BRAUN INTERTEC

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Alternative Urban Areawide Review Scoping Document

Northwest Growth Area Plan

Prepared for

City of Brooklyn Park

Brooklyn Park

Prepared by

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11001 Hampshire Avenue
Bloomington, MN 55438

Project B2410018
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Revised Environmental Assessment Worksheet

This Alternative Urban Areawide Review (AUAR) follows the format of an Environmental Assessment Worksheet (EAW, December 2022 version). This most recent Environmental Assessment Worksheet (EAW) form and guidance documents are available at the Environmental Quality Board's (EQB) website at: https://www.eqb.state.mn.us/ The EAW form provides information about a project that may have the potential for significant environmental effects. Guidance documents provide additional detail and links to resources for completing the EAW form.

An AUAR is an alternative to an Environmental Impact Statement (EIS) that responds to the items in the EAW form to the level of analysis similar to an EIS. Minnesota Rules Chapter 4410.3610, subp. 4 states that "the content and format [of an AUAR document] must be similar to that of an EAW but must provide for a level of analysis comparable to that of an EIS for impacts typical of urban residential, commercial warehousing, and light industrial development and associated infrastructure." The twenty-two items in the EAW form provide information about a proposed development scenario within the AUAR area, existing conditions, existing plans, potential environmental issues, and specific methodologies for special studies that will be or have been conducted for the AUAR (i.e., the scope of the Traffic Impact Study).

AUAR Guidance (September 2008) is shown in light green italics.

Cumulative potential effects can either be addressed under each applicable EAW Item or can be addressed collectively under EAW Item 21.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the EQB Monitor. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. Project Title:

Northwest Growth Area Plan

2. Proposer:

Proposer:	City of Brooklyn Park
Contact Person:	Erin McDermott
Title:	Senior Planner
Address:	5200 85th Ave. N.
City, State ZIP:	Brooklyn Park, MN 55443
Phone:	763-493-8057
E-Mail:	planning@brooklynpark.org

3. Responsible Governmental Unit (RGU):

RGU:	City of Brooklyn Park
Contact Person:	Erin McDermott
Title:	Senior Planner
Address:	5200 85th Ave. N.
City, State ZIP:	Brooklyn Park, MN 55443
Phone:	763-493-8057
E-Mail:	planning@brooklynpark.org

4. Reason for EAW Preparation (check one):

Required:		Discretionary:	
☐	Mandatory EAW	☐	Citizen's Petition
☐	Proposer Initiated	☐	RGU Discretion

If EAW or EIS is mandatory give EQB rule category subpart number(s) and name(s):
Not applicable.

5. Project Location:

County:	Hennepin
City/Township:	Brooklyn Park
PLS Location:	S6&7, T119N, R21W
Watershed:	Mississippi River – Twin Cities
GPS Coordinates:	45.1382299N, 93.3970363W
Tax Parcel Numbers:	**West of U.S. Highway 169 (North to South):** 0611921220001, 0611921210002, 0611921210001, 0611921230002, 0611921240002, 0611921320006, 0611921320001, 0611921310002, 0611921320002, 0611921320003, 0611921320004, 0611921320008, 0611921320007, 0611921330006, 0611921330007, 0611921330005, 0611921330009, 0611921330008, 0611921340012, 0611921340009, 0611921340010, 0711921220003, 0711921210003, 0711921230001, 0711921230002, MnDOT Property (610/169) **East of U.S. Highway 169 (North to South):** 0611921440003, 0611921440001, 0511921330002, 0711921120009, 0711921120005, 0711921120006, 0711921110007, 0711921110008, 0711921110003, 0711921110004, 0711921110005, 0711921110006, 0811921220001, 0811921220002, 0711921130005, 0711921140005, 0711921140002, 0711921140001, 0711921140007, 0711921140006, 0811921230002, 0811921230004

At a minimum attach each of the following to the AUAR:

i. *The county map is not needed for an AUAR.*
ii. *The USGS map should be included*

iii. Instead of a site plan, include: (1) a map clearly depicting the boundaries of the AUAR and any subdistricts used in the AUAR analysis; (2) land use and planning and zoning maps as required in conjunction with items 9 and 27 ; and (3) a cover type map as required for item 10.

iv. Additional maps may be included throughout the document wherever maps are useful for displaying relevant information.

6. Project Description:

a. Provide the brief project summary to be published in the EQB Monitor, (approximately 50 words).

The Study Area is located in Section 6 and 7, Township 119N, Range 21W in Brooklyn Park, Hennepin County, Minnesota. The proposed development scenario would include the development of the Study Area including residential, commercial, transit-oriented development, and biotechnology development including research, office, production, and manufacturing space. The development scenario would also include the construction of infrastructure including roads and utilities.

b. Give a complete description of the proposed project and related new construction, including infrastructure needs.

Instead of the information called for on the form, the description section of an AUAR should include the following elements for each major development scenario included:

1. *anticipated types and intensity (density) of residential and commercial/warehouse/light industrial development throughout the AUAR area;*
2. *infrastructure planned to serve development (roads, sewers, water, stormwater system, etc.) Roadways intended primarily to serve as adjoining land uses within an AUAR area are normally expected to be reviewed as part of an AUAR. More "arterial" types of roadways that would cross an AUAR area are an optional inclusion in the AUAR analysis; if they are included, a more intensive level of review, generally including an analysis of alternative routes, is necessary;*
3. *information about the anticipated staging of various developments, to the extent known, and of the infrastructure, and how the infrastructure staging will influence the development schedule.*

The number of acres to be graded and number of cubic yards of soil to be moved need not be given; instead, a general discussion of the likely earthmoving needs for development of the area should be given, with an emphasis on unusual or problem areas. In discussing mitigation measures, both the standard requirements of the local ordinances and any special measures that would be added for AUAR purposes should be included.

This item should first of all summarize information on physical infrastructure presented under items (such 6, 17, 18 and 21). Other major infrastructure or public services not covered under other items should be discussed as well — this includes major social services such as schools, police, fire, etc. The RGU must be careful to include project-associated infrastructure as an explicit part of the AUAR review if it is to exempt from project-specific review in the future.

The Study Area is approximately 673 acres located within the City of Brooklyn Park (Appendix A, Figure A-1), consisting of 49 Hennepin County parcels (Appendix A, Figure A-2), north of the intersection of Trunk Highway (TH) 610 and U.S.169.

Several meetings with the current property owners, citizens, the City of Brooklyn Park, and Brooklyn Park City Council (stakeholders) occurred beginning Fall of 2024. Several renditions of the development scenarios were evaluated and further refined, resulting in one final development scenario for further environmental analysis. The Vision Plan (Hereinafter referred to as "The Development Scenario") represents the full build out scenario and therefore is the "worst case scenario" for potential environmental impacts. Although the exact configuration of each building will not be determined until construction on each parcel is designed, the Draft AUAR will analyze the individual and cumulative potential effects from the largest building footprints possible and lot configurations with consideration given to existing natural resources, planning and zoning requirements, market trends, and infrastructure needs.

The Study Area would be one development scenario consisting of mixed uses including residential, commercial, transit-oriented development, and biotechnology development areas including research, office, production, and manufacturing space (Appendix A, Exhibit A-5). No specific end users have been identified for each of the parcels and land uses unless otherwise specified.

The Draft AUAR will specify a more defined development scenario in which the approximate unit and size ranges of land uses will be narrowed, and general land use locations will be specified. The overall scenario would yield approximately 3,640 - 8,540 residential units and approximately 6,400,000 - 13,800,000 square feet of building space.

Residential areas would be located within the northern portion of the Study area and would include an estimated 160-600 units of low/medium density housing (8-30 units per acre) and estimated 900-1,800 units of medium/high density housing (30-60 units per acre). Neighborhood mixed land uses would be located throughout the Study Area and would consist of an estimated 720-1,440 units (30-60 units per acre) along with 400,000-1,200,000 square feet of commercial space.

Transit-oriented development would consist of housing and commercial development surrounding the proposed Light Rail Transit Station within the southeastern portion of the Site. The land use is estimated to be 720-1,620 residential units (40-90 units per acre) and 1,700,000-2,500,000 square feet of commercial space. In addition to the transit-oriented development, the Operations and Maintenance Facility (OMF) for the proposed MERTO Blue Line Light Rail Transit Extension is proposed within the northeastern corner of the Study Area. This portion of the Study Area is also included within the sperate and independent environmental review of the Blue Line Extension project.

Biotechnology centered development would be located in the southern half and northern portion of the Study Area. The planned development would consist of two categories, Innovation Mixed Use, Production and Manufacturing. Innovation Mixed Use would be split between East and West. Innovation Mixed Use areas combined would consist of 800-2,400 units (20-60 units per acre) and approximately 2,800,000-7,000,000 square feet of non-residential space. Production and manufacturing would consist of 340-680 units (20-40 units per acre) and approximately 1,500,000-3,000,000 square feet of non-residential space.

Additional public services would be included as needed. The expected services needed would be an elementary school and a water tower (in progress as of 2025).

Rush Creek Regional Trail and surrounding park lands would remain intact and undisturbed through the center of the Study Area. Approximately 65 acres of new park/open space would also be incorporated throughout development scenario. Additional land uses such as public/institutional may be incorporated into the proposed development scenario as well.

i. infrastructure planned to serve development (roads, sewers, water, stormwater system, etc.) Roadways intended primarily to serve as adjoining land uses within an AUAR area are normally expected to be reviewed as part of an AUAR. More "arterial" types of roadways that would cross an AUAR area are an optional inclusion in the AUAR analysis; if they are included, a more intensive level of review, generally including an analysis of alternative routes, is necessary;

The locations of the infrastructure will be specified within the proposed development scenario in the Draft AUAR. The proposed development scenario would construct additional infrastructure including the construction of new interior city roads along with the extension of existing utilities including water, stormwater sewer, a regional stormwater system, and sanitary sewer systems into the Study Area. New city interior roads would tie into the existing exterior road intersections. Utility mains would mostly follow the main road alignments and extend (through private service lines) to the constructed buildings.

ii. information about the anticipated staging of various developments, to the extent known, and of the infrastructure, and how the infrastructure staging will influence the development schedule.

Anticipated stages and timing of the construction of the proposed development scenario will be described in the Draft AUAR and in future AUAR updates as development occurs.

c. Project magnitude:

Table 6-1. Project Magnitude

Description	Number
Total Project Acreage	673
Linear project length	N/A
Number and type of residential units	3,640 - 8,540 units*
Residential building area (in square feet)	TBD
Commercial building area (in square feet)	2,100,000 - 3,700,000*
Industrial building area (in square feet)	4,300,000 - 10,000,000*
Institutional building area (in square feet)	TBD
Other uses (acres)- New Public Park/Green Space	65
Structure height(s)	TBD

*The number of units and square footage of land use types will be further defined in the Draft AUAR.

d. *Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.*

The purpose of the AUAR is to plan the development of the only large-scale undeveloped area of the City of Brooklyn Park (City of Brooklyn Park, n.d.). The goals of the development are to attract investment from employers and retailers, engage with the community, bridge the economic gap by providing employment and ownership opportunities for residences, provide sustainable infrastructure, create connections for pedestrians, bikes, and transit, and provide an increased tax base for the City of Brooklyn Park.

e. *Are future stages of this development including development on any other property planned or likely to happen?* ☒ Yes ☐ No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

The Blue Line Extension project is located along the eastern edge of the Study Area along with the OMF within the Study Area. The Light Rail line and the associated OMF are in the process of being evaluated with a Supplemental Environmental Impact Statement (SEIS) by Metropolitan Council. The Light Rail line and OMF will not be evaluated as part of the AUAR.

f. *Is this project a subsequent stage of an earlier project?* ☐ Yes ☒ No

If yes, briefly describe the past development, timeline and any past environmental review.

7. Climate Adaptation and Resilience:

a. *Describe the climate trends in the general location of the project (see guidance: Climate Adaptation and Resilience) and how climate change is anticipated to affect that location during the life of the project.*

<u>AUAR Scope</u>
The AUAR will describe trends in temperature, urban heat island, precipitation, flood risk, and cooling degree days will impact the proposed uses in the Study Area. The text in italics in the project impacts column of Table 7-1 includes examples of the project impacts that will be included within the Draft AUAR.

Table 7-1. Summary of Report Climate Trends

State of Minnesota historic climate trends (data-driven) and projected climate changes (model-driven)	County/local trends	Project impacts (climate effects on project location)
Average annual temperature increasing	Over the time period of 1895 to 2024, the daily average temperature raised an average of 0.24˚F per decade (Minnesota Pollution Control Agency, n.d.). The mean temperature over this time period was 43.76˚F, with the mean temperature from 2010 to 2024 increased to 44.74˚F (Appendix E, Exhibit E-1a) (Minnesota Pollution Control Agency, n.d.).	*e.g., Site may be subject to increased air conditioning loads to grid, interior and exterior infrastructure.*
Average precipitation increasing	Over the time period of 1895 to 2024, the average yearly precipitation increased from 22.86 inches per year to 30.8 inches per year. Precipitation rates have increased 0.23 inches per decade over this time period (Appendix E, Exhibit E-1b) (Minnesota Pollution Control Agency, n.d.).	*e.g., Increased run-off and erosion may affect soil/site stability.*
Cold weather warning	Minimum temperatures, calculated by taking the average of the daily minimum temperatures yearly, for the time period of 1895 to 2024, increased from 30.37˚F in 1895 to 38.12˚F in 2024. The minimum temperature increased 0.36˚F per decade (Appendix E, Exhibit E-1b) (Minnesota Pollution Control Agency, n.d.).	*e.g., Decreased snow cover may affect vegetation cover that leads to increased soil erosion.*
Heavier, more damaging rains	Annual days with daily precipitation exceeding one inch within the current time period (2015-2044) is increasing from 0.4-0.7 days (to 3.9-4.2 day per year) when compared to precipitation from modeled history (1976-2005) (U.S. Global Change Research Program, 2023). Days each year that will exceed the 99th percentile of precipitation will increase within the current time period (2015-2044) by 0.6-1.0 days (to 5.7-6.1 days) when compared to modeled history (1976-2005 (Appendix E, Exhibit E-1d)) (U.S. Global Change Research Program, 2023).	*e.g., Vegetation changes, stressors, more exposed soils in winter.*
Increasing heat waves	Heat waves including days with extreme temperatures are projected to increase in future timeframes. In the mid-century (2035-2064), days with a maximum temperature of 95˚F and above is expected to increase from 10.3-16.2 days to 11.9-17.9 days when compared to modeled history (1976-2005) (U.S. Global Change Research Program, 2023). Days with a maximum temperature of 100˚F or above will increase from 2.4-4.7 days, to 2.5-4.8 days a year when compared to the modeled history (1976-2005)(Appendix E, Exhibit E-1c) (U.S. Global Change Research Program, 2023)	*e.g., Construction materials may break down quicker in high heat conditions.*

