide Industrial Land Inventory and Assessment (2003)
Portland undertook a highly detailed analysis of all its industrial parcels. However, the result centered around the limitations inherent in the data, which made it challenging to draw comprehensive conclusions about the properties.

• Did evaluation based on ownership rather than by parcel, since use can span multiple parcels.

• Considered presence of historic resources, site advantages and limitations, and many other factors.

• Concluded that many possible redevelopment sites were heavily constrained in ways that made it challenging for them to redevelop as planned.

Charlotte reflected the viewpoint of a city with expanding edges, looking outwards as to opportunities for industrial development. It typically viewed appropriate sites as larger, consistent with suburban style development and market demand.
• Inventory of buildings by class and type, land by zoning and size
• Four acres is minimum site required by most industrial users today
• Typical user assumed to occupy 100,000 square foot building
• 16,000 vacant acres of industrial land in metro area available

Industrial Land Use Analysis, City of Baltimore, Maryland (2004)
Baltimore is an older built-out city with transitioning waterfront. It looked towards redevelopment opportunities, but also at ways to make existing heavy industrial users into better neighbors through buffering and landscaping standards.
• Reuse of waterfront has encroached on industrial lands
• Industrial market stagnant or declining in recent years
• Relatively small available land inventory, and subsequent small projected absorption
• Plan to change zoning categories to more compatible ones
• Proposed buffering and landscaping standards for high-visibility sites and noxious uses - specific recommendations for scrap, salvage, rock-crushing
• Look at tax revenue by land use
• Develop guidelines for change-of-use decisions based on site characteristics and suitability for industrial use, as well as financial feasibility
• Specific recommendations by sub-areas, particularly those considered unstable

Industrial Land Use in a Post-Industrial City: District of Columbia Industrial Land Use Study (2006)
Washington DC recognized its industrial base was limited, but affirmed its importance and recognized that its needs were similar to many government and public use functions - which should be planned for together.

• Industrial land needed for businesses but also for space needs of government and public entities, many of which are quasi-industrial in nature and hard to site
• PDR uses pay premium for space because want to be located in central city
• “Considered in isolation, each individual development site could be subject to its own highest and best use analysis. Taken together, however, they represent a portfolio of assets that District government could and should manage in a strategic manner specifically because these assets are scarce. Unlike many suburban jurisdictions with ample space for accommodating future growth, each development decision in DC carries with it an opportunity cost: the foreclosure of other development options.”
• Classified lands by those (1) facing imminent and growing development pressures, (2) concentration of healthy PDR businesses, (3) relatively underutilized, (4) friction where industrial uses abut incompatible land uses.
  ○ Pressure: allow some to transition, save strategic others
  ○ Healthy: retention and reinforcement
  ○ Underutilized: retention and intensification; also consider for public uses
  ○ Friction: change or buffer
• Government uses should strategically acquire land; single-agency asset management; co-locate facilities; reduce land demand when possible

Los Angeles Industrial Land Use Policy Initiative
Los Angeles also saw the transition of industrial land into other uses, and outlined some of the challenges associated with this.

San Jose focused on a fiscal analysis of various development scenarios (e.g. transitioning from industrial to residential). While providing some interesting details, its main finding was that the feasibility and desirability of these scenarios was deeply dependent on the specifics of the site, the economics involved in development, the intensity and value of the existing and future uses, and other factors.

- Categorize industries by Driving Industries, Business Support Industries, and Household-Serving Industries
- Detailed fiscal analysis of converting properties to non-industrial use; conversions not a valid opportunity in many areas – mainly in downtown; whether it is a positive or negative impact depends on wide range of variables including market for alternative use (e.g. condos)
- Largest bulk cost associated with residential development is parks

Protecting and Growing New York City’s Industrial Job Base (2005)

Like Chicago, New York focused on how to make its area more attractive as a place for industrial users to do business.

- Challenging place to do businesses – survey indicated businesses had a number of complaints
- IBZ’s protect industrial areas from other uses
- Focus on addressing problems with doing business in NY with various outreach strategies

STATISTICS

Some selected statistics were compiled. Since these are not routinely reported, the availability varied by jurisdiction.

