

SEWRPC Community Assistance Planning Report No. 337

SANITARY SEWER SERVICE AREA FOR THE YORKVILLE SEWER UTILITY DISTRICT NO. 1  
RACINE COUNTY, WISCONSIN

## Chapter 1

# INTRODUCTION

### 1.1 BACKGROUND

On July 12, 1979, the Southeastern Wisconsin Regional Planning Commission formally adopted an areawide water quality management plan for Southeastern Wisconsin. The plan's intent is to achieve clean and wholesome surface waters within the seven-county Region, surface waters that are "fishable and swimmable."<sup>1</sup>

The plan has five basic elements: 1) a land use element, consisting of recommendations for the location of new urban development in the Region and for the preservation of primary environmental corridors and prime agricultural lands; 2) a point source pollution abatement element, including recommendations concerning the location and extent of sanitary sewer service areas, the location, type, and capacity of, and the level of treatment to be provided at, sewage treatment facilities, the location and configuration of intercommunity trunk sewers, and the abatement of pollution from sewer system overflows and from industrial wastewater discharges; 3) a nonpoint source pollution abatement element, consisting of recommendations for the control of pollutant runoff from rural and urban lands; 4) a sludge management element, consisting of recommendations for the handling and disposal of sludges from sewage treatment facilities; and 5) recommendations for the establishment of continuing water quality monitoring efforts in the Region.

The plan was formally certified over the period July 23 to September 20, 1979, to all of the local units of government in the Region and to the concerned State and Federal agencies. The plan was formally endorsed by the Wisconsin Natural Resources Board on July 25, 1979. Such endorsement is particularly important because under State law and administrative rules, certain actions by the Wisconsin Department of Natural Resources (WDNR) must be in accordance with the adopted and endorsed plan. These actions include, among others, WDNR approval of waste discharge permits, WDNR approval of State and Federal grants for the construction of wastewater treatment and conveyance facilities, and WDNR approval of locally proposed sanitary sewer extensions.

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<sup>1</sup>The adopted areawide water quality management plan is documented in SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; Volume Two, Alternative Plans; and Volume Three, Recommended Plan.

## 1.2 NEED FOR REFINEMENT AND DETAILING OF LOCAL SANITARY SEWER SERVICE AREAS

The adopted regional water quality management plan includes recommended sanitary sewer service areas attendant to each recommended sewage treatment facility (see Map 1.1). There were in the plan, as initially adopted, a total of 85 such identified sanitary sewer service areas. The initially recommended sanitary sewer service areas were based upon the urban land use configuration identified in the Commission-adopted regional land use plan for the year 2000.<sup>2</sup> As such, the delineation of the areas was necessarily general, and may not have reflected detailed local planning considerations.

Section NR 110.08(4) and Section SPS 382.20(4) of the Wisconsin *Administrative Code* require that the Wisconsin Department of Natural Resources, with respect to public sanitary sewers, and the Wisconsin Department of Safety and Professional Services, with respect to private sanitary sewers, make a finding that all proposed sanitary sewer extensions are in conformance with adopted areawide water quality management plans, including the sanitary sewer service areas identified in such plans. In carrying out their responsibilities in this respect, these Departments require that the Southeastern Wisconsin Regional Planning Commission, as the designated areawide water quality management planning agency for Southeastern Wisconsin, review and comment on each proposed sewer extension as to its relationship to the approved plan and sewer service areas. In order to properly reflect local, as well as areawide planning concerns in the execution of this review responsibility, the Regional Planning Commission, in adopting the areawide water quality management plan, recommends that steps be taken to refine and detail each of the 85 sanitary sewer service areas delineated in the plan in cooperation with the local units of government concerned. The refinement and detailing process consists of the following seven steps:

1. Prepare a base map at an appropriate scale for each sanitary sewer service area identified in the areawide water quality management plan.
2. Delineate on that base map a sanitary sewer service area consistent with the objectives set forth in the adopted regional water quality management plan.<sup>3</sup>
3. Conduct intergovernmental meetings involving the local or areawide unit or units of government concerned. At these meetings, present and discuss the initial sanitary sewer service area delineation and solicit the positions of each of the units of government concerned.
4. Prepare modifications to the initially proposed sanitary sewer service area to reflect concerns expressed at the intergovernmental meetings. These modifications would meet, to the fullest extent practicable, the objectives expressed both in the adopted areawide water quality management and regional land use plans and in any adopted local land use and sanitary sewerage system plans.
5. Hold a public hearing jointly by the Commission and the local or areawide unit or units of government concerned to obtain public reaction to site-specific sewer service area issues that the proposed sewer service area delineation might raise.
6. Prepare a final sanitary sewer service area map and accompanying report.

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<sup>2</sup>See *SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation System Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; and Volume Two, Alternative and Recommended Plans.*

<sup>3</sup>The sewer service areas in the water quality management plan were based upon the urban land use configurations as set forth in the Commission's design year 2000 land use plan. The Commission has since completed and adopted a design year 2050 land use plan, which served as the point of departure in the delineation of the sewer service area set forth in this report.

7. The Commission would then adopt the final sewer service area map, and the Wisconsin Department of Natural Resources and the U.S. Environmental Protection Agency would certify the map, as an amendment to the adopted areawide water quality management plan. Desirably, the Commission would adopt the map following endorsement of the map by the local or areawide unit or units of government concerned. While the Commission always seeks such a consensus by the local governments concerned, it is recognized that in some cases unanimous support of the refined and detailed sanitary sewer service areas may not be achieved. In those cases, the Commission will have to weigh the positions of the parties concerned and make a final determination concerning the issues involved.

### **1.3 THE YORKVILLE SANITARY SEWER SERVICE AREA REFINEMENT PROCESS**

By letter dated December 9, 2019, the Village of Yorkville requested that the Regional Planning Commission undertake the refinement and detailing of the sanitary sewer service area tributary to the Yorkville Sewer Utility District No. 1 sewage treatment facility.<sup>4</sup> Minor amendments to the regional water quality plan to refine portions of the unrefined Yorkville sewer service area were completed in 1985 and 1990.

The refined sewer service area plan revision includes the consideration of local and county comprehensive plans; 2015 Wisconsin Wetlands Inventory; new FEMA floodplain maps; 2015 environmental corridors; and year 2015 orthophotography for the area. This community assistance planning report presents the refined sewer service area plan. The plan sets forth a proposed sanitary sewer service area for the Yorkville Sewer Utility District No. 1, identifying where sanitary sewer service may be provided. The plan also identifies environmentally significant lands within the proposed sewer service area, along with an explanation of the policies that prohibit or otherwise restrict the extension of sewers within such areas. In addition, the plan presents and evaluates alternative systems for wastewater conveyance and treatment for the Yorkville area and identifies a recommended system. It draws upon the cost-effectiveness analyses developed under alternatives prepared for the Yorkville sewer utility district.

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<sup>4</sup>This area is referred to as the "Town of Yorkville or Ives Grove" unrefined sanitary sewer service area in the regional water quality management plan and the regional land use plan.