State of Minnesota historic climate trends (data-driven) and projected climate changes (model-driven)	County/local trends	Project impacts (climate effects on project location)
Increasing risks of drought	The risk of droughts is expected to increase due to the mismatch between rising temperatures and the slight increase in precipitation. The average annual total precipitation is expected to increase from approximately 30 inches in 1976-2005 to as high as 33 inches in 2070-2099 (Minnesota Department of Natural Resources, n.d.). Whereas annual days with a maximum temperature above 90°F are expected to increase from 8 days in 1976-2005 to as many as 71 days by 2070-2099 (Appendix E, Exhibit E-1e) (U.S. Global Change Research Program, 2023). The approximate 7-10% increase in precipitation would not compensate for the evaporation caused by the approximate 212.5-787.5% increase in days above 90°F which could lead to the increase of drought (U.S. Global Change Research Program, 2023).	
Optional: Additional relevant climate variables	Over the time period of 1895 to 2024, the daily average temperature raised an average of 0.24˚F per decade (Minnesota Pollution Control Agency, n.d.). The mean temperature over this time period was 43.76˚F, with the mean temperature from 2010 to 2024 increased to 44.74˚F (Appendix E, Exhibit E-1a) (Minnesota Pollution Control Agency, n.d.).	*e.g., Site may be subject to increased air conditioning loads to grid, interior and exterior infrastructure.*

Table 7-2. Climate Trends and Projections Resource Tools

	Climate Trend Tools	Tools Used in the EAW	How the Tool was Used
Current Trends	Minnesota Climate Trends	Minnesota Climate Explorer: (Minnesota Department of Natural Resources, n.d.)	▪ Average annual temperature increasing ▪ Average precipitation increasing ▪ Cold weather warning
Projected Changes	Minnesota Climate Trends	The Climate Explorer: (Minnesota Department of Natural Resources, n.d.)	▪ Increasing heat waves
		CMRA: Climate Mapping for Resilience and Adaptation: (U.S. Global Change Research Program, 2023)	▪ Increasing risks of drought
Climate Hazard Projections	Climate Mapping for Resilience and Adaptation (CMRA) Assessment Climate Resilience Evaluation and Awareness Tool (CREAT)		

	Climate Trend Tools	Tools Used in the EAW	How the Tool was Used
Additional Information	National Climate Assessment (NCA4) The Intergovernmental Panel on Climate Change (IPCC) Interactive Atlas National Oceanic and Atmospheric Administration Climate		

b. *For each Resource Category in the table below: Describe how the project's proposed activities and how the project's design will interact with those climate trends. Describe proposed adaptations to address the project effects identified.*

AUAR Scoping

The AUAR will evaluate the interactions between climate trends, the effects of the trends, and project components. The AUAR will also identify adaptation strategies to mitigate the environmental effects of project components on the environment. The text in italics in Table 7-3 includes examples of the project impacts that will be included within the AUAR.

Table 7-3. Interaction of Proposed Activities with Each Climate Trend and Projection Listed in 7a

Resource Category	Climate Trends and Climate Projections	Project Components	Environmental Effects • Identify climate change risks & vulnerabilities. • Identify long-term impacts that climate conditions pose to proposed activities.	Adaptation Strategies (with applicable timeframe – construction to end of expected lifespan)
Project design	Average annual temperature increasing	*Example: Increased impervious surfaces.*	*Example: Environmental impact not foreseen with interaction between impervious surfaces and average temperature increasing.*	
		Example: Increased constructed surfaces, such as dark roofing and asphalt.	*Example: Infrastructure more vulnerable to damage and deterioration from elevated temperatures.*	
		Example: Increased traffic on Township Road 7 and County Road 24	*Example: Increased degradation of blacktop may occur with increased temperature, especially with a milder winter.*	

Resource Category	Climate Trends and Climate Projections	Project Components	Environmental Effects • Identify climate change risks & vulnerabilities. • Identify long-term impacts that climate conditions pose to proposed activities.	Adaptation Strategies (with applicable timeframe – construction to end of expected lifespan)
	Average annual precipitation increasing			
	Cold weather warming			
	Heavier more damaging rains			
	Increasing risk of heatwaves			
	Increasing risk of drought			
Land Use	Address in item 10	Address in item 10	Address in item 10	Address in item 10
Water Resources	Address in item 12	Address in item 12	Address in item 12	Address in item 12
Contamination/ Hazardous Materials/ Wastes	Address in item 13	Address in item 13	Address in item 13	Address in item 13
Fish, wildlife, plant communities, and sensitive ecological resources (rare features)	Address in item 14	Address in item 14	Address in item 14	Address in item 14

8. Cover Types

Estimate the acreage of the site with each of the following cover types before and after development:
The following information should be provided instead:

a. cover type map, at least at the scale of a USGS topographic map, depicting:

- *wetlands – identified by type (Circular 39)*
- *watercourses – rivers, streams, creeks, ditches lakes*

- *identify public waters status and shoreland management classification*
- *woodlands – breakdown by classes where possible*
- *grassland – identify native and old field*
- *cropland*
- *current development*

b. an "overlay" map showing anticipated development in relation to the cover types; this map should also depict any "protection areas," existing or proposed, that will preserve sensitive cover types. Separate maps for each major development scenario should generally be provided.

The existing land cover type was determined using 'Twin Cities Metropolitan Area 1-Meter Land Cover Classification (Impervious Surface Focused)' (Host, Rampi, & Knight, 2016). The map of existing land cover can be found in Figure B-1.

AUAR Scope

The AUAR will identify proposed land cover types, green infrastructure, and tree cover for the development scenario within Table 8-1, Table 8-2, and Table 8-3. Development district overlay and protection areas will be included in relation to the proposed land cover map (Appendix B, Figure B-2).

Table 8-1. Land Cover Types (Existing and Proposed)

Cover Types	Before (acres)	After (acres)
Wetlands and shallow lakes (<2 meters deep)	59	TBD
Deep lakes (>2 meters deep)	1	TBD
Wooded/forest	77	TBD
Rivers/streams	0	TBD
Brush/Grassland	233	TBD
Cropland	254	0
Livestock rangeland/pastureland	0	0
Lawn/landscaping	0	TBD
Green infrastructure TOTAL (from table below*)	0	TBD
Impervious surface	49	TBD
Stormwater Pond (wet sedimentation basin)	0	TBD
Other (describe)	0	TBD
Total	**673**	**673**

Table 8-2. Green Infrastructure

Green Infrastructure*	Before (acreage	After (acreage)
Constructed infiltration systems (infiltration basins/infiltration trenches/rainwater gardens/bioretention areas without underdrains/swales with impermeable check dams)	0	TBD
Constructed tree trenches and tree boxes	0	0
Constructed wetlands	0	0

Green Infrastructure*	Before (acreage	After (acreage)
Constructed green roofs	0	0
Constructed permeable pavements	0	0
Other (describe)	0	0
Total*	**0**	**To Be Determined***

*Each individual development would include green infrastructure best management practices and stormwater treatment basins, if applicable. Type and size will be determined at final design and permitting.

Table 8-3. Tree Cover

Trees	Percent	Number
Percent tree canopy removed or number of mature trees removed during development	TBD	TBD
Number of new trees planted	TBD	TBD

*To be determined based on final plans and conformance to City of Brooklyn Park's tree preservation requirements.

9. Permits and approvals required:

List all known local, state and federal permits, approvals, certifications and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.

A listing of major approvals (including any comprehensive plan amendments and zoning amendments) and public financial assistance and infrastructure likely to be required by the anticipated types of development projects should be given for each major development scenario. This list will help orient reviewers to framework that will protect environmental resources. The list can also serve as a starting point for the development of the implementation aspects of the mitigation plan to be developed as part of the AUAR.

Table 9-1. Permits and Approvals

Unit of Government	Type of Application	Status
Federal		
U.S. Fish and Wildlife Service	Section 7 Endangered Species Act Consultation	To be completed by individual developers, if necessary
U.S. Environmental Protection Agency (EPA)	Spill Prevention Control and Countermeasure Plan	To be applied for by end users, if necessary
U.S. Army Corps of Engineers	Section 404 of Clean Water Act	To be completed by individual developers, if necessary
State		

Unit of Government	Type of Application	Status
Minnesota Pollution Control Agency (MPCA)	National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit	To be completed by individual developers, if necessary
	Sanitary Sewer Extension Permit	To be completed by individual developers, if necessary
	Air Emission Facility Permit	To be applied for by end users, if necessary
	Section 401 Certification	To be completed by individual developers, if necessary
	Underground Storage Tank Registration	To be applied for by end users, if necessary
	National Pollutant Discharge Elimination System (NPDES) Industrial Stormwater General Permit	To be applied for by end users, if necessary
MN Department of Health (MDH)	Water Main Extension Permit	To be completed by individual developers, if necessary
	Notification for Permit for Well Sealing	To be completed by individual developers, if necessary
MN Department of Natural Resources (DNR)	Temporary Water Appropriations Permit for Construction Dewatering	To be completed by individual developers, if necessary
	Work within Bed of Public Waters	To be completed by individual developers, if necessary
Minnesota Department of Transportation (MnDOT)	Right-of Way Work Within or Affecting MNDOT Right-of-Way	To be completed by individual developers, if necessary
	Utility Crossing	To be completed by individual developers, if necessary
Local		
City of Brooklyn Park	AUAR Decision	To be completed by City
	Comprehensive Plan Update	To be completed by City
	Rezoning	To be completed by City
	Planned Unit Development Approval	To be completed by City
	Conditional Use Permit	To be applied for, if necessary
	Preliminary and Final Plat	To be applied for, if necessary
	Building Permit	To be completed by individual developers, if necessary

Unit of Government	Type of Application	Status
	Site Plan Review	To be completed by individual developers, if necessary
	Commercial Development Permit	To be completed by individual developers, if necessary
	Sewer Connection Permits	To be completed by individual developers, if necessary
	Utility Permits	To be completed by individual developers, if necessary
	Excavation and Grading Permits	To be completed by individual developers, if necessary
	Water Connection Permits	To be completed by individual developers, if necessary
	Sign Permits	To be completed by individual developers, if necessary
	Right of Way Permit	To be completed by individual developers, if necessary
	Erosion Control, Grading, and Stormwater Permit	To be completed by individual developers, if necessary
West Mississippi Watershed Management Commission	Wetland Alteration Permit	To be applied for, if necessary
	Stormwater Management Plan Review	To be applied for, if necessary

Cumulative potential effects may be considered and addressed in response to individual EAW Item Nos. 10-20, or the RGU can address all cumulative potential effects in response to EAW Item No.22. If addressing cumulative effect under individual items, make sure to include information requested in EAW Item No. 21.

10. Land use:

a. *Describe:*

i. *Existing land use of the site as well as areas adjacent to and near the site, including parks and open space, cemeteries, trails, prime or unique farmlands.*

Prime or unique farmlands. The extent of conversion of existing farmlands anticipated in the AUAR should be described. If any farmland will be preserved by special protection programs, this should be discussed.
Designated parks, recreation areas, or trails. If development of the AUAR will interfere or change the use of any existing such resource, this should be described in the AUAR. The RGU may also want to discuss under this item any proposed parks, recreation areas, or trails to be developed in conjunction with development of the AUAR area.

The existing land use within the Study Area is composed of agricultural land and associated buildings, residences, institutional uses, and undeveloped land. Three Rivers Parks-Rush Creek Regional Trail runs from east to west within the center of the Study Area, north of 101st Ave N (Appendix B, Figure B-4). The majority of the areas surrounding the trail consist of park land (North Hennepin Regional Trail). Farmlands of statewide importance, prime farmland, prime farmland if drained are present within the Study Area (Appendix C, Figure C-1). No additional parks, trails, or cemeteries are located within the Study Area.

The surrounding land uses of the Study Area consist of the following:

- East: Commercial, Light Industrial, Corporate Campus, residential beyond
- South: Highway 610, Light industrial and institutional beyond
- North: Light industrial and residential with residential and commercial beyond
- West: Residential with Elm Creek Regional Park beyond

AUAR Scoping
The Draft AUAR will evaluate the changes in the use of existing parks and the development of new public city parks within the Study Area.

ii. Plans. Describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.

Brooklyn Park 2040 Comprehensive Plan

The following goals were outlined within the Community Goals within the City's Comprehensive Plan applicable to the proposed development within the Study Area (City of Brooklyn Center, 2019).

- A balanced economic environment that empowers business and people to thrive.
  - Our business environment inspires private investment and job growth.
  - Business and organizations of all types, sizes, and specialties start, stay, and grow here.
- Beautiful spaces and quality infrastructure make Brooklyn Park a unique destination.
  - Attractive key corridors, corners and city centers create destinations that meet community needs.

The Comprehensive Plan outlines the existing and future land uses and their locations for growth, development, and improvements including the following within or adjacent to the Study Area:

- "T.H. 610 plays a significant role in Brooklyn Park's development today and will continue into the future. Increased access, housing construction, and employment opportunities all benefit from T.H. 610. Brooklyn Park is in an enviable position to take advantage of the growth generated by T.H.610."
- "TH 169/101st Avenue Interchange. This project is in the City's CIP and the STIP for a 2020/2021 construction. It will include a full land access interchange (folded diamond to the north) with auxiliary lanes along TH 169 between TH 610 and the proposed interchange. The project will also improve 101st Avenue to a four-lane divided facility (west of the west ramp terminal to Xylon Avenue) and a three lane urban facility from west of the west ramp terminal to Jefferson Highway. There would be multi-purpose trails along both sides of 101st Avenue and the south side of the interchange bridge."
- "Xylon Avenue / 97th Avenue Extension to TH 610/West Broadway Int. This segment is currently planned as a 3-lane urban major collector type facility with trails on both sides. It would connect the Oak Grove Parkway / Xylon Avenue intersection with the West Broadway / TH 610 Westbound Ramps intersection. This connection has been analyzed and approved by MnDOT and all other public agencies as part of the BLRT Project. The timing of the connection would be development driven and paid for by the adjacent development."
- "Decatur Drive / 98th Avenue. The segment of Decatur Drive and 98th Avenue between Jefferson Highway and 101st Avenue is expected to be constructed to a 3-lane urban collector facility with trails on both sides coincident to the development of this area and would be funded by the development. The intersection with 101st Avenue may align with the southbound ramps of the TH 169 / 101st Avenue interchange."

'Building to 2030', a special area study complementing the Comprehensive Plan, outlines development principles for the TH 610 corridor. The following principles relate to the proposed development within the Study Area.

1. Attention to Nature and Recreation
    a. Plan for passive and active green spaces around activity areas and residential neighborhoods.
    b. Create a more desirable and amenity rich environment with quality landscape design and maintenance because integrated green spaces are a valuable asset to the community.
2. Jobs! Jobs! Jobs!
    a. Consider providing assistance only to developments that promise a return on the City's investment: high use, high employment, high skill and/or high tech.
    b. Streamline and simplify the approval process for businesses and development that meet our vision; be fast, flexible, and friendly.
    c. Continue emphasis on attracting precision manufacturing, biomedical, corporate, and other high-tech industries along the Highway 610 corridor.

d. Expect job-rich development, whether or not projects include public funds, so that the community can reach a goal of 50,000 jobs by 2030.

