

# Duluth Urbanized Area Growth Impact Study

## EXECUTIVE SUMMARY

April 2005



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March 2005

Prepared by the



### Duluth-Superior Metropolitan Interstate Council

*Duluth and Superior urban area communities cooperating in planning and development through a joint venture of the Arrowhead Regional Development Commission and the Northwest Regional Planning Commission*



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Duluth-Superior Metropolitan Interstate Council  
St. Louis County  
City of Duluth  
Western Lake Superior Sanitary District  
City of Hermantown  
City of Proctor  
Rice Lake Township  
Canosia Township

#### ***Map Disclaimer***

*The information contained in the following maps is a compilation of data from various federal, state, county, regional, and municipal sources. Geographic information has limitations due to the scale, resolution, date and interpretation of the original source materials. Users should consult available data documentation (metadata) to determine limitations and the precision to which the data depicts distance, direction, location or other geographic characteristics. These maps and/or data are not legal survey documents to be used for describing land for the purpose of ownership or title.*

## Duluth-Superior Metropolitan Interstate Council

### Member and Staff Listing – April 2005

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Chuck Froseth, City of Duluth  
Paul Halverson, Douglas County  
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*Guiding the Future of Transportation and Planning  
for the Twin Ports Area*

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go to [www.ardc.org/library/plans/mic/DUAGIS\\_Final.pdf](http://www.ardc.org/library/plans/mic/DUAGIS_Final.pdf) .

## Introduction

### **Lake Superior Regional Water Committee**

A group of local stakeholders met in the summer of 2002 to discuss the possibility of extending water service to areas outside of Duluth. A number of concerns were discussed, such as problems with aging (or failing) residential wells and the need to provide a reliable water source to public facilities. The result of these initial stakeholder meetings was the formation of the Lake Superior Regional Water Committee.

The Lake Superior Regional Water Committee met three times between July and November 2002. The mission of the committee was to “plan, design and fund an adequate metropolitan area public water system to service the general needs of the public and support current and future economic vitality.” Initial discussions of the committee supported the idea of seeking federal and state funding to solve water issues in the area. Discussions about estimating the costs of extensions were begun.

### **Regional planning process to examine growth impacts**

As discussions continued on this topic, it became apparent that this issue was more complex than simply extending water service to outlying areas. Provision of water services is interrelated with other infrastructure and services such as sewer, gas, and roads. The underlying issue is how the growth of residential, commercial and industrial development impacts area communities. It became clear that it would be wise to determine how best to accommodate growth while ensuring taxpayer protection from the consequences of inefficient patterns of development.

This led to a consensus decision to move ahead and conduct a regional planning process with a logical, systematic approach to examine growth impacts. The *Duluth Urban Area Growth Impact Study* identifies areas that are best suited for growth and answers the questions of “where should” water lines and other infrastructure be built.

### **Study Methodology**

Background research consisted of examining demographic information and researching growth management techniques and taxpayer protection strategies. Comprehensive plans, where available for jurisdictions in the study area, were examined to get an idea how these communities currently envision the direction of their future growth and development.

Additionally, case studies were conducted for eight cities with similar populations to get an idea of how other communities are handling growth issues and providing water and wastewater services. Most of the communities were in the Upper Midwest. City administrators or public works directors were contacted and asked a series of questions.

A development suitability analysis was also conducted for this study. This analysis was a Geographic Information Systems (GIS) modeling effort incorporating a number of factors which influence what land is most suitable for certain types of development. Proximity

to roads, water, sewer, wetlands, and flood plains all have some bearing on where development is best suited to occur. With the capabilities of GIS, these multiple factors could be analyzed together. The geographic information was entered into the model and the importance of the different data layers was ranked or weighted by the study steering committee.

Policies and recommendations were created after considering all of the information collected and generated for the study. They are designed to assist all local communities to plan in a coordinated fashion for development and utility extensions.

### **Steering Committee**

A steering committee was organized for this study with city administrators and elected township officials asked to participate. The committee met throughout the planning process to assist staff in the development of the study. Their work was extremely valuable to this planning process.