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## **Chapter 1**

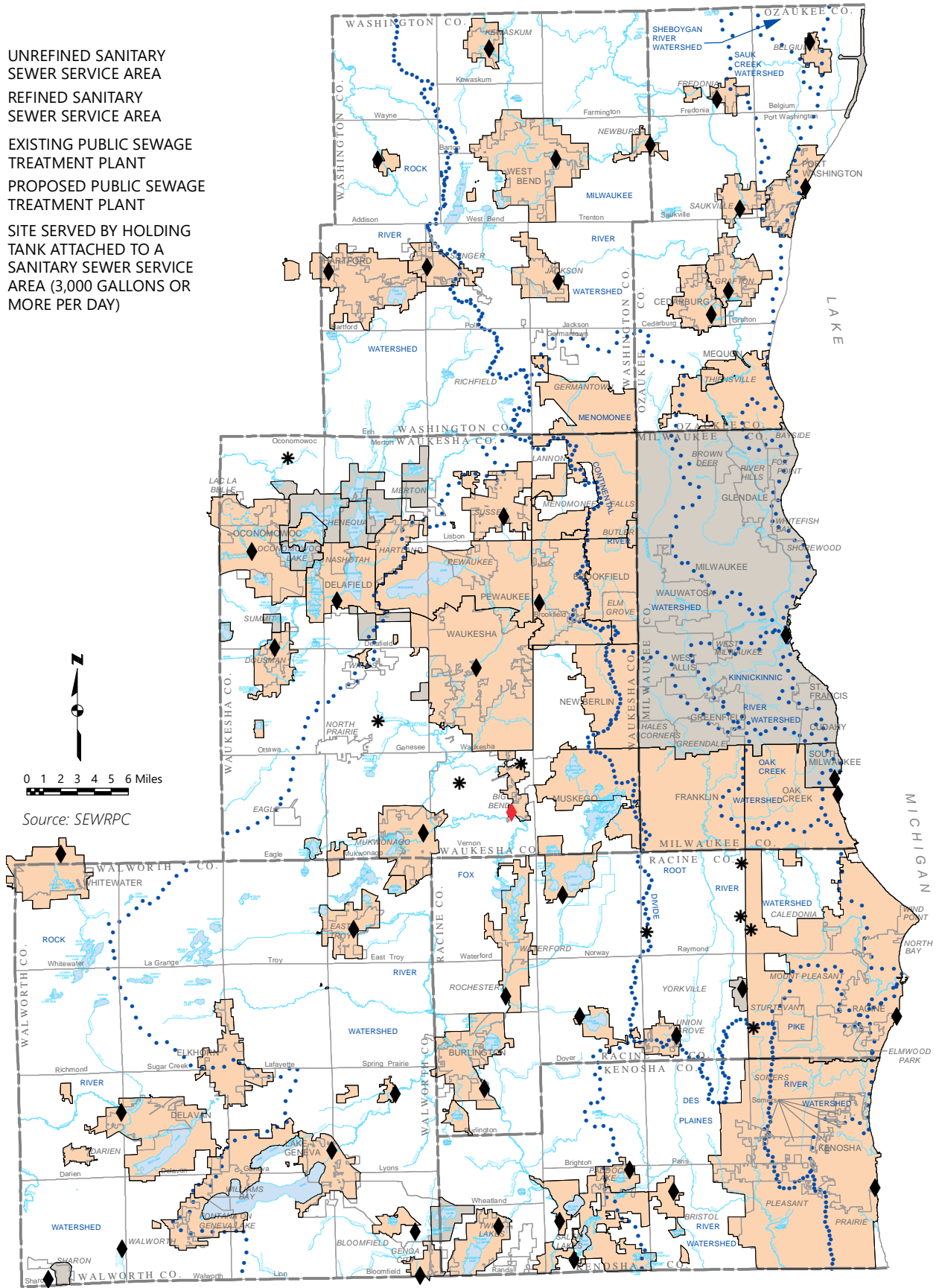
# **INTRODUCTION**

## **MAPS**



# Map 1.1 Planned Sanitary Sewer Service Areas in the Region: September 2019

- UNREFINED SANITARY SEWER SERVICE AREA
- REFINED SANITARY SEWER SERVICE AREA
- ◆ EXISTING PUBLIC SEWAGE TREATMENT PLANT
- ◆ PROPOSED PUBLIC SEWAGE TREATMENT PLANT
- \* SITE SERVED BY HOLDING TANK ATTACHED TO A SANITARY SEWER SERVICE AREA (3,000 GALLONS OR MORE PER DAY)







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## Chapter 2

# PROPOSED SANITARY SEWER SERVICE AREA

### 2.1 INTRODUCTION

A sanitary sewer service area plan is a long-range plan that serves as a guide to extending sanitary sewer service in a locality by identifying the area within which sanitary sewers may extend. Including land within a planned sewer service area enables, but does not mandate, the provision of sanitary sewer service.

A sanitary sewer service area plan also identifies environmentally significant lands within the planned sanitary sewer service area. There are certain restrictions on providing sanitary sewer service within the identified environmentally significant lands, as described later in this chapter.

### 2.2 CURRENTLY ADOPTED YORKVILLE SANITARY SEWER SERVICE AREA

The initial generalized delineation of the Yorkville sanitary sewer service area as set forth in SEWRPC Planning Report No. 30, *A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000*, considers several important factors. These factors were also an important consideration in developing the adopted regional land use plan. They included, among others, the location, type, and extent of existing urban development; the location of areas where onsite soil absorption sewage disposal systems were known to be failing; the location and extent of gravity drainage areas tributary to existing major sewerage system pumping stations or to sewage treatment plants; the location and capacity of existing and planned trunk sewers; and certain pertinent aspects of the natural resource base, including the location and extent of soils suitable for urban development, the location and extent of primary environmental corridors, and the location and extent of prime agricultural lands.

The planned year 2000 sanitary sewer service area tributary to the Yorkville sewage treatment facility as delineated under the adopted regional water quality management plan, as amended in 1985 and 1990, is shown as a blue shaded area on Map 2.1. That service area encompasses about 938 acres (1.5 square miles).

## **2.3 REFINED YORKVILLE SANITARY SEWER SERVICE AREA**

The purpose of this refinement effort is to comprehensively review the sewer service needs of lands envisioned to be tributary to the Yorkville Sewer Utility District No. 1 sewage treatment facility and to specify the sewer service area boundaries to accommodate the design year 2050 population levels envisioned for this service area. Factors taken into account in determining the refined sanitary sewer service area included the existing boundaries of the Yorkville Sewer Utility District No. 1; the Village of Yorkville comprehensive plan; and SEWRPC Planning Report No. 55, *VISION 2050: A Regional Land Use and Transportation Plan for Southeastern Wisconsin*, as updated in 2020.

Map 2.1 shows the proposed refinements/addition to the currently adopted Yorkville sanitary sewer service area identified by Village of Yorkville officials as a result of this effort.

As identified on Map 2.1, the area proposed by the Village of Yorkville adds about 356 acres to the sewer service area. With the additional acreage, the refined sewer service area encompasses a total of about 1,294 acres, including about 741 acres of existing (2015) developed land and existing street rights-of-way; about 140 acres of environmentally significant lands; and about 413 acres of agricultural and other open land.

Under the Village comprehensive plan, the developable land within the Village-proposed addition to the sewer service area would consist primarily of business park and industrial uses. The existing and planned residential areas within the entire refined sewer service area would accommodate an estimated population of about 310 people under full development conditions.

Map 2.2 shows the refined Yorkville sanitary sewer service area as proposed by the Village. Map 2.2 also shows the environmentally significant lands within the proposed expanded sewer service area. The expanded sewer service area encompasses, in total, about 1,294 acres (2.0 square miles), an increase of 356 acres (0.5 square miles), or 38 percent, over the currently approved sewer service area. The identified environmentally significant lands encompass about 140 acres, or 11 percent of the total sewer service area.