Shingle Creek and West Mississippi Watershed Management Commissions- Fourth Generation Watershed Management Plan

The *Fourth Generation Watershed Management Plan* outlines the watershed commission's responsibilities, operations, and assesses the waters within the watersheds (Shingle Creek and West Mississippi Watershed Management Commissions, 2023). The plan also outlines the implementation plan to accomplish the commission's goals. The management plan goals include:

1. Protect, maintain, and improve the water quality and ecological integrity of the water and natural resources within the watersheds and the downstream receiving waters.
2. Reduce stormwater runoff rates and volumes to limit flood risk, protect conveyance systems, protect surficial groundwater, and reduce or mitigate impacts that have already occurred.

iii. Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic river critical area, agricultural preserves, etc.

The Study Area is currently zoned under three zoning categories including Open Space and Parks District, Transit Oriented Development Greenfield District, and Urban Reserve District (City of Brooklyn Park, 2025)(Appendix B, Figure B-3). The zoning districts are described below:

Open Space and Parks District (OP)

(A) The OP Open Space and Parks District is intended to provide for a district for areas that contain valuable environmental qualities which are to be preserved as park or open space amenities and to prevent the over-crowding of land, to avoid undue concentration of population, a specific public purpose, and/or alleviate the burden of development from environmentally sensitive lands.
(B) This district may be applied only to those properties designated for parks or open space uses on the Comprehensive Plan Future Land Use Map.

Transit Oriented Development Greenfield District (TOD-G)

(A) *Purpose*. The TOD-G Transit Oriented Development Greenfield District is intended to provide standards for new walkable, mixed-use communities.
(B) This district may be applied to those areas and land uses within the LRT Overlay centered on the Oak Grove Transit Station on the 2040 Comprehensive Plan Future Land Use Map.

Urban Reserve District (UR)

(A) The UR Urban Reserve District is intended to provide the following:
    a. The orderly phasing and development of land until city services, including sanitary sewer, storm sewer, and water, are extended into the area in compliance with the Comprehensive Plan.

b. A district for uses that typically require significant amounts of open land area such as athletic and cultural facilities, country clubs, government buildings, educational uses, and land reclamation; and
c. Short-term agriculture uses, very low-density residential uses, and those accessory uses customarily incidental to them.

(B) The district may be applied only to those areas guided as an urban reserve area in the Comprehensive Land Use Plan.

The majority of the Study Area is not located within a designated floodplain except for a portion of the east central area of the Study Area. This area is mapped as a 0.2% chance flood hazard on FEMA FIRM panel 27053C0069F (effective on 11/4/2016) and 27053C0088F (effective on 11/4/2016) (Federal Emergency Management Agency, 2016)(Appendix C, Figure C-3).

Additionally, approximately 50% of the Study Area is designated as Prime Farmland, Farmland of Statewide Importance, or Prime Farmland, if drained.

No portion of the Study Area is zoned as shoreland, wild and scenic rivers, critical area, or any other special zoning overlay.

iv. If any critical facilities (i.e. facilities necessary for public health and safety, those storing hazardous materials, or those with housing occupants who may be insufficiently mobile) are proposed in floodplain areas and other areas identified as at risk for localized flooding, describe the risk potential considering changing precipitation and event intensity.

No critical facilities are proposed within a floodplain.

b. Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.

The AUAR must include a statement of certification from the RGU that its comprehensive plan complies with the requirements set out at 4410.3610, subpart 1. The AUAR document should discuss the proposed AUAR area development in the context of the comprehensive plan. If this has not been done as part of the responses to items 6, 9, 18, 21, and others, it must be addressed here; a brief synopsis should be presented here if the material has been presented in detail under other items. Necessary amendments to comprehensive plan elements to allow for any of the development scenarios should be noted. If there are any management plans of any other local, state, or federal agencies applicable to the AUAR area, the document must discuss the compatibility of the plan with the various development scenarios studied, with emphasis on any incompatible elements.

AUAR Scope

The AUAR will evaluate the compatibility of the proposed development scenario with the applicable comprehensive plans and zoning.

c. *Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 10b above and any risk potential.*

AUAR Scope
The AUAR will identify any necessary mitigation measures for incompatibility to plans and zoning.

11. Geology, soils, and topography/land forms:

Geologic hazards and soil conditions. A map should be included to show any groundwater hazards identified. A standard soils map for the area should be included.

a. *Geology - Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.*

The unconsolidated sediment in the Site vicinity are Pleistocene age upper-terrace deposits, which consist of sand, gravelly sand, and loamy sand (Appendix C, Figure C-5). The upper terrace deposits are overlain by thin deposits of silt, loam, or organic sediment (Meyer & Hobbs, 1989).

The depth to bedrock in the Site vicinity is approximately 101 feet to 200 feet below land surface (Bloomgren, Cleland, & Olsen, 1989). The uppermost bedrock unit in the Site vicinity is the Upper Cambrian, St. Lawrence and Franconia Formations and the Upper Cambrian, Jordan Sandstone (Olsen & Bloomgren, 1989)(Appendix C, Figure C-6). The St. Lawrence Formation consists of dolomitic siltstone and shale in eastern Hennepin County. The fine-grained, glauconitic sandstone and shale of the Franconia becomes dolomitic in western Hennepin County, where the two units are distinguishable only by the higher glauconite content of the Franconia. Fine- to medium-grained quartzose sandstone with minor amounts of white or light-colored shale forms the upper part of the Franconia in parts of the north and west. The Jordan Sandstone is described as quartzose sandstone that is carbonate cemented in the upper 10 to 15 feet of the deposit. The middle part of the deposit is coarse grained, and the basal 10 to 20 feet is fine grained and may contain minor amounts of shale.

No sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions are known to be present or mapped within the Study Area (Minnesota Department of Natural Resources, n.d.).

AUAR Scope
The AUAR will identify any known limitations of the soil within the Study Area.

b. *Soils and topography - Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from*

project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 12.b.ii.

According to the USDA-NRCS Web Soil Survey, the soil at the proposed Study Area consists of the following classifications (Natural Resource Conservation Service, 2019). Several soil units are mapped within the Site. Soil characteristics and properties are provided below in Table 11-1 and illustrated in Appendix C, Figure C-1.

Table 11-1. USDA-NRCS Soil Types

Map Unit Symbol	Map Unit Name	Site Coverage (%)	Farmland Class	Hydrologic Soil Group	Hydric Rating
D10A	Forada sandy loam, 0 to 2 percent slopes	0.5	Prime farmland if drained	B/D	85
D17A	Duelm loamy sand, 0 to 2 percent slopes	0.47	Not prime farmland	A	7
D1B	Anoka and Zimmerman soils, terrace, 2 to 6 percent slopes	5.97	Not prime farmland	A	0
D20A	Isan-Isan, frequently ponded, complex, 0 to 2 percent slopes	27.27	Not prime farmland	A/D	95
D23A	Southhaven loam, 0 to 2 percent slopes	0.06	All areas are prime farmland	B	0
D25A	Soderville loamy fine sand, terrace, 0 to 3 percent slopes	15.07	Farmland of statewide importance	A	10
D27A	Dorset sandy loam, loamy substratum, 0 to 2 percent slopes	0.44	Farmland of statewide importance	A	0
D30A	Seelyeville and Markey soils, depressional, 0 to 1 percent slopes	2.77	Not prime farmland	A/D	100
D4A	Dorset sandy loam, 0 to 2 percent slopes	5.39	Farmland of statewide importance	B	5
D4B	Dorset sandy loam, 2 to 6 percent slopes	1.08	Farmland of statewide importance	B	5
D67A	Hubbard loamy sand, 0 to 2 percent slopes	13.88	Not prime farmland	A	1
D67B	Hubbard loamy sand, 1 to 6 percent slopes	0.92	Not prime farmland	A	3
D6A	Verndale sandy loam, 0 to 2 percent slopes	23.60	Farmland of statewide importance	B	5
D6B	Verndale sandy loam, 2 to 6 percent slopes	1.66	Farmland of statewide importance	B	5
L36A	Hamel, overwash-Hamel complex, 0 to 3 percent slopes	0.91	Prime farmland if drained	C/D	45

Elevations of the Site range from 872 feet above sea level to 888 feet above sea level. The topography of the Site is generally flat (Appendix A, Figure A-4).

AUAR Scope

The Draft AUAR will address future soil corrections and mitigation for soil limitations as needed. Soil limitations may include erosion potential, soil stability, steep slopes, and highly permeable soils.

12. Water resources:

The information called for on the EAW form should be supplied for any of the infrastructure associated with the AUAR development scenarios, and for any development expected to physically impact any water resources. Where it is uncertain whether water resources will be impacted depending on the exact design of future development, the AUAR should cover the possible impacts through a "worst case scenario" or else prevent impacts through the provisions of the mitigation plan.

a. *Describe surface water and groundwater features on or near the site in a.i. and a.ii. below.*

   i. *Surface water - lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, shoreland classification and floodway/floodplain, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include the presence of aquatic invasive species and the water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.*
   Water-related Land Use Management Districts. Such districts should be delineated on appropriate maps and the land use restrictions applicable in those districts should be described. If any variances or deviations from these restrictions within the AUAR area are envisioned, this should be discussed.

Several surface waters are located within the Study Area including wetlands and a small stream (United States Geological Survey, 2025)(Appendix C, Figure C-2). The wetlands are mapped by the Minnesota DNR National Wetland Inventory Wetland Mapper throughout the Study Area (Minnesota Department of Natural Resources, 2024). The majority of the mapped wetlands are classified as freshwater emergent (PEM1). There are small areas of wetland mapped as freshwater forested (PFO1A) and freshwater pond (PUBH). Wetland delineations have been completed for portions of the Study Area. Wetland delineations will be conducted before any development within the Study Area. Any past or future delineations would be included within the Draft AUAR or AUAR updates. The small stream is located within the southeastern portion of the Study Area.

Three surface waters are listed as Minnesota DNR Public Waters (Minnesota Department of Natural Resources, n.d.). The basins are unnamed (Public Waters Inventory Numbers: 27025400, 27025100, and 27025500) and located within the west central and eastern portions of the Study Area. No impaired and specially designated surface waters are located within the Study Area (Appendix C, Figure C-4). One impaired water basin, Goose Lake (MN27-0122-00), is located within one mile of the Study Area (Minnesota Pollution

Control Agency, 2024). The lake is listed for Aquatic Recreation with an impairment for nutrients. No additional impaired or special waters are located within 1-mile of the Study Area (Appendix C, Figure C-4).

The majority of the Study Area is not located within a designated floodplain except for a portion of the east central area of the Study Area. This area is mapped as a 0.2% chance flood hazard on FEMA FIRM panel 27053C0069F (effective on 11/4/2016) and 27053C0088F (effective on 11/4/2016) (Federal Emergency Management Agency, 2016)(Appendix C, Figure C-3).

The surface waters are governed by the Local Government Unit, Shingle Creek and West Mississippi Watershed Management Commissions. No additional surface waters or any additional specially designated waters such as shoreland classification trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, wild and scenic rivers, and outstanding resource value water, or land use management districts are located within the Study Area (Minnesota Department of Natural Resources, n.d.) (Minnesota Department of Natural Resources, n.d.) (Minnesota Department of Natural Resources, n.d.) (U.S. National Park Service, 2021).

ii. Groundwater – aquifers, springs, seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.

Groundwater within the study area is found from 0-10 feet below the ground surface (University of Minnesota, 2018). No known springs or seeps are located within the Study Area (Department of Natural Resources, n.d.).

Several wells are mapped by the Minnesota Department of Health (MDH) Minnesota Well Index within or directly adjacent to the Site, are shown in Table 12-1 and Figure B-5 (Appendix B) (Minnesota Department of Health, 2025). The well statuses are listed and many of the wells are sealed and not active as of the date of this assessment. MDH lists wells that have not been verified in the field and these are within the figure but not within the table below.

Table 12-1. MDH Well Index Wells within the Study Area

Well ID Number	Name	Use	Depth (ft)	Status
122233	Elm Creek Chapel	Public Supply/Non-Comm.-Non-Transient	139	Active
126675	Smith Farms	Domestic	95	Active
133211	Simons, Bill	Domestic	122	Sealed
133243	Greeniger, E.L.	Domestic	120	Active
155926	Dun-Rite Nursery	Irrigation	108	Active
160027	Hall, Ralph	Domestic	94	Active
171060	Strootman, David	Domestic	254	Active
178124	Smith, Robert	Domestic	84	Sealed

Well ID Number	Name	Use	Depth (ft)	Status
199185	Rouillard, Delores	Abandoned	109	Sealed
202986	Jones, Fred	Domestic	128	Active
214492	Smith, Paul	Irrigation	102	Active
224602	Brooklyn Park TW-4	Test Well	120	Unknown
224604	Brooklyn Park TW-6	Test Well	195	Unknown
251827	Mn Dot-Ames	Irrigation	296	---
277791		Other	298	Sealed
405877	Lahr, Bob	Domestic	91	Active
415896	Palmer, Michael	Domestic	155	Active
416086	Nursery Minnesota	Domestic	145	Active
420197	Anderson, David	Domestic	185	Active
439897	Landscape Minnesota	Irrigation	200	Active
450320	Larson, Mick	Domestic	156	Active
450372	Berg, William	Domestic	140	Active
452618	Wood And Nail	public supply/non-comm.-transient	170	Active
520051	Beloche, Wayne	Domestic	156	Active
556721	Grace Fellowship Church	Public supply/non-comm.-transient	172	Active

AUAR Scope

The Draft AUAR may identify additional wells outside the Study Area, if needed, to evaluate the groundwater impacts from the proposed development scenario. At the time of this assessment, no permanent wells are proposed associated with the development scenario.

b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects in Item b.i. through Item b.iv. below.

i. Wastewater - For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.

Observe the following points of guidance in an AUAR:

- *only domestic wastewater should be considered in an AUAR—industrial wastewater would be coming from industrial uses that are excluded from review through an AUAR process;*
- *wastewater flows should be estimated by land use subareas of the AUAR area; the basis of flow estimates should be explained;*
- *the major sewer system features should be shown on a map and the expected flows should be identified;*
- *if not explained under item 6, the expected staging of the sewer system construction should be described;*

- *the relationship of the sewer system extension to the RGU's comprehensive sewer plan and (for metro area AUARs) to Metropolitan Council regional systems plans, including MUSA expansions, should be discussed. For non-metro area AUARs, the AUAR must discuss the capacity of the RGU's wastewater treatment system compared to the flows from the AUAR area; any necessary improvements should be described;*
- *if on-site systems will serve part of the AUAR the guidance in EAW Guidelines on page 16 regarding item 18b under Residential development should be followed.*

1) *If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.*

The City of Brooklyn Park utilizes the Metropolitan Council's Metropolitan Water Resource Recovery Facility for the treatment of municipal wastewater. The facility processes an average of 172 million gallons of wastewater per day with the capacity of 251 million gallons per day (Metropolitan Council, n.d.). The proposed development scenario will discharge all wastewater to the Metropolitan Water Resource Recovery Facility.