#### Study Committee Members

**John Chell** – Executive Director, Arrowhead Regional Development Commission

**Jack Ezell** – Manager of Planning, Western Lake Superior Sanitary District

**John Foschi** – City Administrator, City of Proctor

**Russ Georgesen** – Township Board Supervisor, Canosia Township

**Barb Hayden** – Planning Director, St. Louis County

**Wayne Jordahl** – Township Board Supervisor, Rice Lake Township

**Kay Knight** – City Councilor, City of Hermantown

**Lynn Lander** – City Administrator, City of Hermantown

**Carmen Orman** – Township Board Supervisor, Canosia Township

**Margaret Taylor** – Township Board Supervisor, Midway Township

**Mark Winson** – City Administrator, City of Duluth

## **Demographics**

### **Population and Housing**

According to 2000 Census information, the Duluth area population has stabilized. The city saw a small increase in population in 2000, which reversed a downward population trend from the previous census counts of 1970-1990. However, the areas surrounding Duluth have grown at a much faster rate. The area from Whiteface Reservoir to Pequaywan Township on the north to Midway Township on the south, including Hermantown and Proctor, grew by over 11% from 1990 to 2000. The larger first ring townships and cities directly adjacent to the City of Duluth grew by 10-15%, with the exceptions of Proctor and Midway, which declined slightly. The second ring of townships including Gnesen, Fredenberg, and Normanna, grew by 35-55%. In nearby Carlton County, 64% of the population lives in the northeast corner of the county with many of these residents commuting to the Duluth area for work and shopping. What these population numbers show is the region is growing rapidly at its fringes while the core city has somewhat stabilized its population.

Furthermore, the number of households in the region has grown dramatically in proportion to the population. The total number of households in St. Louis and Carlton counties was 68,534 in 1950 and increased by 38 percent to 94,683 in the year 2000. In Duluth, the number of households increased from 31,299 in 1950 to 35,500 in 2000 despite the loss of 18,000 people. These numbers show that even with slow population growth, the region has added a large number of housing units, mostly outside the central city.

Population projections for the area predict the fastest growth in the second ring townships north of Duluth, with continued strong growth in the first ring cities and townships as well as in northeast Carlton County. Duluth and Two Harbors are expected to grow slowly. These projections parallel the type of growth seen from 1990 to 2000.

## Comprehensive Plans

Comprehensive plans from area jurisdictions (see list below) were compiled and reviewed to better understand how these communities have already planned for their future development. These plans include goals and concepts that address land use, public services/utilities/ infrastructure, economic development, housing/residential development, and transportation. Examined individually, they give the reader an idea of how each community intends to achieve its goals. Looking at them collectively, we can see how the individual plans may impact the region. At the time of this planning effort, the city of Duluth's Comprehensive Plan was still in progress and not available for review.

- [Normanna Township Comprehensive Plan](#)\* (2003)
- [Canosia Township Comprehensive Plan](#)\* (2002)
- [Scanlon Comprehensive Plan](#) (2002)
- [Proctor Comprehensive Plan](#) (2002)
- [Hermantown Comprehensive Plan](#) (2001)
- [Carlton County Comprehensive Plan](#) (2001)
- [Grand Lake Township Comprehensive Plan](#)\* (2000)
- [Solway Township Comprehensive Plan](#)\* (2000)
- [Two Harbors Comprehensive Plan](#) (1999)
- [Thomson Township Comprehensive Plan](#) (1999)
- [Rice Lake Township Comprehensive Plan](#)\* (1998)
- [Midway Township Comprehensive Plan](#)\* (1997)
- [Cloquet Comprehensive Plan](#) (1994)
- [Gnesen Township Comprehensive Plan](#)\* (1992)
- [Lakewood Township Comprehensive Plan](#)\* (1985)
- [Fredenberg Township Comprehensive Plan](#)\* (1984)
- [Duluth Township Comprehensive Plan](#)\* (1979)

\* *St. Louis County Planning has authority for township plans within the county. These plans are part of the St. Louis County Comprehensive Plan.*

The information from the comprehensive plans was important because it brought the visions and ideas from each jurisdiction collectively to the planning process. Future land use information from each jurisdiction was used in conjunction with the other information generated by this planning process to help identify the specific areas best suited for future development.