There are few clear conclusions to draw from these statistics, as there are no definite patterns – and the way the numbers are compiled varies greatly.

No studies surveyed seem to have landed on a good idea of what the “right” percentages were for each of these. Instead, the direction seemed to be in favor of more qualitative rather than quantitative tools for understanding the industrial network, including understanding supplier networks, type of jobs, function of industry as part of the larger economy, aggregations of industrial clusters, etc.

That said, all built out cities (i.e. those with a finite supply of land, mostly already developed) recognized the ever-shrinking pool of industrial lands and therefore industrial businesses and jobs to be an issue that needed to be addressed. While the statistics below are not easily tracked across time – let alone across jurisdictions – they all recognize this ongoing pattern.

Amount of land zoned industrial and % of total

- Minneapolis – 3,986 acres (16%)
- San Francisco - 3,254 acres (14%)
- Denver - 7,277 acres
- Portland - 15,473 acres

- Land being converted to non-industrial uses
- Paradox of industrial lands – very low (2-4%) vacancy rates in industrial space, declining employment, but also stable rents; price constraints on firms and condition of properties keeps rents low
- Converted land has higher assessed value
- Small parcel size is problematic in redevelopment

- Infrastructure should follow development, but developers should pay for it, not the general public.

Ames Industrial Study (2002)

Ames, Iowa had a similar analysis with similar conclusions to Charlotte’s - its wide-open edge provided ample opportunity for industrial growth. While not directly comparable to Minneapolis, it is still worth noting as Minneapolis is competing against areas such as this to draw new firms.

- Need large amount of land for industry – and it is available.
• Washington DC - 2,025 acres (5%)
• Los Angeles – 19,045 acres (8%)
• San Jose – 13,000 acres (13%) is “active employment” land

Number of industrial jobs and % of total
• Minneapolis – 58,220 (23% of total)
• Portland - 101,389 jobs (1/4 of total)
• San Jose – 54% of total
• Los Angeles – 509,000 jobs (28.5% of total)
• San Francisco – 45,293 (less than 1/4 of total)

Percent of industrial land used for non-industrial purposes
• Minneapolis – 41%
• Denver - 746 acres (12.8%)
• Portland - 4% in sanctuaries, 37% in other industrial areas
• Los Angeles – 4,922 acres (26%)

Percent of industrial land in protected/designated areas
• Minneapolis – 2,784 acres
• San Francisco - only 4.5% of 14% total is guided for industrial (around 1,000 acres total)
• Portland - 13,800 acres in industrial sanctuaries (1/4th)
• Los Angeles – 4,792 acres (25%) are in redevelopment areas

Percent of industrial lands that are vacant
• Minneapolis – 631 (16%)
• Denver – 1,471 acres (20.2%)
• Portland - 2,900 acres, mostly constrained
• Washington DC - 27 acres (1.2%)
• Los Angeles – 1,700 acres (9.4%)
Chapter 8. Preliminary Findings

These preliminary findings are based on the research and analysis presented in the previous sections of this report. The findings are informed by study area conditions, the land use regulatory environment, previous studies and reports, and case studies of other comparable cities and regions.

STUDY AREA UNDERSTANDING

1. **There exists great development potential along the upper riverfront** especially considering that a significant portion of the land is publicly owned.
   - Development potential may include but is not limited to employment generating uses, residential, institutional, commercial, open space and various combinations of these.
   - There exists sufficient properties predominantly near the Upper Harbor Terminal area to undertake large scale and transformational public or private projects that could become a economic and social catalyst for the area.
   - The development potential and quality of the upper riverfront could be greatly enhanced by improving access to the Mississippi River through parks, open space, trails and or other public amenities that could benefit the City and its residents.

2. **Current industrial and employment oriented uses appear to be healthy** and functionally operational (not blighted).
   - Apparent business clusters exist, although their interrelatedness is currently unknown.
   - Some businesses seem to be relevant in the larger economy in that they perform important functions such as recycling.
   - There are limited vacancies, and few properties for sale.