### **Population Within the Proposed Sewer Service Area**

The year 2050 regional land use plan adopted by the Regional Planning Commission in 2020 includes a future population range for each sanitary sewer service area in Southeastern Wisconsin. Under the regional land use plan, the year 2050 population of the Yorkville sewer service area would range from 380 people under an intermediate growth scenario to about 570 people under a high-growth scenario. The planned population of the Yorkville sewer service area under the 2040 stage of the regional land use plan ranges from 370 to 513 under the intermediate and high-growth scenarios. The refined Yorkville sanitary sewer service area would accommodate a population of about 310 persons, assuming full development of vacant lands within the sewer service area as envisioned under the adopted Village comprehensive plan. This population level lies below the intermediate growth end of the range of population levels envisioned under the Commission 2050 regional land use plan, and as such, is not wholly consistent with the adopted regional land use plan. However, it can be noted that this population level is consistent with the Village's comprehensive plan and is anticipated to be consistent with the population level set forth in the Yorkville Facility Plan that is currently nearing completion.

### **Environmentally Significant Lands Within the Proposed Sewer Service Area**

The environmentally significant lands shown on Map 2.2 include areas identified as secondary environmental corridors, isolated natural resource areas, and small wetlands and surface water areas less than five acres in size located outside the environmental corridors and isolated natural resource areas. The series of maps presented as Map 2.3 shows more detailed mapping of the proposed sewer service area and of the environmentally significant lands.

The Regional Planning Commission delineates environmental corridors and isolated natural resource areas as part of its continuing regional planning program. They encompass concentrations of wetlands, woodlands, wildlife habitat, surface water, and other natural resource and resource-related features. Primary environmental corridors are the largest of these, by definition being at least 400 acres in area, two miles in length, and 200 feet in width. No primary environmental corridors currently exist in the Yorkville sewer service area. Secondary environmental corridors are by definition at least 100 acres in area and one mile in length. Isolated natural resource areas are by definition at least 5 acres in area and 200 feet in width. Appendix A of this report explains the methodology used to identify these areas.

The proposed expanded sanitary sewer service area encompasses 97 acres of secondary environmental corridors (7 percent of the sewer service area); and 14 acres of isolated natural resource areas (1 percent of the sewer service area). The proposed sewer service area also encompasses a total of 29 acres of small wetlands and surface water areas located outside the environmental corridors and isolated natural resource areas, accounting for 2 percent of the sewer service area.

Map 2.2 also identifies undeveloped 100-year floodplains located outside the proposed sewer service area. During any future expansions of the sewer service area, this plan will consider such floodplains as potential additions to the adjacent environmental corridors or isolated natural resource areas. Map 2.2 identifies these floodplains in a tan color.

### ***Restrictions on Sewered Development in Environmentally Significant Areas***

The regional land use and water quality management plans recommend preserving primary environmental corridors in essentially natural, open use and recommend that County and local units of government consider protecting and preserving secondary environmental corridors and isolated natural resource areas. Consistent with regional plans, policies adhered to by the Wisconsin Department of Natural Resources and Department of Safety and Professional Services in their regulation of sanitary sewerage systems prohibit or otherwise limit the extension of sanitary sewers to serve development in such areas. The following restrictions apply:

1. This plan confines the extension of sanitary sewers to serve new development in primary environmental corridors to limited recreational and institutional uses and rural-density residential development (maximum of one dwelling unit per five acres) in areas other than wetlands, floodplains, riparian buffers, and steep slopes. As noted earlier, no primary environmental corridors currently exist within the proposed Yorkville sewer service area.
2. This plan does not permit the extension of sanitary sewers to serve development in portions of secondary environmental corridors and isolated natural resource areas comprised of wetlands, floodplains, riparian buffers, or steep slopes. Map 2.3 identifies the portions of secondary environmental corridors and isolated natural resource areas comprised of wetlands, floodplains, riparian buffers, or steep slopes within the proposed sewer service area with an orange background color.

This report recognizes that its mapping of environmentally significant areas is a representation of conditions based upon the most recent available natural resource base information. In many cases, as specific development proposals arise, a field survey will be necessary to more precisely identify the boundaries of environmental corridors and isolated natural resource areas in the vicinity of the proposed development.

## 2.4 WATER QUALITY IMPACTS

The regional water quality management plan and the Yorkville sanitary sewer service area plan presented herein envision that all new urban development within the planned sewer service area would receive sanitary sewer service. These plans intend that the restrictions on sewered urban development in environmentally significant areas, described in the previous section, will avoid significant adverse water quality impacts attendant to the extension of sanitary sewer service. In addition, the planned sanitary sewer service area may provide public sewer service to those lands that are already developed and served by private onsite wastewater sewage systems, which in turn may reduce pollutant loadings from the existing onsite wastewater treatment systems to both surface and ground waters. Assuming that any applicable Federal, State, and local permits are obtained, and that proper site development and construction practices are employed, there should be no significant adverse water quality impacts attributable to the development of the planned sewer service area.

## 2.5 COST-EFFECTIVENESS ANALYSIS OF SEWAGE CONVEYANCE AND TREATMENT ALTERNATIVES

As detailed in the sanitary sewer service area plan for the City of Racine and environs (SEWRPC Community Assistance Planning Report No. 147 (2nd Edition), *Sanitary Sewer Service Area for the City of Racine and Environs, Racine and Kenosha Counties, Wisconsin*, June 2003), it was anticipated that the entire Yorkville system would be connected to the sewerage system tributary to the City of Racine sewage treatment plant, and the Yorkville sewage treatment plant abandoned when the Yorkville plant reached the end of its useful life, pending cost-effectiveness analyses to be conducted at that time.

Three alternatives for serving the refined sewer service area were evaluated by the Village of Yorkville and its consultant as part of their facility planning process as set forth in the draft document entitled "*WWTP Facilities Plan, Yorkville Utility District No. 1, Village of Yorkville, WI*", dated June 12, 2020, prepared by Short Elliott Hendrickson Inc. (SEH).

- Alternative 1 consists of retaining and modifying the existing Yorkville plant to include construction of a new continuous flow sequencing batch reactor (SBR) plant and grit removal system. The 20-year net present worth cost of this alternative would be approximately \$7M.
- Alternative 2 consists of abandoning the existing treatment plant and connecting the Yorkville service area to the City of Racine plant, whose collection system is currently within one mile of Yorkville's refined sewer service area. Alternative 2 would have a 20-year net present worth cost of approximately \$14M.
- Alternative 3 consists of abandoning the existing treatment plant and connecting the Yorkville service area to the Village of Union Grove treatment plant, which would require construction of approximately five miles of gravity and force main pipe. Alternative 3 would have a 20-year net present worth cost of approximately \$18M.

On the basis of the foregoing analysis, Alternative 1, consisting of modifying the existing Yorkville plant to include construction of a new continuous flow sequencing batch reactor (SBR) plant and new grit removal system, is the lowest cost alternative, and as such, is the recommended alternative.