### **WLSSD Comprehensive Wastewater Services Master Plan Summary (2003)**

The Western Lake Superior Sanitary District (WLSSD) was created by the Minnesota Legislature as a special purpose subdivision of the state to address problems with water pollution, sewage collection, and disposal issues in the St. Louis River basin. Minnesota Statute (Chapter 458D) outlines that WLSSD is responsible for improving and protecting the waters of the St. Louis River basin and provides information on the framework by which the district is governed.

WLSSD covers 530 square miles in northeast Carlton County and southeast St. Louis County. The district encompasses nine cities and villages (Duluth, Cloquet, Carlton, Scanlon, Wrenshall, Hermantown, Proctor, Oliver and Thomson) and ten townships (Silver Brook, Thomson, Twin Lakes, Canosia, Duluth, Grand Lake, Lakewood, Midway, Rice Lake and Solway). Approximately 15% of the area is sewered with another 7% to be sewered in the next 10-20 years.

The objective of this comprehensive plan was to create a guideline that identifies current and future issues and needs, and evaluates possible solutions. The plan describes current conditions and planning goals and recommends policies and actions. Implementation of the recommendations will require cooperation from all jurisdictions in the WLSSD area.

WLSSD requires that local units of government submit their plans for the collection, treatment, and disposal of sewage for review and approval. Sewer extension requests are reviewed by WLSSD to determine consistency with land use plans. An analysis of local Comprehensive Plans found that the city of Hermantown, Canosia and Rice Lake Townships, the North Shore and other developed areas have a potential need for public sewer in select areas.

Through this planning process, WLSSD developed an urban service boundary where they will not extend sewer services beyond in the next five years.

## **Case Studies**

Case studies were compiled to compare how other areas approach growth issues and provide water and sewer service. Selected communities were chosen primarily based on size similarity to Duluth area, not economic structure or growth rates. A notable difference between the Duluth area and selected case study communities was the fact that Duluth is growing at a considerably slower pace than all other case study communities. The following communities were contacted as case studies for this report:

- Eau Claire, Wisconsin
- Eugene, Oregon
- Fargo, North Dakota
- Grand Forks, North Dakota
- La Crosse, Wisconsin
- Racine, Wisconsin
- Rochester, Minnesota
- St. Cloud, Minnesota

The following information was sought from each case study jurisdiction.

- Provision of water and sewer services
- Water and sewer extensions
- Annexation policies
- Urban growth boundary policies
- Regional cooperation
- Rate of growth

## **Summary of Case Studies**

### **Annexation and Service Provisions**

In most cases, water and sewer services were not provided beyond city or village limits without required annexation into that city or village. There were a few minor historical exceptions, however, current service provision policies generally limit service areas and require annexation. In some cases limited term service agreements were in place to provide new communities with services for a limited timeframe so that they can build their own infrastructure.

### **Development Constraints and Growth Management**

Sanitary sewer services are the major factor in constraining development. The Wisconsin DNR's Section 208 Sewer Boundary in many respects serves a growth controlling function. This boundary delineates the area that could ultimately be served by that area's regional or jurisdictional sewage treatment plant.

Other growth management techniques utilized included state mandated urban growth boundaries (Eugene) and joint area plans (St. Cloud). These techniques make use of coordinated planning and address issues such as annexation and the provision of water and sewer services.

### **Regional Growth Cooperation, Planning and Growth**

In general, the selected case study communities have not experienced a high level of regional cooperation in the past. Annexation is a contentious issue as is tax base competition for new businesses. Regional cooperation is now occurring due to local impacts from state and federal budget cuts and from new planning laws.

## Future Growth

A number of pieces of information were considered in identifying areas most suitable for future growth, including the case studies, comprehensive plan summaries, WLSSD's urban services boundary, current land use, intended future land use and current zoning. As the study committee reviewed the results of the development suitability modeling, they were able to factor in the economic, cultural, political and social issues that the model could not consider.

### Development Suitability Analysis

Several factors influence what areas are most suitable for residential, commercial and industrial/manufacturing development. Factors such as distance to utilities, infrastructure, slope, natural features, and zoning all can have a bearing on where different types of development might occur. Factors that are good for one type of development are not necessarily good for another type of development. For example, brownfields are suitable for industrial development but are not desirable for residential development. Much of the geographic data collected for this study illustrate the location of these factors. Three separate suitability models were developed for this project to better identify potential areas for future industrial, commercial and residential growth.