3. **Area characteristics are a complex mix, suitable for both residential and industrial development.** It has premium transportation connectivity for both motorists and freight. It is close to downtown Minneapolis. And the Mississippi River is a unique amenity that will be improved over time with a continuous park frontage.
   - Excellent access to the freeway system and proximity to downtown are more important locational characteristics for most existing industrial users than proximity to the river. For certain businesses, access to the river and the Burlington Northern and Canadian Pacific rail lines is very important.
   - Proximity to the river and downtown Minneapolis would be the most important characteristics supportive of residential development.
   - The infrastructure in the upper river area has the capacity to support more intense uses which may include employment generation, residential and nonresidential uses.

4. **A substantial amount of public investment is required to move the plan toward implementation.** The plan is extremely ambitious in the envisioned scale of land use transition.
   - Readying sites for redevelopment may require acquisition of income producing property, demolition of buildings, environmental remediation, reconfiguration of the street network, and extension of the utility infrastructure.
   - The extent of the public investment that will be required to attract private development interest is not clearly understood.
CHANGES SINCE ATF ADOPTION

5. The real and planned loss of industrial land is significantly greater than it was in 2000.
   - Many residential developments have been built on formerly industrial lands since 2000.
   - Implementing all of the plans City’s approved small area plans would result in about a 30% reduction in industrially zoned land.
   - Land use changes in the upper riverfront represent a substantial reduction in industrially zoned land.

6. A national paradigm shift in planning emphasizes sustainability and green development.
   - Local industrial production and efficient rail transportation may play increasingly important roles in the future.
   - Some former industrial cities have transformed their riverfronts while retaining employment capacity.
   - While not among the most sought-after sectors, the concentration of recycling businesses (metal, concrete, compost, etc.) in this area represent an important component of green industry through their contributions to reducing the waste stream.

7. The market for urban living has heated up. The urban flight of decades past has reversed, as evidenced by consistent growth in the City’s housing stock through the 2000s, and the creation of thousands of new multifamily dwelling units.
   - Most new development was attracted to high amenity sites such as in or near downtown, water or park amenities, activity centers, retail hubs, or high quality transportation facilities.
   - With few uncomplicated development sites available in the City, developers have successfully pursued some developments even where there were conditions that traditionally make new development difficult, such as near highways or railroads.

8. There is a greater appreciation for the challenge of locating heavy industry, including public sector operations and facilities.
   - There are several large heavy industrial facilities on the upper riverfront that would be a challenge to relocate.
   - Efforts to relocate certain private and municipal industrial operations over the past decade have been unsuccessful to date.

EXISTING RESEARCH AND ANALYSIS

9. Relevant City plans tend to deemphasize the opportunity cost of land use decisions. Land use guidance is framed in terms of the desirability of an outcome, but tradeoffs are generally underplayed.
   - The ATF Plan didn’t fully consider the impact of industrial land reduction since it asserted there could be a net increase in industrial jobs despite a decrease in land, based on very positive projections regarding increases in job density.
   - The ILUEP Plan used certain methodological approaches to compare benefits of industrial versus residential development, but there were important limitations to the conclusions.

10. The findings of citywide or neighborhood topical plans and studies may not always translate to the upper riverfront. Further work is required in some cases to determine whether the general conclusions would hold true for this specific geographic area.
    - Some important analytical findings in citywide industrial studies are based on generalizations that may not hold true for the city’s upper river.
11. Certain important questions have not been addressed in existing work.

- The role of heavy industry and the location of public facilities have not been evaluated in any of the plans and studies reviewed.

12. Important gaps exist in understanding the feasibility of the land use recommendations in the ATF Plan.

- While the costs related to site assembly and preparation, and infrastructure provision, for housing development are understood in some detail for the City’s Upper Harbor Terminal property, they have not been examined for the majority of the upper riverfront which is privately held land.
- The future demand and estimated price point for selling or renting new housing in the upper river have not been carefully evaluated, nor has the timing for the emergence of that demand.
- Site preparation costs and market return for new industrial development have not been evaluated.