## **2.6 WASTEWATER TREATMENT PLANT CAPACITY**

Current average annual wastewater flows to the wastewater treatment plant from the Yorkville service area are approximately 0.07 million gallons per day (mgd). The new sewer service area, including developable lands within the current sewer service area, could accommodate an increase in population of about 130 people and add about 300 acres of new industrial/business park and commercial development under full development conditions. The anticipated flow to be generated as a result of this development would result in sewage flow rates ranging from about 0.18 mgd to 0.37 mgd on an average annual basis, depending on the amount of flow generated by industrial/business park and commercial development. Thus, the total average annual flow would range from about 0.25 mgd to 0.44 mgd following development of the proposed sewer service area. The current plant capacity is 0.15 mgd. Therefore, the wastewater flows to the Village plant would exceed the current plant capacity if the planned growth in the Village's sewer service area occurs, and it will be necessary for the Village of Yorkville to initiate facility planning for a plant expansion sometime in the planning period prior to the wastewater flows exceeding the plant capacity.

## **2.7 PUBLIC REACTION TO THE PLAN AMENDMENT**

*(to be written following the public hearing)*

## **2.8 REGIONAL HOUSING PLAN: JOB/HOUSING BALANCE**

Appendix B provides job/housing balance information for the Village of Yorkville developed under the SEWRPC regional housing plan. The inclusion of information from the regional housing plan in sewer service area amendment reports is based upon a regional housing plan recommendation (one of 50 recommendations made under the plan) that 1) SEWRPC provide the findings of the approximate job/housing balance analysis conducted under the regional housing plan to communities requesting an amendment of their sanitary sewer service area and 2) for those communities with a job/housing imbalance, that recommendations be provided to the community for their future consideration in addressing that imbalance. However, it is important to note that the regional housing plan does not intend that meeting the job/housing balance is to be a requirement of any individual sewer service area amendment.

## **2.9 LOCAL ACTION ON THE PLAN AMENDMENT**

*(to be written following the public hearing)*

## **2.10 CONCLUDING RECOMMENDATION**

*(to be written following the public hearing)*



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## **Chapter 2**

# **PROPOSED SANITARY SEWER SERVICE AREA**

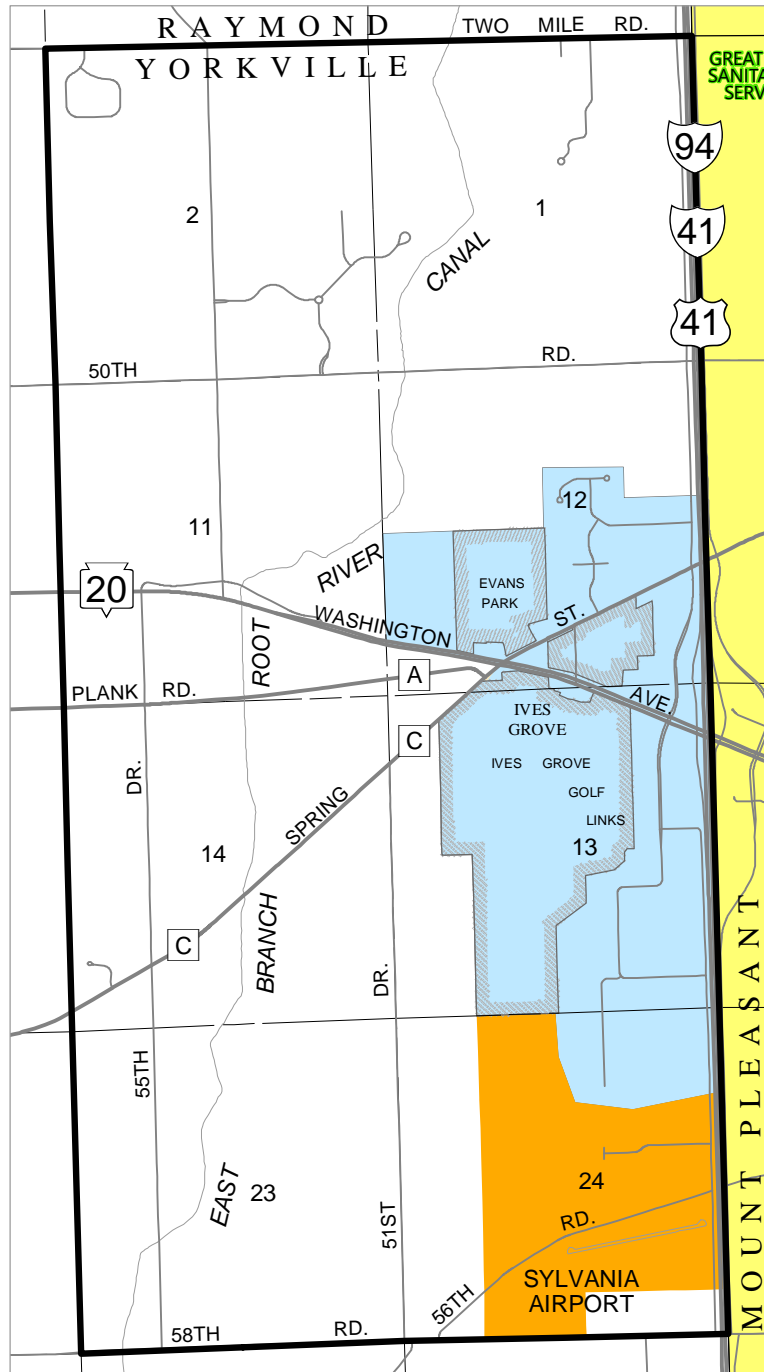
## **MAPS**



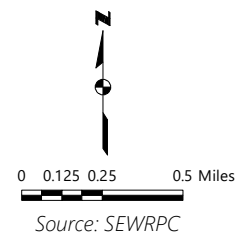


Map 2.1

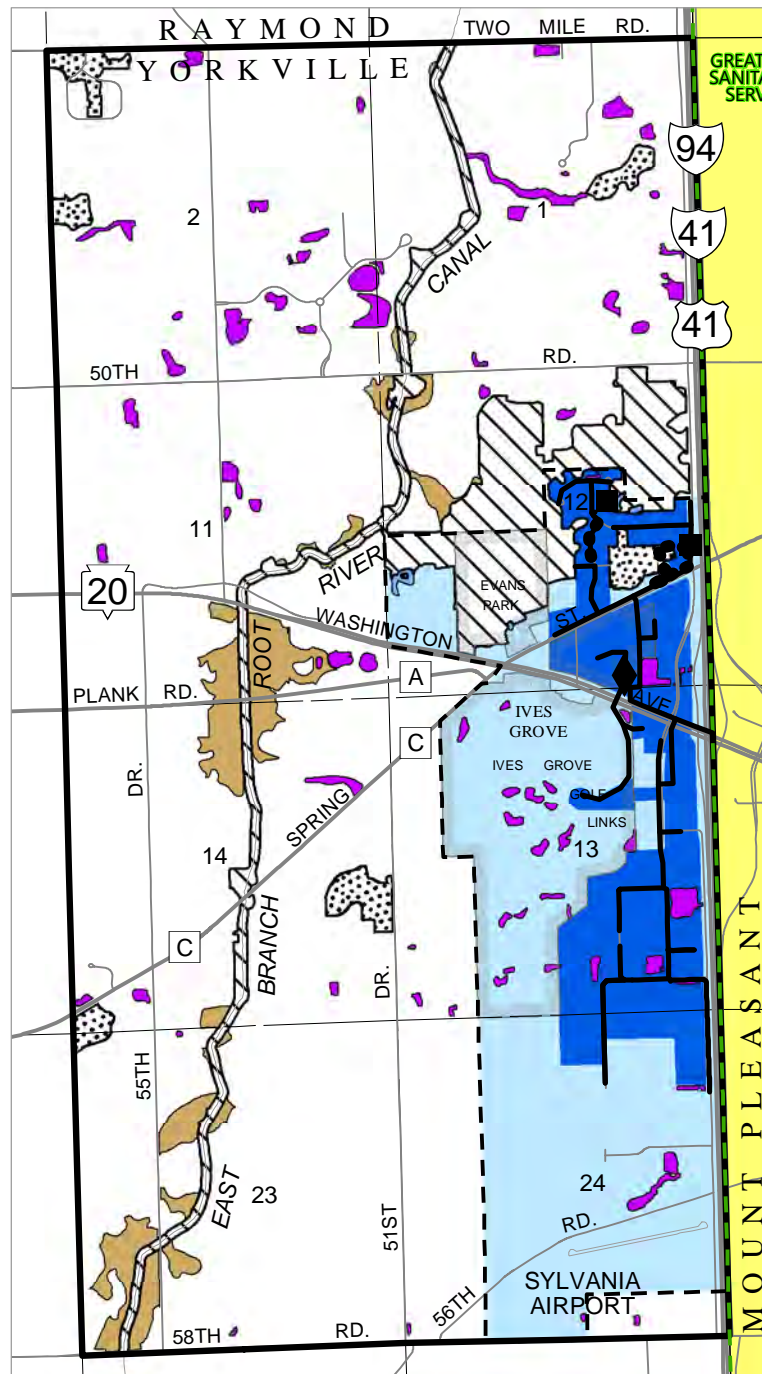
Proposed Changes to the Yorkville Sewer Utility District No. 1 Planned Sanitary Sewer Service Area