AUAR Scope

The Draft AUAR will identify approximate wastewater volumes and associated effects on infrastructure.

2) *If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system. If septic systems are part of the project, describe the availability of septage disposal options within the region to handle the ongoing amounts generated as a result of the project. Consider the effects of current Minnesota climate trends and anticipated changes in rainfall frequency, intensity and amount with this discussion.*

There is no proposed wastewater discharge to any SSTS at the Site.

3) *If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects.*

There is no proposed wastewater discharge to any surface or groundwater resources at the Site.

ii. *Stormwater - Describe changes in surface hydrology resulting from change of land cover. Describe the routes and receiving water bodies for runoff from the project site (major downstream water bodies as well as the immediate receiving waters). Discuss environmental effects from stormwater discharges on receiving waters post construction including how the*

project will affect runoff volume, discharge rate and change in pollutants. Consider the effects of current Minnesota climate trends and anticipated changes in rainfall frequency, intensity and amount with this discussion. For projects requiring NPDES/SDS Construction Stormwater permit coverage, state the total number of acres that will be disturbed by the project and describe the stormwater pollution prevention plan (SWPPP), including specific best management practices to address soil erosion and sedimentation during and after project construction. Discuss permanent stormwater management plans, including methods of achieving volume reduction to restore or maintain the natural hydrology of the site using green infrastructure practices or other stormwater management practices. Identify any receiving waters that have construction-related water impairments or are classified as special as defined in the Construction Stormwater permit. Describe additional requirements for special and/or impaired waters.

For an AUAR the following additional guidance should be followed in addition to that in EAW Guidelines:

- *It is expected that an AUAR will have a detailed analysis of stormwater issues.*
- *A map of the proposed stormwater management system and of the water bodies that will receive stormwater should be provided.*
- *The description of the stormwater systems would identify on-site and "regional" detention ponding and also indicate whether the various ponds will be new water bodies or converted existing ponds or wetlands. Where on-site ponds will be used but have not yet been designed, the discussion should indicate the design standards that will be followed.*
- *If present in or adjoining the AUAR area, the following types of water bodies must be given special analyses:*
  - *lakes: within the Twin Cities metro area a nutrient budget analysis must be prepared for any "priority lake" identified by the Metropolitan Council. Outside of the metro area, lakes needing nutrient budget analysis must be determined by consultation with the MPCA and DNR staff.*
  - *trout streams: if stormwater discharges will enter or affect a trout stream an evaluation of the impacts on the chemical composition and temperature regime of the stream and the consequent impacts on the trout population (and other species of concern) must be included.*

Pre-Construction Stormwater Runoff

Under current conditions, the land cover consists of wetlands, wooded areas, and vegetated areas. Based on topography, stormwater is routed to the low areas of the Study Area. Several stormwater ponds exist throughout the Study Area to provide stormwater management for the existing roads.

AUAR Scope

The Draft AUAR will describe the land cover changes and resulting stormwater routes. It will analyze stormwater within the Study Area including planned stormwater systems and treatment.

iii. *Water appropriation - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use*

and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Discuss how the proposed water use is resilient in the event of changes in total precipitation, large precipitation events, drought, increased temperatures, variable surface water flows and elevations, and longer growing seasons. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation. Describe contingency plans should the appropriation volume increase beyond infrastructure capacity or water supply for the project diminish in quantity or quality, such as reuse of water, connections with another water source, or emergency connections.

If the area requires new water supply wells specific information about that appropriation and its potential impacts on groundwater levels should be given; if groundwater levels would be affected, any impacts resulting on other resources should be addressed.

The proposed development scenario does not anticipate the construction of any additional permanent wells within the Study Area. The Study Area would be connected to the City of Brooklyn Park's municipal water. The City of Brooklyn Park receives its water from Quaternary Drift Aquifer and the Tunnel City Wonewoc aquifers through 17 wells located throughout the city (City of Brooklyn Park, n.d.).

A new water tower will be constructed in approximately 2027 to meet current and future needs of the area. No additional expansion of the municipal water appropriations nor water treatment is expected as part of the proposed development scenario.

<u>AUAR Scope</u>

The Draft AUAR will describe and evaluate any development scenario or project specific anticipated potable water demands and resulting impacts on the City's municipal water system. The Draft AUAR will identify and evaluate the impacts to wells located within the Study Area and if applicable, within the area surrounding the Study Area. It will discuss the resiliency of the water sources for the Study Area and possible contingency for water for the Study Area.

iv. Surface Waters

1) Wetlands - Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed and identify those probable locations.

AUAR Scope

The Draft AUAR will quantify the wetland drain, fill, inundation, dredge, or vegetation impacts anticipated by the proposed development scenario. This will include the avoidance, minimization, and mitigation required for the proposed impacts.

2) *Other surface waters- Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.*
Water surface use. This item need only be addressed if the AUAR area would include or adjoin recreational water bodies.

AUAR Scope

The AUAR will include anticipated impacts to other surface waters present within the Study Area as well as any other surface waters from development scenario. These impacts will be quantified and analyzed for measures of avoidance, mitigation, and minimization.

13. Contamination/Hazardous Materials/Wastes:

a. *Pre-project site conditions - Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.*

The Minnesota Pollution Control Agency (MPCA) “What’s in My Neighborhood” (WIMN) online database was reviewed to determine if any existing contamination or potential environmental hazards exist on or near the Study Area (Minnesota Pollution Control Agency, n.d.) (Appendix B, Figure B-6). The database identified several sites within the Study Area . Several of the Site are listed as Construction and Industrial Stormwater sites and do not pose an ongoing risk of contamination. The majority of the remaining listed sites are listed as hazardous waste sites. These listings do not provide information on specific activities within the Study Area but no record of non-compliance for any of the listed sites were found. These listings do not pose a potential for contamination or hazardous environmental conditions.

The remaining listed sites consist of one Aboveground Tank site and one Petroleum Remediation and Leak Site. The site with an active aboveground tank (TS0122646) has no listed leaks or spills, therefore it is unlikely this Site poses any potential for contamination or hazardous environmental conditions.

The final listed site, a Petroleum Remediation and Leak Site that is listed as inactive (LS0008212). Cleanup efforts have occurred on the site and MPCA have stated within a Site Closure letter "staff has concluded that any remaining contamination, if present, does not appear to pose a threat to public health or the environment.". The letter further states "If future development of this property or the surrounding area is planned, it should be assumed that petroleum contamination may still be present."

Many additional listed Site were also identified within 0.25-miles of the Study Area including hazardous waste generators, stormwater permits, tanks, and remediation sites. The sites are listed below within Table 13-1.

Table 13-1. MPCA's What's in my Neighborhood Sites within 0.25-miles of the Study Area

Site Name	Identification	Activity	Active Status (Yes/No)	Within Study Area
Best Auto Parts	MNR000058214	Hazardous Waste, Very small quantity generator	Yes	Yes
Grace Fellowship Church	C00001679	Construction Stormwater	No	Yes
Jefferson Highway Driving Range	C00012001	Construction Stormwater	Yes	Yes
Takeda Manufacturing U.S.A., Inc.	MNRNE37RN; MNRNE37RR; MNRNE3B73; MNRNE3CPB; MNS000103069; SIU000674; TS0130472	Aboveground Tanks; Hazardous Waste, Large quantity generator; Industrial Stormwater; Wastewater	Yes	No
Target North Campus T0591 and T0592	05300156; 05301156; A00012360; LS0013309; MNR000105817; TS0121758; TS0130052	Aboveground Tanks; Air Quality; Brownfields, Petroleum Brownfield; Hazardous Waste, Very small quantity generator; Industrial Stormwater; Petroleum Remediation; Underground Tanks	Yes	No
Cardinal Health Expansion	C00013265	Construction Stormwater	No	No
SECOA	MNRNE37FC; MNRNE37YK	Industrial Stormwater	No	No
Wurth Adams Headquarters	MNS000308136	Hazardous Waste, Very small quantity generator	Yes	No

Site Name	Identification	Activity	Active Status (Yes/No)	Within Study Area
CFMOTO Powersports Inc	MNS000316520	Hazardous Waste, Minimal quantity generator	Yes	No
Rustoleum	5544WRSTLM131XY; MNR053F64; MNS000322072	Hazardous Waste; Industrial Stormwater; Toxics Reduction	Yes	No
Pride Engineering LLC	MNRNE3DVL; MNS000323520	Hazardous Waste, Small quantity generator; Industrial Stormwater	Yes	No
TH 169 AND 101ST INTERCHANGE	C00056330	Construction Stormwater	Yes	Yes
TH169 and 101st Ave Interchange project	MNS000337128	Hazardous Waste	Yes	Yes
Brooklyn Park - Xylon Ave Extension	C00063347	Construction Stormwater	Yes	No
Takeda PV Solar	C00070876	Construction Stormwater	Yes	No
Rust-Oleum Corporation Distribution Center	MNRNE3FVL; MNS000359504	Hazardous Waste, Very small quantity generator; Industrial Stormwater	Yes	No
Northpark Business Center - Phase I	C00042454	Construction Stormwater	Yes	No
Biomerics	MNS000314408	Hazardous Waste, Very small quantity generator	Yes	No
Michael L Colbert DDS	MNS000136820	Hazardous Waste, Very small quantity generator	Yes	No
Pioneer Critical Power	MNS000340504	Hazardous Waste, Very small quantity generator	Yes	No
H2O Innovation USA, INC	MNR000021410	Hazardous Waste, One time generator	Yes	Yes
Mama Gs Restaurant	LS0008212	Petroleum Remediation, Leak Site	Yes	No
MNDOT 610 Design Build	VP26270	Brownfields, Voluntary Investigation and Cleanup	Yes	No
SP 2750-78 101st Ave N	C00032463	Construction Stormwater	No	Yes
Northpark XIII	C00070684	Construction Stormwater	Yes	No
Xcel Products Inc	MNS000177212	Hazardous Waste, Minimal quantity generator	Yes	No
Crown Lift Trucks	MNR000032581	Hazardous Waste, Very small quantity generator	Yes	No
Winsted Custom Wood Inc	05301100; MNS000135228	Air Quality; Hazardous Waste	Yes	No
Park Nicollet Clinic - Target North Campus	MNS000223073	Hazardous Waste, Very small quantity generator	Yes	No
Woodspring Suites Hotel	C00059049	Construction Stormwater	Yes	No

Site Name	Identification	Activity	Active Status (Yes/No)	Within Study Area
NORTHPARK III	C00053706	Construction Stormwater	Yes	No
Woods at Elm Creek Grading Improvements	C00004329	Construction Stormwater	No	No
Biomerics NLE LLC	MNS000350400	Hazardous Waste, Small quantity generator	Yes	No
Target - North Office Campus	C00006529	Construction Stormwater	Yes	No
DECATUR DRIVE APARTMENTS	C00068561	Construction Stormwater	Yes	No
Allegiance Health Care	TS0122646	Aboveground Tanks	Yes	No
Highview 610 Business Center	C00059506	Construction Stormwater	Yes	No
Laserdyne	MNS000125575	Hazardous Waste	Yes	No
Teleflex	MNRNE3FPV	Industrial Stormwater	Yes	No
Takeda Security House	C00066920	Construction Stormwater	Yes	No
Elm Creek Commerce Center (2nd Addition)	VP13220	Brownfields, Voluntary Investigation and Cleanup	Yes	No
Elm Creek Business Park East	C00003930	Construction Stormwater	No	No
Fabrico Inc	A00022647	Industrial Stormwater	No	No
CP Brooklyn Park	C00064108	Construction Stormwater	Yes	No
Avery Park	C00059438; SUB0061757; SUB0061760; SUB0062247	Construction Stormwater	Yes	No
Costco Wholesale MDO #4094	MNS000347512	Hazardous Waste	Yes	No
Target Technology Backup	TS0121839	Underground Tanks	Yes	Yes
Amoco Oil Co	LS0013535; PB3401; TS0002921	Brownfields, Petroleum Brownfield; Petroleum Remediation, Leak Site; Underground Tanks	No	No
Minneapolis Glass	C00066252; MNS000355072	Construction Stormwater; Hazardous Waste, Very small quantity generator	Yes	No
TESLA INC	MNRNE3DPM	Industrial Stormwater	Yes	No
Optinova Production LLC	MNRNE3FFV; MNS000342504	Hazardous Waste, Small quantity generator; Industrial Stormwater	Yes	No
Northpark Borrow Site	C00036727	Construction Stormwater	Yes	No
Brooklyn Park Datacenter	C00058750	Construction Stormwater	Yes	No
Boston Scientific	MNRNE3FPC	Industrial Stormwater	Yes	No

Site Name	Identification	Activity	Active Status (Yes/No)	Within Study Area
Dedicated Networks Inc.	MNS000355240	Hazardous Waste, Very small quantity generator	Yes	No
NorthPark Business Center	C00050894	Construction Stormwater	Yes	No
Target Technology Center	C00007105	Construction Stormwater	Yes	No
Range USA	C00066752	Construction Stormwater	Yes	No
Nilfisk Inc	MNRNE3FPR; MNS000308576	Hazardous Waste, Very small quantity generator; Industrial Stormwater	Yes	No
Databank MSP3	05301296; TS0131133	Aboveground Tanks; Air Quality	Yes	No
Cardinal Health	MNR000016865	Hazardous Waste, Small quantity generator	Yes	No
Legacy Painting LLC - Norling	MNS000119537	Hazardous Waste	No	No

AUAR Scope

The Draft AUAR will address any contamination that would be caused or exacerbated by project construction and operation of the proposed development scenario. The Draft AUAR will identify any necessary measures to avoid, minimize or mitigate effects from potential environmental hazards, including the development of a Contingency Plan or Response Action Plan, if necessary.

b. *Project related generation/storage of solid wastes - Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.*
Generally, only the estimated total quantity of municipal solid waste generated and information about any recycling or source separation programs of the RGU need to be included.

AUAR Scope

The Draft AUAR will discuss the solid wastes expected during construction of the development scenario and throughout the operations of the buildings within the Study Area. It will estimate total municipal solid waste generated within the Study Area after development as well as provide information about any recycling programs planned for the development scenario.

c. *Project related use/storage of hazardous materials - Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any new above or below ground tanks to store petroleum or other materials. Indicate the number, location, size and age of existing tanks on the property that the project will use. Discuss potential environmental effects from accidental spill or release of hazardous*

materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.
Potential locations of storage tanks associated with commercial uses in the AUAR should be identified (e.g., gasoline tanks at service stations).

AUAR Scope
The Draft AUAR will discuss the hazardous wastes expected during construction of the development scenario and throughout the operations of the buildings within the Study Area. Locations of planned tanks within the Study Area after development will be identified, if applicable. The Draft AUAR will provide information about any environmental effects of the wastes as well as avoidance, minimization, and mitigation efforts planned for hazardous wastes.

d. *Project related generation/storage of hazardous wastes - Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.*

Not required for an AUAR.