### Areas Most Suitable for Future Growth

#### Industrial

Areas identified as most suitable for industrial development include locations along the waterfront from Rice's Point to the Waseca industrial area in West Duluth and have existing infrastructure that is suitable for industrial or manufacturing development. Other suitable areas include the Morgan Park and Gary/New Duluth industrial areas and the Duluth International Airport. The former U.S. Steel Plant and Atlas Cement Plant offer opportunities to redevelop existing brownfields. The area surrounding the Airport is currently supporting a growing aviation industry and is suitable for additional industrial and manufacturing development. Other smaller areas suitable for industrial growth include sites in Hermantown and Proctor along Highway 2 and sites along I-35 in Proctor and Midway Township.

#### Commercial

Areas identified as most suitable for commercial development include the Central Entrance – Miller Trunk Highway corridor, downtown Duluth, Lincoln Park, West Duluth, Proctor, Lakeside/Lester Park, and Gary/New Duluth. Most of these areas are currently served by water and sewer services and are suitable for more intensive infill commercial development. Some of these areas are also suitable for mixed-use commercial and residential uses.

#### Residential

Most of the region examined is suitable for residential development. Areas currently served by water and sewer are more suitable for infill of higher density residential

development. Areas not served by water and sewer are suitable for low-density residential development.

### **Future Utility Staging**

Once specific areas were identified as suitable for future growth, the study committee reviewed information from local jurisdictions outlining where and when they would like to see water and sewer utility services expanded. All of this information, taken together, provided an outline for a future utility staging plan.

The maps on pages 9-10 show a strategy to improve water and sewer services in those areas identified as suitable for future growth, staged in five-year increments. It should be noted that these staging plans are conceptual in nature and implementation would depend on a number of factors such as the condition of the current system and the amount of funding available for upgrades and expansions.

## **Policies and Recommendations**

The policies and recommendations were developed after analyzing all of the information compiled for the study. They are intended to provide area jurisdictions with a foundation for managing future growth and improving utilities on a regional basis. The following text is a brief summary of the policies and recommendations developed during this planning process.

### **Policies**

#### **Regional Cooperation**

Regional cooperation is a key element in managing future growth and can be accomplished by encouraging communication among agencies and jurisdictions. Areas where cooperation can take place include sharing of revenues, services, facilities, and economic development. Eliminating duplicate services and facilities results in the most efficient use of taxpayer resources. Cooperation in comprehensive planning is another area that can provide communities opportunities to work together toward more efficient use of taxpayer dollars.

#### **Growth Management**

An important part of promoting efficient growth is to discourage dense urban growth beyond current utility service areas and to encourage infill development where utilities exist. WLSSD currently has a service boundary that should be acknowledged as the limit to dense urban growth. Rural development should be limited to land uses that are compatible with a rural environment and do not require extensive public facilities and services.

## **Water and Sewer Infrastructure**

Coordinating future water and sewer service planning will help affected jurisdictions with their land use decisions. Urban service boundaries should be very similar for both water and sewer services in order to control growth. Target more compact development within current utility service areas will more efficiently utilize infrastructure already in place. Alternatives to the traditional “big sewer pipe” solutions such as managed on-site sewage systems in areas beyond current sewer service areas should be investigated.

## **Transportation**

Transportation systems should be designed to enhance current neighborhoods and communities with a goal of increasing walkability, bikeability, and access to transit. Improving freight movement is important and should be considered within the transportation network. All jurisdictions should participate in long range transportation planning to ensure a balanced transportation network capable of efficiently moving people and goods.