- YORKVILLE SANITARY DISTRICT PLANNED SANITARY SEWER SERVICE AREA AS DETERMINED IN THE REGIONAL WATER QUALITY MANAGEMENT PLAN ADOPTED IN 1979, AS AMENDED
- AREA PROPOSED TO BE ADDED TO THE YORKVILLE SEWER UTILITY DISTRICT NO. 1 PLANNED SANITARY SEWER SERVICE AREA
- GREATER RACINE PLANNED SANITARY SEWER SERVICE AREA









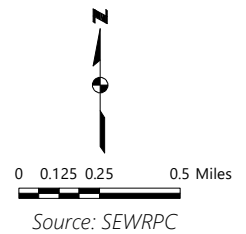
**Map 2.2**  
**Yorkville Sewer Utility District No. 1 Planned Sanitary Sewer Service Area**



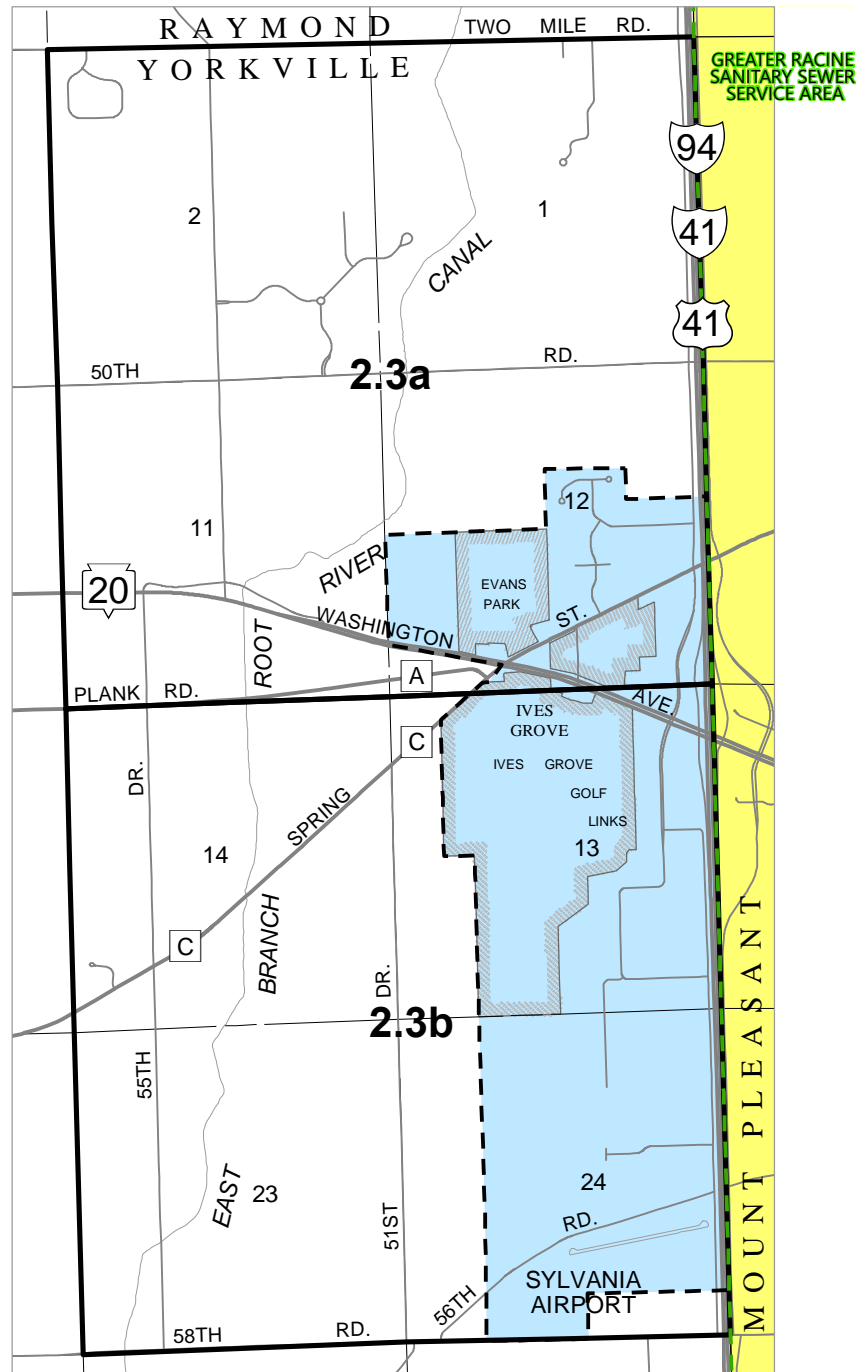
GREATER RACINE  
 SANITARY SEWER  
 SERVICE AREA

-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL RESOURCE AREA
-  WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE LOCATED OUTSIDE ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS
-  UNDEVELOPED FLOODPLAINS LOCATED OUTSIDE THE PLANNED SANITARY SEWER SERVICE AREA THAT WOULD BE ADDED TO ADJACENT ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS SHOULD THE SEWER SERVICE AREA BE EXPANDED
-  PLANNED SANITARY SEWER SERVICE AREA BOUNDARY
-  YORKVILLE SEWER UTILITY DISTRICT NO. 1 PLANNED SANITARY SEWER SERVICE AREA

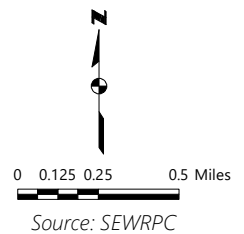
-  EXISTING AREA SERVED BY SANITARY SEWER: 2020
-  GREATER RACINE PLANNED SANITARY SEWER SERVICE AREA
-  EXISTING TRUNK SEWER
-  EXISTING FORCE MAIN
-  EXISTING LIFT STATION
-  EXISTING PUBLIC WASTEWATER TREATMENT FACILITY