14. Fish, wildlife, plant communities, and sensitive ecological resources (rare features):

a. *Describe fish and wildlife resources as well as habitats and vegetation on or near the site.*

The Study Area is partially developed along with a variety cover types including agricultural fields, wooded areas, wetlands, ponds, herbaceous cover, and lawn and landscaping.

b. *Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-038) and/or correspondence number (MCE) from which the data were obtained and attach the Natural Heritage Review letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.*
For an AUAR, prior consultation with the DNR Division of Ecological Resources for information about reports of rare plant and animal species in the vicinity is required. Include the reference numbers called for on the EAW form in the AUAR and include the DNR's response letter. If such consultation indicates the need, an on-site habitat survey for rare species in the appropriate portions of the AUAR area is required. Areas of on-site surveys should be depicted on a map, as should any "protection zones" established as a result.

Braun Intertec Corporation holds a license agreement from the Minnesota Department of Natural Resources (DNR) for a local copy of the Natural Heritage Information System (NHIS) geodatabase (License #038) (Minnesota Department of Natural Resources, n.d.). A query of the database was made on January 19, 2026, for Element Occurrences (EO) within a 3-mile radius of the Site. EOs for fifteen (15) species were identified by the NHIS database (spatial location information of each species cannot be shared in a public document per the license agreement) within 3-miles of the Site. Four of the EOs are for state threatened or endangered species and the remaining entries are species of special concern. A MnDNR Conservation Planning Report (dated: 1/16/2026) was also completed for the Study Area (Appendix C, Exhibit C-7). The report identified the Study Area located within a USFWS Regulatory Layer for Rusty Patched Bumble Bee High Potential Zone. No MBS Sites of Biodiversity Significance, DNR Native Plant Communities, Calcareous Fens, DNR Old Growth Stands, MN Prairie Conservation Plan Sites, Lakes of Biological Significance, nor USFWS Bat Habitat Conservation Plan Sites were identified within the report's designated search areas.

An online query was also submitted to the U.S. Fish & Wildlife (USFWS) database through the Information for Planning and Conservation (IPaC) tool on January 16, 2026 (U.S. Fish and Wildlife Service, n.d.). The IPaC results (Appendix C, Exhibit C-8) indicated that the Site is within the range of one federally listed species, one non-essential population species, and three species proposed for listing as threatened: the endangered Rusty-patched Bumble Bee, a Non-Essential Experimental Population of the Whooping Crane, and the Western Regal Fritillary, the Monarch Butterfly, and the Salamander Mussel which are proposed for listing as threatened.

The IPaC results do not indicate observations of these species near or within the Site. IPaC results identified species that may occur within the Site based on the broad geographic ranges of the species (such as occurrence within the county). In contrast, the NHIS results report actual observations within a set distance (three miles was used for this report). A summary of the listed species identified in the IPaC and NHIS queries is listed in Table 14-1 below.

Table 14-1. Listed State and Federal Protected Species

Common Name	Scientific Name	Type	Federal Status	State Status
Mucket	*Actinonaias ligamentina*	Mussel	---	Threatened
Western Regal Fritillary	*Argynnis idalia occidentalis*	Insect	Proposed Threatened	Special Concern
Rusty-patched Bumble Bee	*Bombus affinis*	Insect	Endangered	---
Red-shouldered Hawk	*Buteo lineatus*	Bird	---	Special Concern
Henslow's Sparrow	*Centronyx henslowii*	Bird	---	Endangered
Lark Sparrow	*Chondestes grammacus*	Bird	---	Special Concern
Rattlebox	*Crotalaria sagittalis*	Plant	---	Special Concern
Trumpeter Swan	*Cygnus buccinator*	Bird	---	Special Concern

Common Name	Scientific Name	Type	Federal Status	State Status
Monarch Butterfly	*Danaus plexippus*	Insect	Proposed Threatened	---
Big Tick Trefoil	*Desmodium cuspidatum var. longifolium*	Plant	---	Threatened
Acadian Flycatcher	*Empidonax virescens*	Bird	---	Special Concern
Blanding's Turtle	*Emydoidea blandingii*	Reptile	---	Threatened
Big Brown Bat	*Eptesicus fuscus*	Bat	---	Special Concern
Whooping Crane	*Grus americana*	Bird	Non-Essential Population	---
Creek Heelsplitter	*Lasmigona compressa*	Mussel	---	Special Concern
Black Sandshell	*Ligumia recta*	Mussel	---	Special Concern
Little Brown Myotis	*Myotis lucifugus*	Bat	---	Special Concern
Gophersnake	*Pituophis catenifer*	Snake	---	Special Concern
Salamander Mussel	*Simpsonaias ambigua*	Mussel	Proposed Endangered	---
Fawnsfoot	*Truncilla donaciformis*	Mussel	---	Threatened
Bell's Vireo	*Vireo bellii*	Bird	---	Special Concern

AUAR Scope

The AUAR will evaluate the suitability of habitat for the identified species and evaluate the impact of the development scenario on the species.

c. *Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project including how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.*

AUAR Scope

The AUAR will assess the impact of the development scenario to wildlife, plants, threatened and endangered species, and rare features. This evaluation will be completed through desktop review of resources including aerial photographs, previous site visit photos, and other publicly available information. The Draft AUAR will also evaluate the effect of climate trends on the ecosystems, wildlife, and plants within the Study Area.

d. *Identify measures that will be taken to avoid, minimize, or mitigate the adverse effects to fish, wildlife, plant communities, ecosystems, and sensitive ecological resources.*

AUAR Scope

The AUAR will identify measures that will be part of the development scenario and each construction project to mitigate the impact to species identified in 14.b and c.

15. Historic properties:

Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.

For an AUAR, contact with the State Historic Preservation Office and State Archeologist is required to determine whether there are areas of potential impacts to these resources. If any exist, an appropriate site survey of high probability areas is needed to address the issue in more detail. The mitigation plan must include mitigation for any impacts identified.

No properties were identified or listed within one mile of the Study Area on the National Register of Historic Places (U.S. National Park Service, 2020). Thirteen (13) listed historical sites are located within the Study Area per Minnesota's Statewide Historic Inventory Portal (MNSHIP) (Table 15-1) (State Historic Preservation Office, n.d.). No archaeological sites are identified within the sections containing the Study Area in the Office of the State Archaeologist (OSA) Portal (Department of Administration State Archaeologist, n.d.).

Table 15-1: Minnesota's Statewide Historic Inventory Portal Results

Historic Inventory Number	Historic Name	Historic Function/Use
HE-MGC-00066	Karrow Farmstead	Agriculture/Subsistence, Farmstead
HE-BPC-00071	Swanson, Christian, House	Domestic, Single Dwelling
HE-BPC-00074	Smith-Gorder Farmstead	Agriculture/Subsistence, Farmstead
HE-BPC-00075	Jenkins-Stansfield House	Domestic, Single Dwelling
HE-BPC-00019	Silas Merrill Farmstead	Agriculture/Subsistence, Farmstead
HE-BPC-00038	District 33 School	Education, School
HE-MGC-00049	Peterson House	Domestic, Single Dwelling
HE-MGC-00065	Kmetz House	Domestic, Single Dwelling
HE-BPC-00001	Palmer House	Domestic, Single Dwelling
HE-BPC-00002	Schreiber Farmstead	Agriculture/Subsistence, Farmstead
HE-BPC-00056	Schneider House	Domestic, Single Dwelling
HE-BPC-00058	Walton House	Domestic, Single Dwelling
HE-MGC-00064	Martin Farmstead	Agriculture/Subsistence, Farmstead

A letter of consultation with the Minnesota State Preservation Office (SHPO) was sent on January 9, 2025 (Appendix D, Exhibit D-2). In a response dated February 26, 2025, SHPO recommended a Phase Ia archaeological assessment to be conducted to assess past disturbances and extent historical buildings and archaeological sites.

AUAR Scope

The Draft AUAR will include the results of a Phase Ia archaeological assessment (currently pending), any further studies that may be required as a result of the Phase Ia archaeological assessment and any recommendations from SHPO. The Draft AUAR will also describe anticipated effects to historic properties and avoidance, minimization, and mitigation to the anticipated effects.

16. Visual:

Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

Any impacts on such resources present in the AUAR should be addressed. This would include both direct physical impacts and impacts on visual quality or integrity. EAW Guidelines contains a list of possible scenic resources on page 13.

If any non-routine visual impacts would occur from the anticipated development, this should be discussed here along with appropriate mitigation.

The Study Area is relatively flat with minor changes in elevation from 870 to 886 msl. Natural scenic views are limited from the Rush Creek regional trail, which include ponds, wetlands, grasslands, and mature oak trees (City of Brooklyn Park). The surrounding areas are primarily residential, industrial and commercial mixed uses, and highways with several unobstructed and obstructed views. The trail and surrounding green space is not proposed to be altered therefore no changes to the scenic views will occur as development is completed within the Study Area.

AUAR Scope

The Draft AUAR will identify vapor plumes or glare from lights anticipated, if any, as part of the development of the Study Area. The Draft AUAR will address any visual impacts from the development of the Study Area and any applicable mitigation proposed to reduce impacts.

17. Air:

a. *Stationary source emissions - Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.*

   This item is not applicable to an AUAR. Any stationary air emissions source large enough to merit environmental review requires individual review.

Based on the Environmental Quality Board AUAR Guidance, this item is not applicable to an AUAR. Any stationary air emissions source large enough to merit environmental review requires individual review.

b. *Vehicle emissions - Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.*
Although the Pollution Control Agency no longer issues Indirect Source Permits, traffic-related air quality may still be an issue if the analysis in item 20 indicates that development would cause or worsen traffic congestion. The general guidance for item 22 in EAW Guidelines should still be followed. Questions about the details of air quality analysis should be directed to the MPCA staff.

The Minnesota Department of Transportation (MnDOT) has developed a screening method designed to identify intersections that will not cause a carbon monoxide (CO) impact above state standards. MnDOT has demonstrated that even the 10 highest traffic volume intersections in the Twin Cities do not experience CO impacts. Therefore, intersections with traffic volumes lower than these 10 highest intersections will not cause a CO impact above state standards. MnDOT's screening method demonstrates that intersections with total daily approaching traffic volumes below 82,300 vehicles per day will not have the potential for causing CO air pollution problems. The AUAR will include an analysis of future traffic volumes for the intersections in the study area and will determine if any future conditions exceed the criteria that would lead to a violation of the air quality standards.

c. *Dust and odors – Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 17a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.*
Dust and odors need not be addressed in an AUAR, unless there is some unusual reason to do so. The RGU might want to discuss as part of the mitigation plan, however, any dust control ordinances in effect.

<u>AUAR Scope</u>
The AUAR will identify any dust and odors of concern from construction activities and future uses within the AUAR Study Area. The AUAR will also identify any best management practices or mitigation measures for the Study Area.

18. Greenhouse Gas (GHG) Emissions/Carbon Footprint:

a. *GHG Quantification: For all proposed projects, provide quantification and discussion of project GHG emissions. Include additional rows in the tables as necessary to provide project-specific emission sources. Describe the methods used to quantify emissions. If calculation methods are not readily*

available to quantify GHG emissions for a source, describe the process used to come to that conclusion and any GHG emission sources not included in the total calculation.

AUAR Scope

Table 18-1 will include a summary of the potential construction-related GHG emissions for this project. The supporting calculations will be presented in Exhibit E-2. Construction-related greenhouse gas (GHG) emissions from combustion will be estimated using data from the Environmental Quality Board's Climate Calculator combined with project-specific information to arrive at the estimates that will be presented in the Draft AUAR.

Table 18-1. Construction GHG Emissions

Phase	Cumulative CO_2e Emissions	Annualized CO_2e Emissions
Construction equipment		
Land use change (construction)		
Construction waste		
Total		

Table 18-2. Operational Emissions

Phase	Cumulative CO_2e Emissions	Annualized CO_2e Emissions
Building energy consumption		
HFC leakage		
Treatment of waste off-site		
Total		

b. GHG Assessment

i. Describe any mitigation considered to reduce the project's GHG emissions.

AUAR Scope

The AUAR will describe potential design strategies and mitigation measures associated with the development scenarios.

ii. Describe and quantify reductions from selected mitigation, if proposed to reduce the project's GHG emissions. Explain why the selected mitigation was preferred.

AUAR Scope

Reductions of GHG will be indicated and quantified.

iii. *Quantify the proposed projects predicted net lifetime GHG emissions (total tons/#of years) and how those predicted emissions may affect achievement of the Minnesota Next Generation Energy Act goals and/or other more stringent state or local GHG reduction goals.*

AUAR Scope

The AUAR will quantify the net greenhouse gas emissions for the development scenario and its alignment with the State of Minnesota GHG reduction goals.

19. Noise:

Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including: 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

Construction noise need not be addressed in an AUAR, unless there is some unusual reason to do so. The RGU might want to discuss as part of the mitigation plan, however, any construction noise ordinances in effect.

If the area will include or adjoin major noise sources, a noise analysis is needed to determine if any noise levels in excess of standards would occur, and if so, to identify appropriate mitigation measures. With respect to traffic-generated noise, the noise analysis should be based on the traffic analysis of item 18.

Minnesota's noise pollution rules are based on statistical calculations that quantify noise levels over a one-hour monitoring period. The L10 calculation is the noise level that is exceeded for 10 percent, or six minutes, of the hour, and the L50 calculation is the noise level exceeded for 50 percent, or 30 minutes, of the hour. There is not a limit on maximum noise. The statutory limits for a residential location are L10 = 65 dBA and L50 = 60 dBA during the daytime (7:00 a.m. – 10:00 p.m.) and L10 = 55 dBA and L50 = 50 dBA during the nighttime (10:00 p.m. – 7:00 a.m.) (Minn. R. 7030.0040). This means that during the one-hour period of monitoring, daytime noise levels cannot exceed 65 dBA for more than 10 percent of the time or 60 dBA more than 50 percent of the time. The basic noise rules for other noise area classifications are:

Table 19-1. State Noise Standards

Noise Area Classification	Daytime		Nighttime	
	L_{10}	L_{50}	L_{10}	L_{50}
1	65	60	55	50
2	70	65	70	65
3	80	75	80	75

AUAR Scope

The AUAR will discuss the ambient noise levels as well as expected noise levels from the development scenario. It will identify the nearby sensitive receptors as well as an evaluation of the conformance to the state of Minnesota noise standards and potential nuisance noise sources.

20. Transportation:

a. *Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.*
For AUAR reviews a detailed traffic analysis will be needed, conforming to the MnDOT guidance as listed on the EAW form. The results of the traffic analysis must be used in the response to Vehicle Related Air Emissions and Noise.