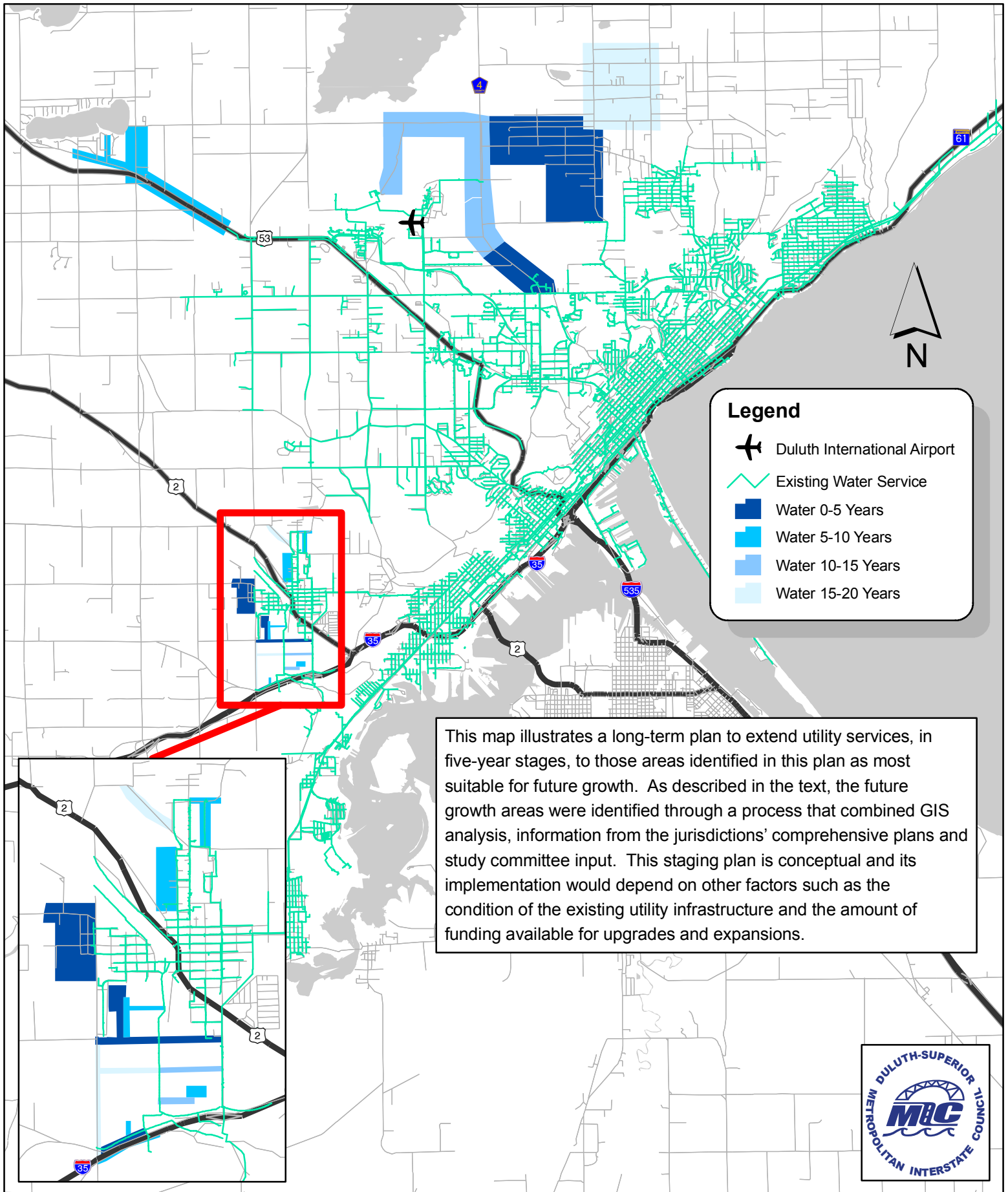
## **Recommendations**

The recommendations from this planning process were designed to help implement the policies.

- Communicate findings of this study to local stakeholders.
- Evaluate current water system to identify necessary upgrades and costs for system expansion.
- Jurisdictions that have been identified for future utility upgrades should update land use and zoning policies to reflect a more intensive land uses.
- Modify zoning and land use regulations to promote mixed-use development.
- Identify opportunities and provide incentives for infill housing.
- Communicate with other jurisdictions during comprehensive planning to identify areas of cooperation and mutual benefits.
- Identify development opportunities that can utilize alternative transportation modes such as bike, pedestrian and transit.
- Preserve areas for industrial, manufacturing and commercial uses that have highway, rail, airport and water access to take advantage of intermodal freight movement opportunities.
- Promote the benefits of managed on-site sewer systems.
- Develop a mechanism where additional tax revenues generated from the expansion of water and sewer services are shared.
- Identify areas along common borders where land resources can be pooled.
- Identify opportunities to share services where a savings to local jurisdictions and agencies will result.
- Update the information from this study in 5-10 years.

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# Water Staging Plan



# Sewer Staging Plan