**Map 2.3**  
**Index of Maps Showing Environmentally Significant Lands and Planned Sanitary Sewer Service Area for the Yorkville Sewer Utility District No. 1**

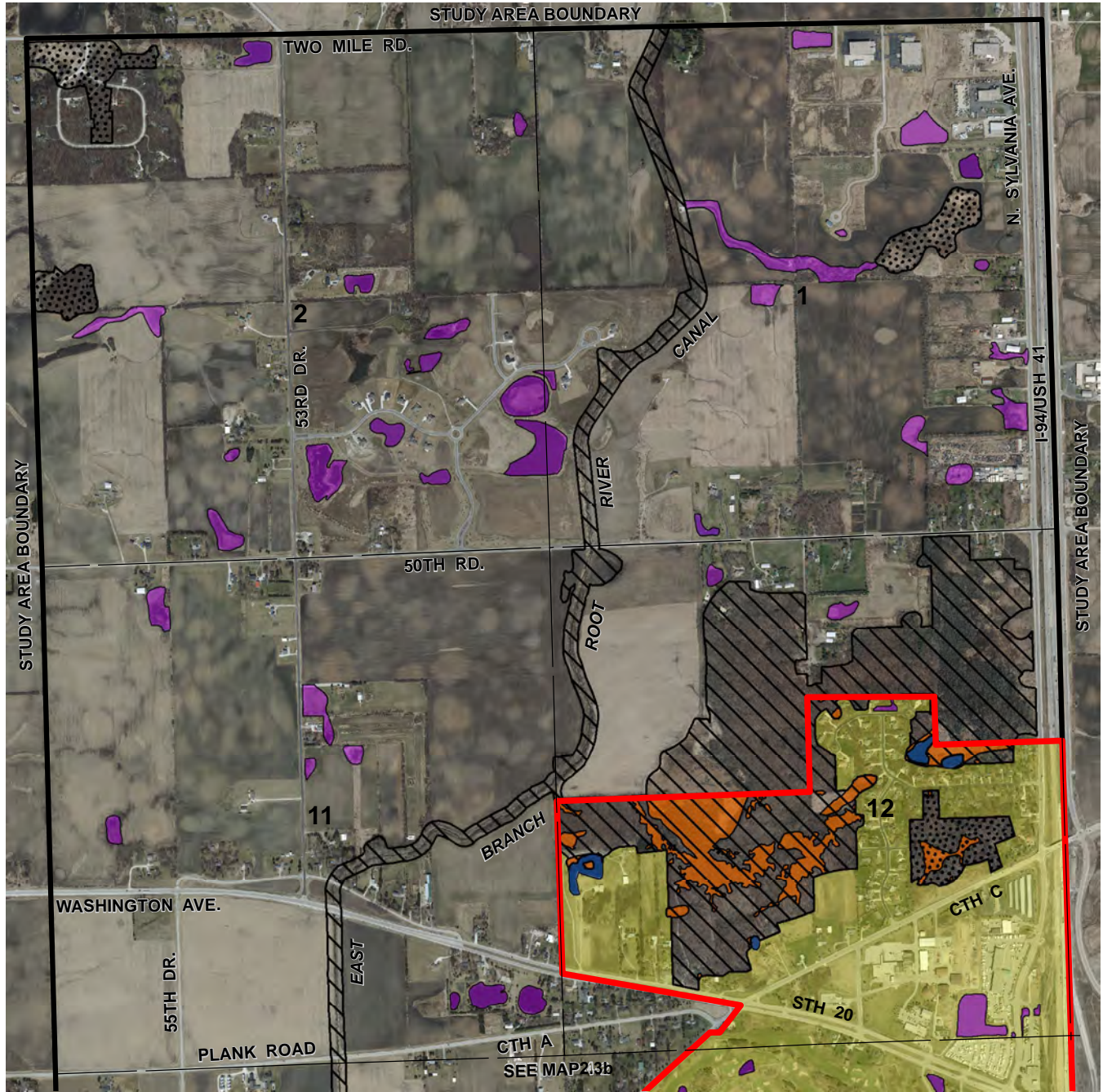









- PLANNED SANITARY SEWER SERVICE AREA BOUNDARY
- YORKVILLE SEWER UTILITY DISTRICT NO. 1 PLANNED SANITARY SEWER SERVICE AREA
- GREATER RACINE PLANNED SANITARY SEWER SERVICE AREA



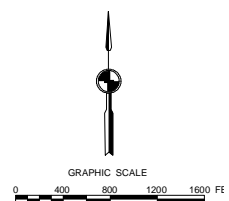
**Map 2.3a**  
**Environmentally Significant Lands and Planned Sanitary Sewer**  
**Service Area for the Yorkville Sewer Utility District No. 1**

U.S. Public Land Survey Sections 1, 2, 11, and 12  
 Township 3 North, Range 21 East



-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL RESOURCE AREA
-  WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE LOCATED OUTSIDE ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS
-  SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS
-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY
-  PLANNED SANITARY SEWER SERVICE AREA
- RESTRICTIONS ON SEWERED DEVELOPMENT**
-  PORTIONS OF SECONDARY ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS WITHIN THE PLANNED SANITARY SEWER SERVICE AREA WHICH ARE COMPRISED OF WETLANDS, FLOODPLAINS, RIPARIAN BUFFER, AND STEEP SLOPES; THE EXTENSION OF SEWERS TO SERVE NEW DEVELOPMENT IN THESE AREAS IS NOT PERMITTED.