Vehicle traffic is routed through the Study Area mostly from State Highway 610, U.S. Highway 169, and adjacent local roads. The 2023 Annual Daily Average traffic volumes throughout the Study Area is shown in Table 20-1: Current Traffic Counts

Table 20-1: Current Traffic Counts

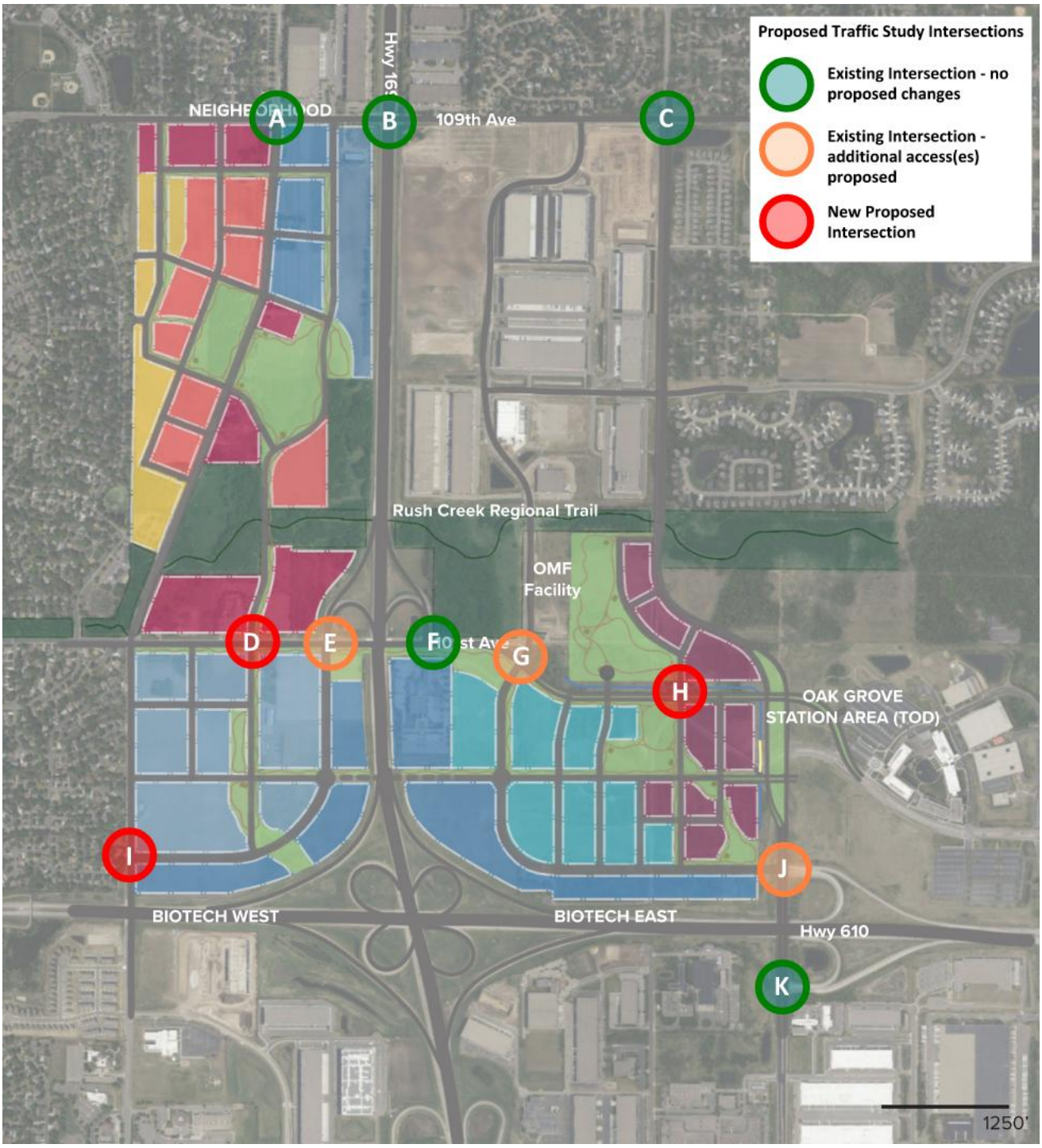
Road	Daily Vehicle Volume
Jefferson Highway (North of 101st Ave. N.)	4,160
Jefferson Hwy (South of 101st Ave. N.)	5,083
101st Ave. N. (E. of Jefferson Highway)	4,100
109th Ave. N. (E. of Jefferson Highway)	6,100
State Highway 610 (E. of US 169)	73,621
U.S. Highway 169 (S. of 101st Ave)	50,079

(Minnesota Department of Transportation, n.d.)

AUAR Scope

A traffic impact study and transportation analysis evaluating the impacts of the development scenario(s) in the AUAR Study Area on the surrounding traffic and capacity for the surrounding streets and intersections will be conducted as part of the AUAR including the intersections shown below in Illustration 1. Additional parking, transit, and bike/pedestrian information and impact analysis will be included within the AUAR.

Illustration 1: Proposed Traffic Study Intersections



The proposed intersections that will be included in the traffic study were decided through conversation within the staff at the City of Brooklyn Park with the following rationale for each intersection.

Reference	Location	Rationale
A	Jefferson Hwy & 109th Ave N	Existing intersection of a Minor Collector (Jefferson Hwy) with a Minor Expander (109th Ave N)
B	Hwy 169 & 109th Ave N	Existing intersection of a Minor Expander (109th Ave N) with a Principal Arterial (Hwy 169)
C	Winnetka Ave N & 109th Ave N	Existing intersection of a Minor Expander (109th Ave N) with a Minor Reliever (Winnetka Ave)
D	101st Ave and new N/S road	101st Ave N is a Major Collector, and the new N/S road is expected to be an important corridor and connector within the full build out scenario.
E	Hwy 169 & 101st interchange west	Existing interchange of a Principal Arterial (Hwy 169) and a Major Collector (101st Ave N); An additional connection/road is proposed for the intersection from the south that will be an important corridor and connector within the full build scenario.
F	Hwy 169 & 101st interchange east	Existing interchange of a Principal Arterial (Hwy 169) and a Major Collector (101st Ave N)
G	101st Ave N and Xylon Ave N	Existing intersection a Major Collector and Xylon Ave N; An additional connection/road is proposed for the intersection from the south that will be an important corridor and connector within the full build scenario.
H	Realigned 101st Ave N intersection	The planned Blue Line Extension Project is anticipated to realign 101st Ave N, a Major Collector, and the NW Growth Area Plan is proposing for a new north/south crossing through-street that will be an important corridor and connector within the full build scenario.
I	Jefferson Hwy and new E/W road	Jefferson Hwy is a Major Collector, and the the NW Growth Area Plan is proposing a new street to the east that will be an important corridor and connector within the full build scenario.
J	Hwy 610 & W Broadway interchange north	Existing interchange of a Principal Arterial (Hwy 610) and a Minor Reliever (W Broadway); An additional connection/road is proposed for the intersection from the west that will be an important corridor and connector within the full build scenario.
K	Hwy 610 & W Broadway interchange south	Existing interchange of a Principal Arterial (Hwy 610) and a Minor Reliever (W Broadway)

b. *Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW. Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 (available at: http://www.dot.state.mn.us/accessmanagement/resources.html) or a similar local guidance.*

AUAR Scope
The AUAR will include a summary and the conclusions of the traffic impact study and transportation analysis.

c. *Identify measures that will be taken to minimize or mitigate project related transportation effects.*

AUAR Scope
The AUAR will include mitigation measures identified through the traffic impact study and transportation analysis.

21. Cumulative potential effects:

Because the AUAR process by its nature is intended to deal with cumulative potential effects from all future developments within the AUAR area, it is presumed that the responses to all items on the EAW form automatically encompass the impacts from all anticipated developments within the AUAR area.

However, the total impact on the environment with respect to any of the items on the EAW form may also be influenced by past, present, and reasonably foreseeable future projects outside of the AUAR area. The cumulative potential effect descriptions may be provided as part of the responses to other appropriate EAW items, or in response to this item.

a. *Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.*

AUAR Scope
The geographic scale considered in the cumulative potential effects analysis would include land adjacent to and within an approximately one-mile radius of the AUAR study area. It is anticipated that the full buildout of the AUAR area would occur in phases over several years based on market conditions. The AUAR will assess any foreseeable projects outside the development scenario as well as their interacting potential for cumulative environmental effects.

b. *Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.*

Reasonably foreseeable projects are defined as funded or planned future projects within the geographic scale that are to be constructed within the next ten years (2035) by other private or public entities, and project proposers that have made the future project plans and timelines publicly available. The AUAR will identify all reasonably foreseeable projects that may interact with the potential environmental effects of the developments scenario(s) within the AUAR Study Area. Desktop resources to be reviewed may include the EQB Monitor, City of Brooklyn Park's current and planned projects, and Minnesota Department of Transportation and Hennepin County's construction projects.

c. *Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.*

The AUAR will include a discussion of the potential cumulative potential effects associated with nearby ongoing and planned projects.

22. Other potential environmental effects:

If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

No other potential environmental effects are anticipated to be included in the Draft AUAR.

RGU Certification. *(The Environmental Quality Board will only accept **SIGNED** Environmental Assessment Worksheets for public notice in the EQB Monitor.)*

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature _____ Date _____

Title _____

Appendix A. General Project Maps

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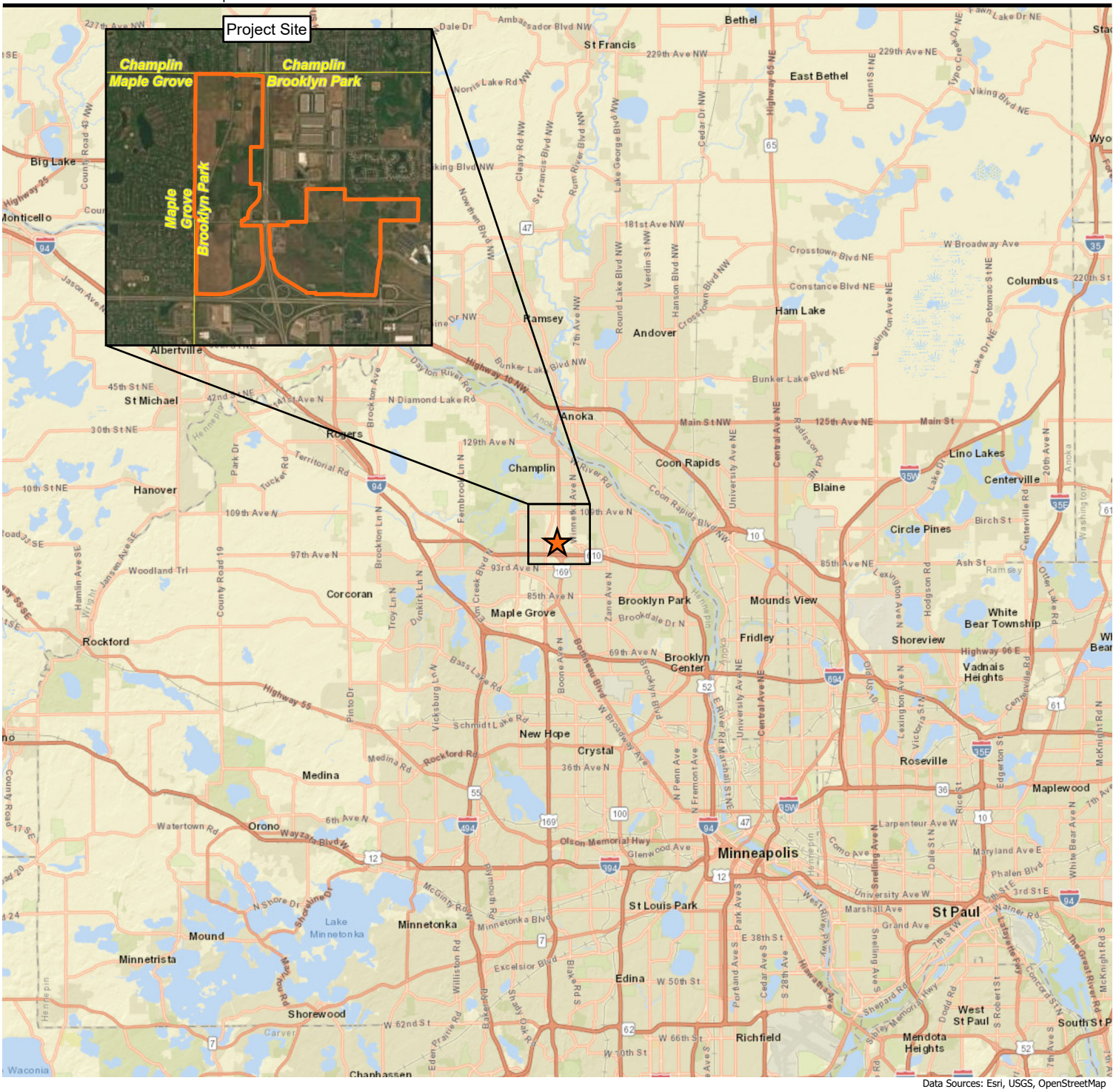

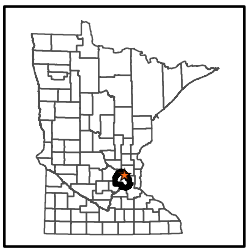

Project Site

N

0 2.5 5 Miles

Scale 1" = 5 mi

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Project No:
B2410018

Drawing No:
FigA-1_ProjLocMap

Drawn By:	SL
Date Drawn:	11/11/2024
Checked By:	MU
Last Modified:	11/7/2025

Northwest Growth Area Plan

Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

Project Location Map

Figure A-1

F:\2024\B2410018\GIS\B2410018.aprx

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Drawing Information

Project No: B2410018

Drawing No: FigA-2_SiteBoundary_T

Drawn By:	SL
Date Drawn:	1/3/2024
Checked By:	MU
Last Modified:	1/6/2026

Project Information

Northwest Growth Area Plan

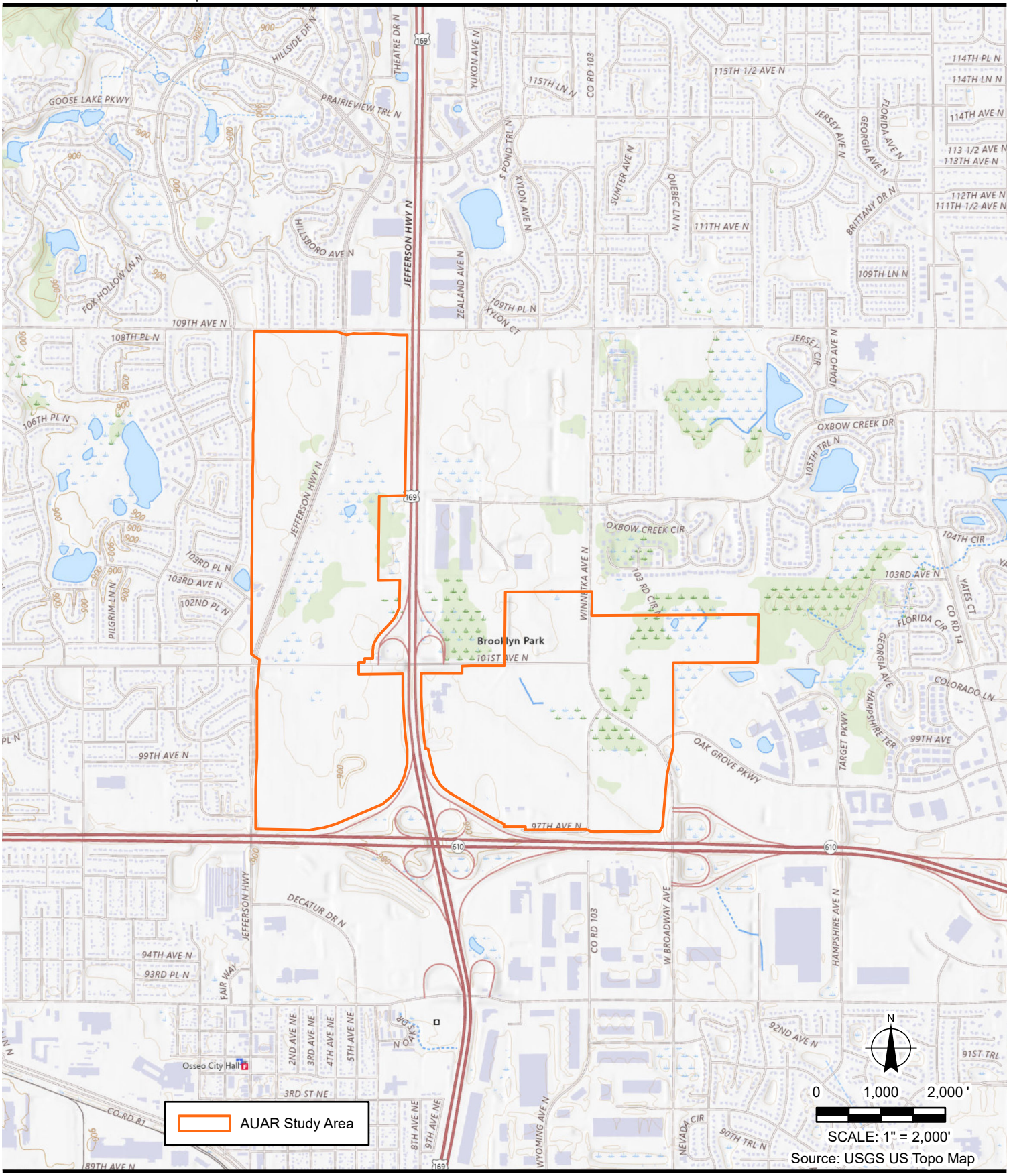
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