The preceding summary offers preliminary observations related to the upper riverfront context. It documents an important shift in the policy landscape over the last decade. And it highlights the limitations of the existing research and analysis for supporting the existing upper riverfront land use guidance. This does not mean that city policy for the upper riverfront is wrong or misguided. However, it does speak to the importance of further research. More generally it supports the view that, prior to further major City commitments, this is an opportune time to shore up our understanding of the desirability and viability of existing city policy for the upper riverfront.
Chapter 9. Recommendations and Next Steps

This report is an interim product that contributes to the resolution of questions about the City’s vision for its upper riverfront—as captured in the Above the Falls plan. It begins to respond to City Council direction to review the basis for the Above the Falls land use guidance prior to taking significant additional steps to further its objectives. The goal of the research is to provide a solid basis for making a decision concerning whether the plan’s guidance is appropriate, or whether modifications are needed.

This report offers a review of the information that is currently available that bears on potential upper riverfront futures. Its most important finding was anticipated—that the existing information, while offering important perspective, is not sufficient to resolve the question and provide clear policy guidance to the City’s elected officials. Further information and analysis is needed. The recommended next step is to fill in the most important informational and analytical gaps.

At the heart of the matter, questions about the ATF vision for the upper riverfront relate to land use and development feasibility. Chapters 5 and 6 comprised a detailed review of the available information and analysis that bears on those issues. And as part of that it identifies research that can advance our understanding of various aspects of those issues. That suggested research agenda would largely utilize the following methodologies.

- Survey Research (focused on existing property and business owners)
- Best Practices Research & Literature Review
- Economic Analysis (various methodologies)
- Development Feasibility Analysis

A topical categorization of the research agenda looks similar, and is utilized in the detailed research agenda that follows. It organizes the proposed research into three task groups related to the provision of additional general context, economic analysis, and development feasibility analysis.

PROPOSED RESEARCH AGENDA

Task Group I – Upper Riverfront Area Understanding

Objective. Undertake research to fill in missing data gaps that will inform the market trends research and analysis (Task Group II).

Tasks. The principal items associated with this task group include, but are not necessarily confined to, the following:

1. Undertake a business survey of study area business to understand current operations and anticipated future needs. The survey could solicit information on items including but not limited to: nature of operations, number of employees, employee retention, area revenue, use of infrastructure, anticipated long term plans, etc.

2. Assess the infrastructure and surface transportation framework including the road, rail and river corridors. This assessment could include but not be limited to: future expansion of the I-94 corridor, future of major east-west connectors and possibility of new ramps, future of rail network, capacity of rail infrastructure to accommodate freight and transit, future of river locks and dams, economic viability of the river as a navigation corridor, etc.

3. Analyze best practices and review literature from riverfront development in other comparable cities and regions. This analysis of comparable riverfronts could look into aspects including but not limited to: riverfronts that have witnessed major land use transitions; riverfronts that have creatively retained existing land uses to some extent and accommodated some level of change; and riverfronts that have been successful in retaining their industrial heritage viably. The lessons learned from each case may inform the market trends research.
Task Group II – Market Trends Research and Economic Analysis

Objective. To evaluate a potential range of supportable development that might be realized in the upper riverfront area, given existing industrial and non-industrial uses, parks and open space objectives, infrastructure conditions, historic trends, shifts in industrial use paradigms, seeming advantages or disadvantages specific to the region, metro area, City, and specifically the upper riverfront area. Issues and questions to be explored in the market trends research and analysis include but are not limited to:

- Are there viable industrial clusters and if so, is their co-location critical?
- How is the upper riverfront positioned for residential use relative to other areas in the City including the central riverfront?
- What are the effects of the major infrastructure (road, rail and water transportation) investments in the study area? Are these investments impeding redevelopment or could this be leveraged as a catalyst for change?
- Are there expansion plans for nonresidential and industrial facilities in the upper riverfront? What have been the major obstacles associated with realizing these plans?
- Are there expansion plans for residential facilities in the upper riverfront? What have been the major obstacles associated with realizing these plans?
- What are the impacts of the new park and open space objectives on existing and anticipated residential and nonresidential development? Is there a difference?
- Are market opportunities or expansion plans constrained by infrastructure, land availability, community resistance or other specific issues?
- Is longer term employment or growth in the area associated with expansion of existing industrial uses or the creation of new, as yet unidentified, opportunities?
- Are the land configuration and site readiness costs generally matched to the market? How does this make properties suitable or unsuitable for major redevelopment?
- Are there use specializations, clusters and unique attributes that could be leveraged?
- What are the aspirations of the major landowners that have a vested interest in the upper riverfront area?
- How do other uses or activities respond to the opportunities seemingly created by the concentration of industrial uses?