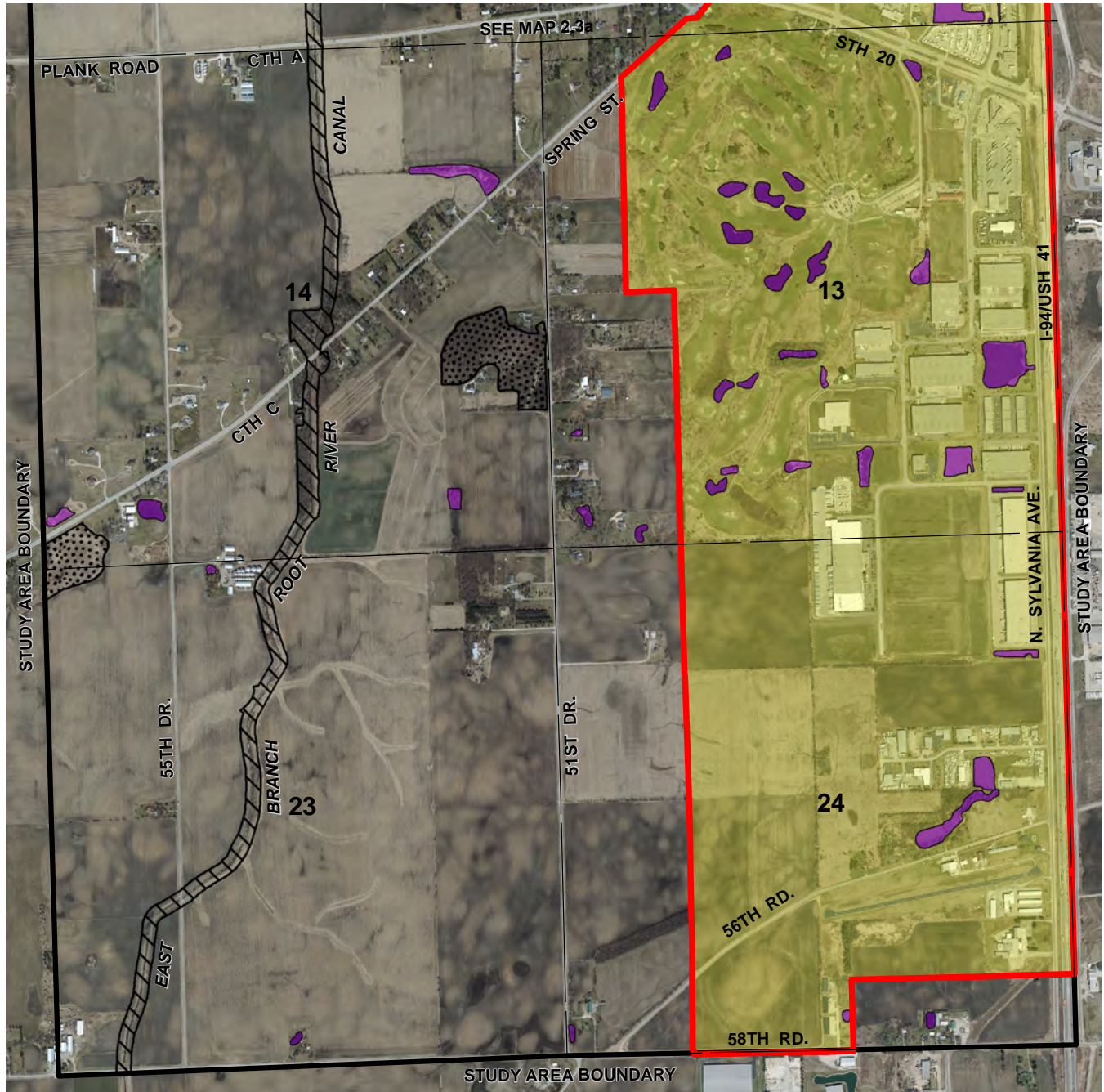
Photography Date: April 2015










Source: SEWRPC.

**Map 2.3b**  
**Environmentally Significant Lands and Planned Sanitary Sewer**  
**Service Area for the Yorkville Sewer Utility District No. 1**

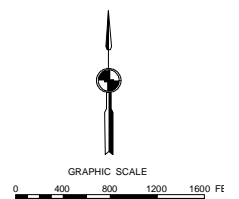
U.S. Public Land Survey Sections 13, 14, 23, and 24  
 Township 3 North, Range 21 East



-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL RESOURCE AREA
-  WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE LOCATED OUTSIDE ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS
-  SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS

-  GROSS SANITARY SEWER SERVICE AREA BOUNDARY
  -  PLANNED SANITARY SEWER SERVICE AREA
- RESTRICTIONS ON SEWERED DEVELOPMENT**
-  PORTIONS OF SECONDARY ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS WITHIN THE PLANNED SANITARY SEWER SERVICE AREA WHICH ARE COMPRISED OF WETLANDS, FLOODPLAINS, RIPARIAN BUFFER, AND STEEP SLOPES: THE EXTENSION OF SEWERS TO SERVE NEW DEVELOPMENT IN THESE AREAS IS NOT PERMITTED.

Photography Date: April 2015



Source: SEWRPC.



# APPENDICES





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SANITARY SEWER SERVICE AREA FOR THE YORKVILLE SEWER UTILITY DISTRICT NO. 1  
RACINE COUNTY, WISCONSIN

**Appendix A**

**SUMMARY OF PROCEDURES USED TO  
IDENTIFY ENVIRONMENTAL CORRIDORS  
AND ISOLATED NATURAL RESOURCE AREAS**

One of the most important tasks completed by the Commission under the regional planning program for Southeastern Wisconsin is delineating environmental corridors. Environmental corridors are linear areas in the landscape containing concentrations of natural resource and resource-related amenities. These corridors generally lie along the major stream valleys, around major lakes, and in the Kettle Moraine area of Southeastern Wisconsin. Almost all the remaining high-value wetlands, woodlands, wildlife habitat areas, major bodies of surface water, and delineated floodplains and riparian buffers are contained within these corridors. In addition, significant groundwater recharge and discharge areas, many of the most important recreational and scenic areas, and the best remaining potential park sites are located within the environmental corridors. Such corridors are, in effect, a composite of the most important individual elements of the natural resource base in Southeastern Wisconsin, and have immeasurable environmental, ecological, and recreational value.

The process of delineating environmental corridors began with the mapping of individual natural resource and resource-related elements on aerial photographs at a scale of one inch equals 400 feet. The various natural resource and resource-related elements were assigned a numeric rating intended to reflect the value of their natural characteristics. The types of natural resource and resource-related features that were mapped and the point values assigned are indicated in Table A.1.

Areas having a total point value of 10 or more based upon this mapping were identified as having "significant" natural resource value. These areas were, in turn, classified as primary environmental corridors, secondary environmental corridors, or isolated natural resource areas based upon the following criteria:

- Primary environmental corridors encompass at least 400 acres and have a minimum length of at least two miles and a minimum width of at least 200 feet
- Secondary environmental corridors encompass at least 100 acres and have a minimum length of at least one mile

- Isolated natural resource areas encompass at least five acres and have a minimum width of at least 200 feet

The resulting definitions are held out as subject to field verification where appropriate. The Commission staff is frequently called upon by county and local units of government to verify and stake in the field the boundaries of these environmentally significant lands.

Additional documentation regarding the environmental corridor delineation process is presented in an article titled "Refining the Delineation of Environmental Corridors in Southeastern Wisconsin" published in SEWRPC *Technical Record*, Volume Four, Number Two, dated 1981, which may be viewed on the Regional Planning Commission website.

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RACINE COUNTY, WISCONSIN

## **Appendix A**

# **SUMMARY OF PROCEDURES USED TO IDENTIFY ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS**

## **TABLES**



**Table A.1**  
**Values Assigned to Natural Resource Base and**  
**Resource Base-Related Elements in the Process of**  
**Delineating Environmental Corridors and Isolated**  
**Natural Resource Areas**

<b>Natural Resource Base Element</b>	
<b>Element</b>	<b>Point Value</b>
Lake	
Major (50 acres or more)	20
Minor (5-49 acres)	20
Rivers or Streams (perennial)	10
Riparian Buffer	
Lake or Perennial River or Stream	10
Intermittent Stream	5
Floodplain (100-year recurrence interval)	3
Wetland	10
Woodland	10
Wildlife Habitat	
Class I	10
Class II	7
Class III	5
Steep Slope	
20 Percent or More	7
12-19 Percent	5
Prairie	10

<b>Natural Resource Base-Related Element</b>	
<b>Element</b>	<b>Point Value</b>
Existing Park or Open Space Site	
Rural Open Space Site	5
Other Park and Open Space Site	2
Potential Park Site	
High-Value	3
Medium-Value	2
Low-Value	1
Historic Site	
Structure	1
Other Cultural	1
Archaeological	2
Scenic Viewpoint	5
Natural Area	
State Scientific Area	15
Statewide or Greater Significance	15
County or Regional Significance	10
Local Significance	5

Source: SEWRPC



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**Appendix B**

**REGIONAL HOUSING PLAN:  
JOB/HOUSING BALANCE ANALYSIS**

On March 13, 2013, the Regional Planning Commission adopted a regional housing plan for the seven-county Southeastern Wisconsin Region. That plan is documented in SEWRPC Planning Report No. 54, *A Regional Housing Plan for Southeastern Wisconsin*, dated March 2013. The plan addresses a range of housing issues and concerns, including the balance between jobs and housing throughout the Region. The plan includes a generalized analysis of the “job/housing balance” for subareas of the Region. The regional housing plan recommends providing the findings of the job-housing analysis to communities seeking to amend their sanitary sewer service areas, with the intent to inform communities of any job/housing imbalance, and to encourage them to consider addressing the imbalance when they review and update their community comprehensive plan and zoning ordinance. Accordingly, the findings of that analysis are summarized in this appendix.