Study Area Boundary Map

Figure A-2

F:\2024\B2410018\GIS\B2410018.aprx



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Project No:	B2410018
Drawing No:	FigA-3_USGS_Topo
Drawn By:	SL
Date Drawn:	11/11/2024
Checked By:	MU
Last Modified:	11/7/2025

Northwest Growth Area Plan

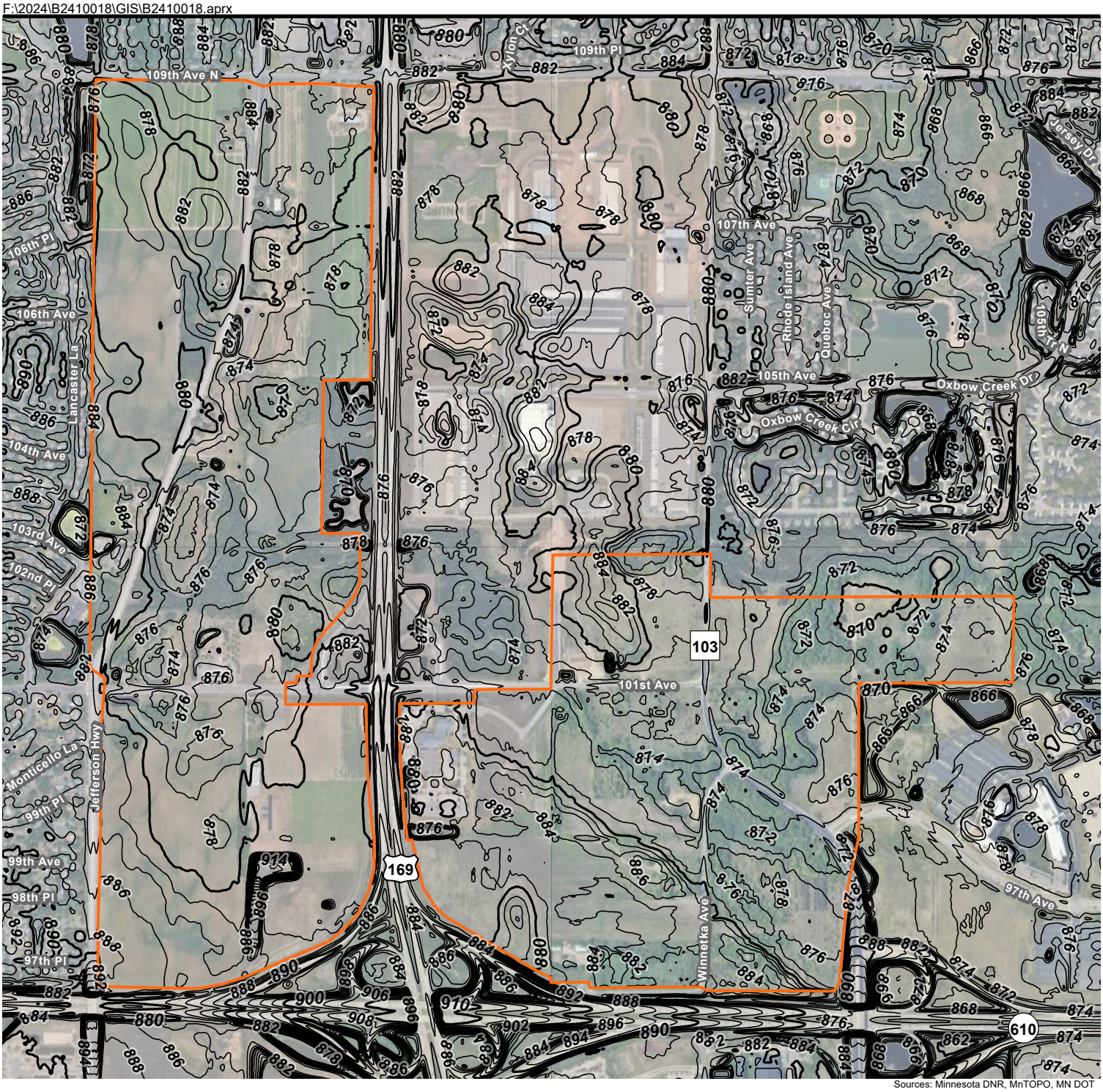
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

USGS Topographic Map

Figure A-3

F:\2024\B2410018\GIS\B2410018.aprx



Sources: Minnesota DNR, MnTOPO, MN DOT

AUAR Study Area

MnTOPO Surface Contours

2' Intermediate Contour

10' Index Contour

N

0 600 1,200 Feet

Scale 1" = 1,200'

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Northwest Growth Area Plan

Brooklyn Park, Minnesota

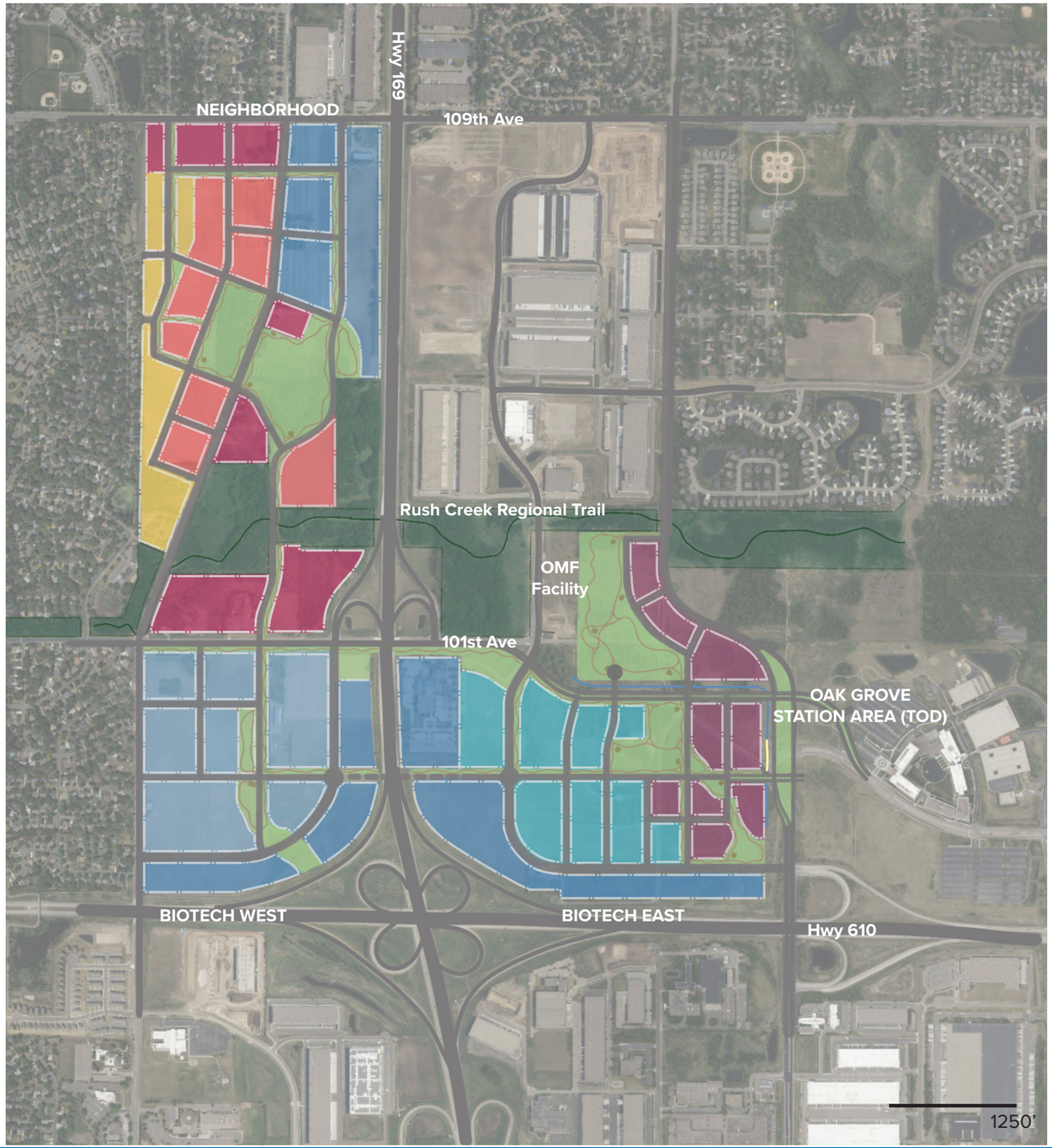
Brooklyn Park, Minnesota

Surface Contours Map

Figure A-4

Exhibit A-5

DRAFT VISION PLAN - LAND USES



USES

- Low/Med Density Residential
- Med/High Density Residential
- Neighborhood Mixed Use
- TOD Mixed Use
- Innovation Mixed Use East
- Innovation Mixed Use West
- Production & Manufacturing
- Natural Space
- Park / Open Space
- Main Bike/Ped Trails

YIELD RANGE ESTIMATES

	Residential	Non-Residential Space
Low/Med Density Residential	160-600 units	N/A sq ft
Med/High Density Residential	900-1,800 units	N/A sq ft
Neighborhood Mixed Use	720-1,440 units	400,000 - 1,200,000 sq ft
TOD Mixed Use	720-1,620 units	1,700,000M - 2,500,000 sq ft
Innovation Mixed Use East	360-1,080 units	1,400,000 - 4,200,000 sq ft
Innovation Mixed Use West	440-1,320 units	1,400,000 - 2,800,000 sq ft
Production & Manufacturing	340-680 units	1,500,000 - 3,000,000 sq ft
Natural Space	N/A	N/A
Park / Open Space	65 acres (*not including greenways*)	

TOTALS

3,640 - 8,540 units	6,400,000 - 13,800,000 sq ft

LADND USES - PRELIMINARY DETAILS PROVIDED AS REFERENCE

Category	Area	Residential Density Range (Assumptions)	Uses	Typical Building Types
Low/Med Density Res.	20 acres	8-30 u/a	Residential	Townhouse/Middle Housing
Med/High Density Res.	30 acres	30-60 u/a	Residential	Townhouse/Middle Housing, Apartment
Neighborhood Mixed Use	40 acres	30-60 u/a	Residential, Retail, Office	Apartment (Standalone retail allowed on PPOD – extent TBD)
TOD Mixed Use	30 acres	40-90 u/a	Multifamily Residential, retail, office, hospitality, research/labs	FAR-driven (highest FAR)
Innovation East Mixed Use	45 acres	20-60 u/a	Multifamily Residential, retail, office, hospitality, research/labs	FAR-driven (medium FAR)
Innovation West Mixed Use	55 acres	20-60 u/a	Multifamily Residential, retail, office, hospitality, research/labs	FAR-driven (medium FAR)
Production & Manufacturing	85 acres	20-40 u/a	Manufacturing. Allow supportive uses (Multifamily Residential, retail, office, hospitality, research/labs) on the same block as part of a development that is primarily manufacturing.	FAR-driven (lowest FAR)

Appendix B. Land Use Features

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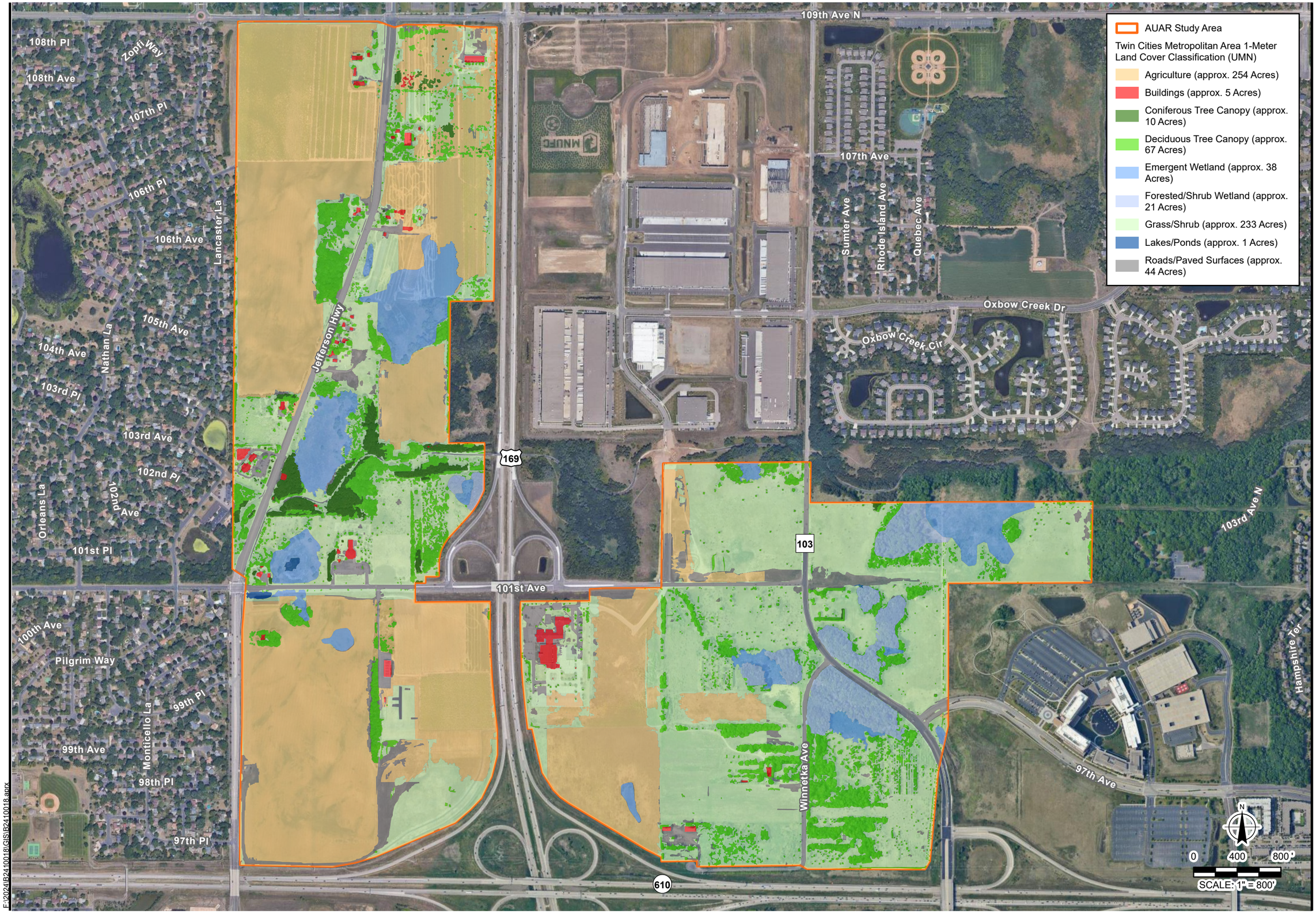