Tasks. The principal items associated with this task group include, but are not necessarily confined to, the following:

1. Identify competitive or comparable concentrations of development in the study area.
2. Explore functional and economic relationships with businesses, services and facilities now in place.
3. Identify socioeconomic trends that have a bearing on preferred use scenarios that are envisioned in the study area.
4. Identify threshold levels of demand for the use scenarios based on past and reasonably foreseeable future trends within a defined time context.
5. Inventory available properties and outline where, how, and to what capacity development might occur in the study area.
6. Identify physical, social, or regulatory issues influencing possible redevelopment.
Task Group III – Redevelopment Feasibility

Objective. To outline a series of strategies that would help achieve the market potential described in the market analysis with an understanding of the cost/benefit and feasibility of each scenario. Benefits include economic, social/community, and environmental/sustainable aspects. The feasibility analysis shall consider specific set of physical conditions and requirements imposed either by the market analysis itself or by other City or community objectives yet to be established. Issues and questions to be explored in market analysis include but are not limited to:

- How has the community responded to the 2000 Above the Falls Plan and subsequent implementation efforts?
- What have been the major obstacles associated with realizing these plans?
- Is reconfiguring existing land uses and infrastructure cost-prohibitive?
- What entity is primarily responsible for supporting these or similar plans?
- Have issues associated with industrial use and housing compatibility, and related regulatory challenges, been confirmed or explored?
- Are there cooperative agreements or community partnerships in the upper riverfront area?
- Is the scale of anticipated development in keeping with the vision for the area?
- Are there programs that link the area’s workforce with the needs of major employers?
- Is additional legislation needed to achieve the plan vision for this area?
- Should the area have a special designation that provides financial or community resources? What is the nature of this designation?
- Does the community have a shared appreciation for the fiscal and economic benefits associated with development opportunities in this area?

- Is it reasonable for targeted properties to be acquired in advance and maintained for future needs?
- How are these common problems now being addressed? Are there opportunities for shared or pooled capital to direct toward these needs?
- How can the community achieve its vision and positively impact adjacent neighborhoods? Have previous agreements been honored?
- Are there other cities that have successfully achieved a riverfront vision by which the efforts here should be benchmarked?

Tasks. The principal items associated with this task group include, but are not necessarily confined to, the following:

1. Identify potential policy actions and capital investments that may be required to implement use scenarios presented in the market trends and research analysis.

2. Evaluate/project development feasibility costs for specific scenarios and sites identified in the market trends and research analysis. These costs may include but are not limited to, acquisition, restoration, remediation, permitting, sustainable improvements, transportation improvements, and other public facilities. Also, discuss the opportunity costs of what types of development would not occur along the riverfront if these scenarios are pursued.

3. Outline general public and private financing requirements and feasibility for the different development scenarios.

4. Estimate revenues and fiscal benefits to be achieved by implementing the different development scenarios.

5. Evaluate/project the magnitude of private development that could be constructed by private real estate developers that would maximize the attraction of the riverfront location, including the likely amount of public
subsidy which may be required. This could be done by soliciting input from private developers to address what they could build in terms of density, as a way of informing and confirming the market trends research and analysis. The time frame for development should be considered.

6. Put all of the above together into an analysis of the cost vs. benefit for the upper riverfront area. Attribute costs and benefits to public or private expenditures and revenues/value increases.

7. Suggest possible modifications in regulatory policies or codes, development and financing requirements, possible infrastructure upgrades or other actions needed to further outcomes.

The preceding research agenda is understood to be a draft, to be shaped by further consultation and by the expertise of the parties that will conduct the research and analysis.

NEXT STEPS
Concluding the research project is Phase 1b of the ATF Policy Review and Implementation Study. (This preliminary policy review is Phase 1a.) It will require staffing and management of research activities. It will also require an increasing effort to engage and solicit input from upper riverfront stakeholders, including community residents and property and business owners. The expected timeline for this next phase is six to nine months.