The job/housing analysis conducted under the regional housing study examined the relationship between jobs and housing that would exist in areas planned by local governments to be served by a public sanitary system, assuming implementation of adopted long-range comprehensive plans for those areas. For each sewered community, the analysis compared the projected relative shares of lower-cost, moderate-cost, and higher-cost housing<sup>1</sup> with the projected relative shares of lower-wage, moderate-wage, and higher-wage jobs,<sup>2</sup> respectively. Job/housing imbalances identified under this analysis are indicated on Map B.1. A “lower-cost” job/housing imbalance indicates a community projected to have a higher percentage of lower-wage jobs than lower-cost housing. A “moderate-cost” job/housing imbalance indicates a community projected to have a higher percentage of moderate-wage jobs than moderate-cost housing.

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<sup>1</sup> For purposes of the analysis, lower-cost housing generally includes multi-family dwellings and single- and two-family dwellings at densities of 6,000 square feet or less per dwelling unit; moderate-cost housing includes single- and two-family dwellings at densities of one dwelling per 6,000 to 20,000 square feet for homes constructed prior to 2000 and at densities of one dwelling per 6,000 to 10,000 square feet for housing constructed after 2000; and higher-cost housing includes the balance of the housing stock.

<sup>2</sup> For purposes of the analysis, lower-wage jobs include those with an average annual wage that is 80 percent or less than the average annual wage for all jobs in the county; moderate-wage jobs include those with an average annual wage between 80 percent and 135 percent of average annual wage for all jobs in the county; and higher-wage jobs include those with an average annual wage that is 135 percent or more of the annual average wage for all jobs in the county.

Map B.1 shows the Village of Yorkville is projected to have lower-cost and moderate-cost job/housing imbalances. The regional housing plan would encourage the Village to consider conducting a more detailed job/housing analysis specific to their community, with the community-level analysis considering community-specific wage data and housing price data. The community-specific analysis could also consider the effect of multiple workers in a household, which was not incorporated in the regional-level analysis.

The regional housing plan further recommends that communities which are demonstrated to have a job/housing imbalance following a community-specific analysis consider making changes to their comprehensive plan and zoning ordinance, as appropriate, to enable the provision of housing suitable for the people holding jobs in their community. Actions to address a moderate-cost job/housing imbalance could include modifying the comprehensive plan to permit some single-family residences on smaller lots (1/4 acre or less) and of modest square footage (1,200 square feet). Actions to address a lower-cost job/housing imbalance could include modifying the comprehensive plan to permit some modest multifamily housing (density of at least 10 housing units per acre and 800 to 850 square feet per two bedroom apartment).

Additional information about the housing plan and the job/housing balance analysis is available on the SEWRPC website ([www.sewrpc.org/sewrpc/housing.htm](http://www.sewrpc.org/sewrpc/housing.htm)) or by contacting the SEWRPC staff.



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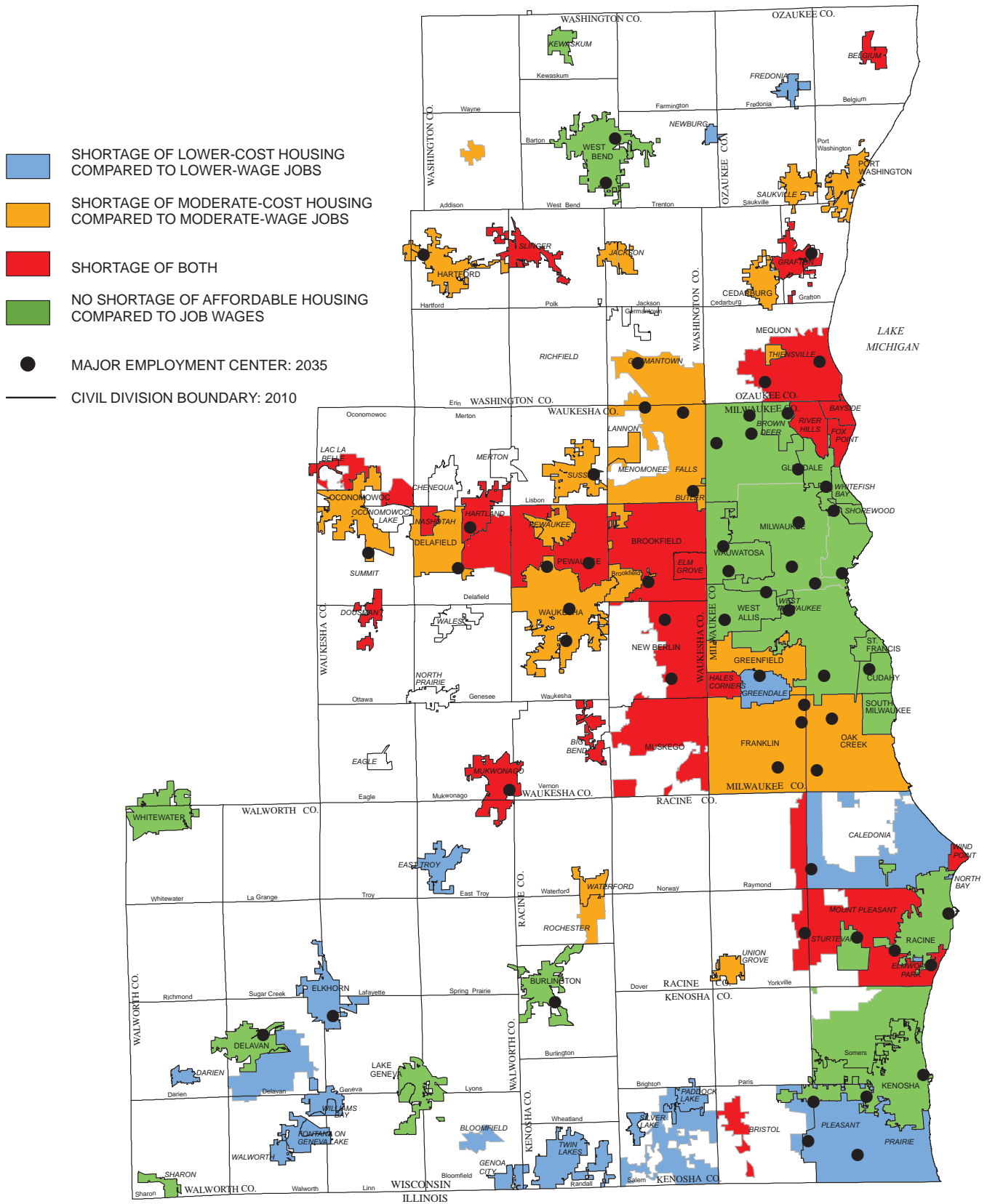
## **Appendix B**

# **REGIONAL HOUSING PLAN: JOB/HOUSING BALANCE ANALYSIS**

## **MAPS**



**Map B.1**  
**Projected Job/Housing Imbalances in Sewered Communities in the Region: 2035**



Source: Local Government Comprehensive Plans and SEWRPC.