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Drawing Information

Project No: B2410018

Drawing No: FigB-1_ExLandCover_T

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Last Modified:	11/7/2025

Project Information

Northwest Growth Area Plan

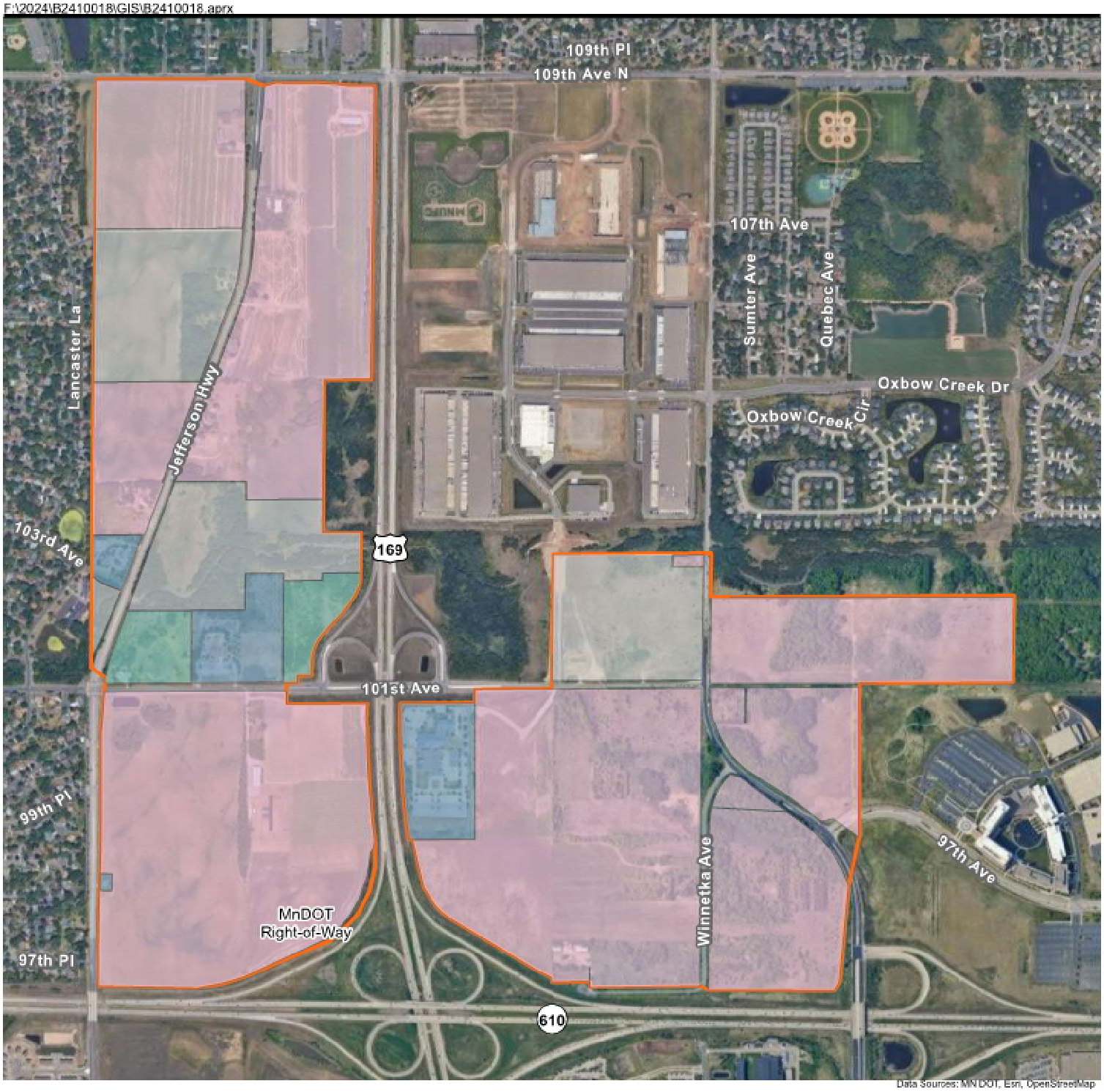
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

Existing Land Cover Type

Figure B-1

F:\2024\B2410018\GIS\B2410018.aprx



AUAR Study Area

Future Land Use (Brooklyn Park Comprehensive Plan 2040)

- Business Park Area
- Institutional Area
- Mixed Use Area
- Parks/Open Space Area

N

0 600 1,200 Feet

Scale 1" = 1,200'

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Drawing No: FigB-2_PropLandCover

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Northwest Growth Area Plan

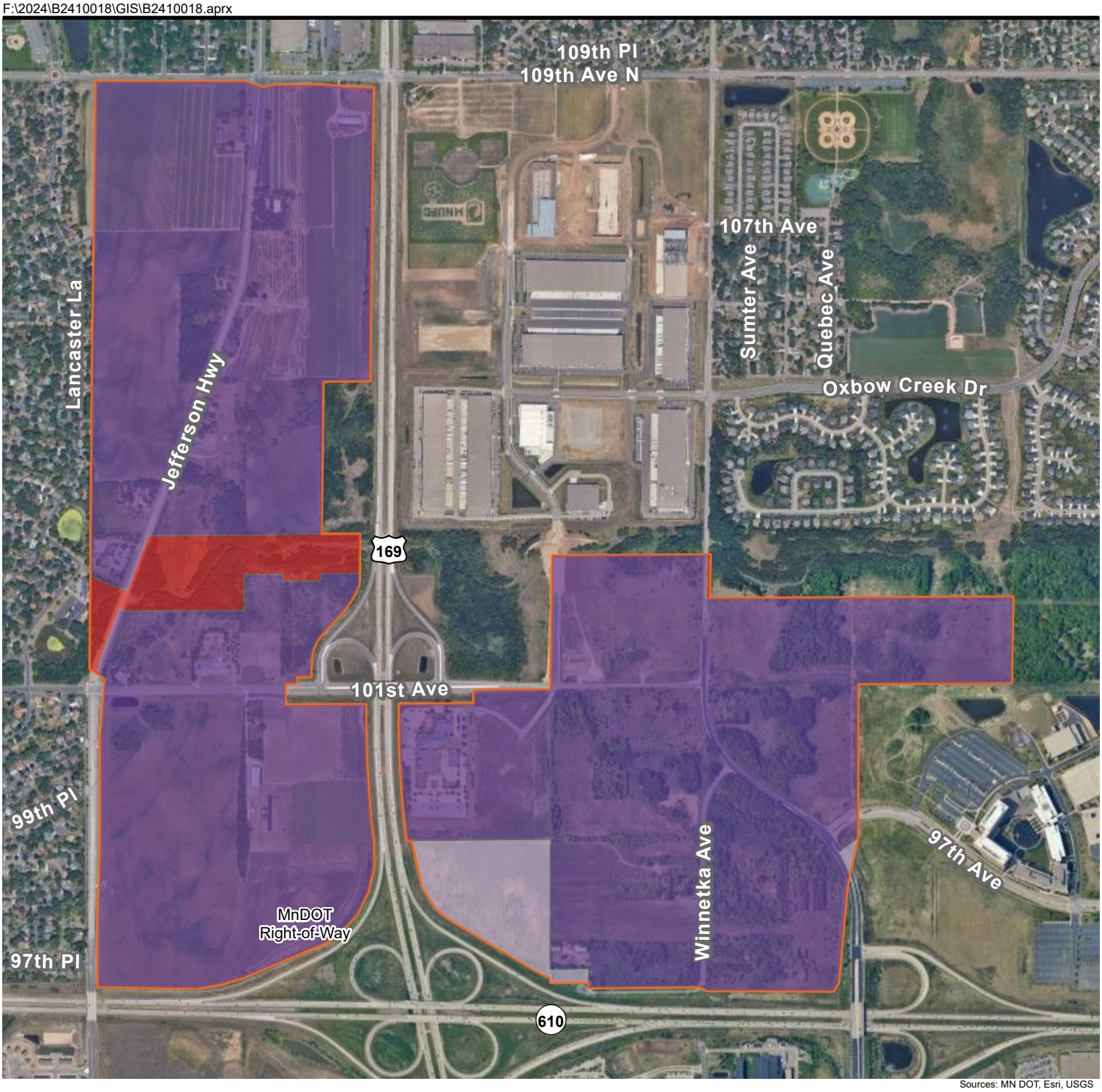
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

Future Land Use

Figure B-2

F:\2024\B2410018\GIS\B2410018.aprx



Sources: MN DOT, Esri, USGS

AUAR Study Area

Zoning Description (Brooklyn Park)

- Open Space and Parks District
- Transit Oriented Development Greenfield District
- Urban Reserve District

N

0 600 1,200 Feet

Scale 1" = 1,200'

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Drawing No: FigB-3_Zoning

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Northwest Growth Area Plan

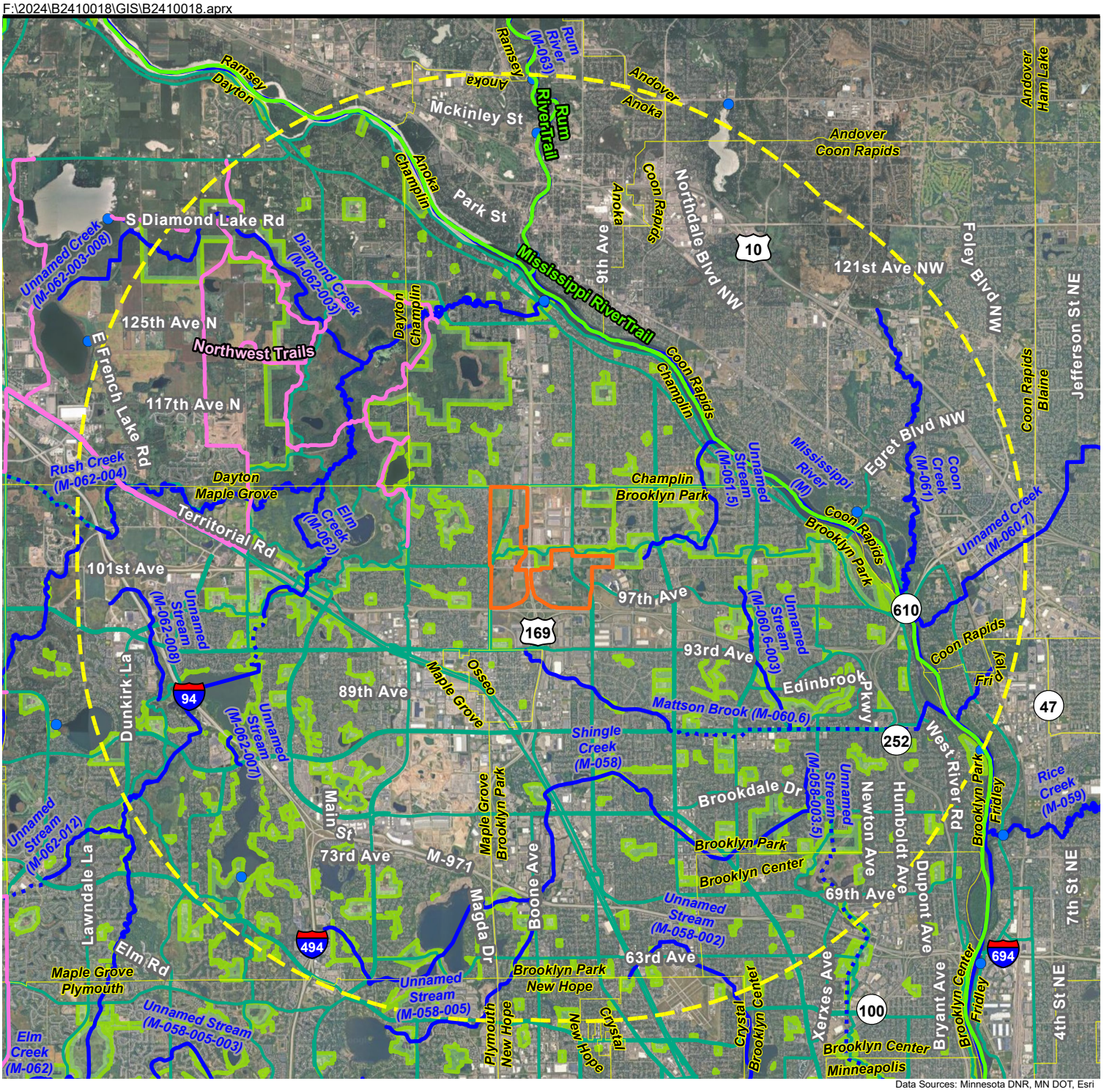
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

Current Zoning Map

Figure B-3

F:\2024\B2410018\GIS\B2410018.aprx



Data Sources: Minnesota DNR, MN DOT, Esri

- AUAR Study Area
- 5 Mile Buffer
- Township Boundary
- Hennepin County Parks
- Hennepin County Bikeway and Pedestrian System
- Snowmobile Trail
- State Park Trails/Roads
- Public Water Watercourse
- Public Ditch/Altered Natural Watercourse
- Public Water Access Sites in Minnesota

N

0 4,500 9,000 Feet

Scale 1" = 9,000'

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Project No: B2410018

Drawing No: FigB-4_TrailsParksRec

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Northwest Growth Area Plan

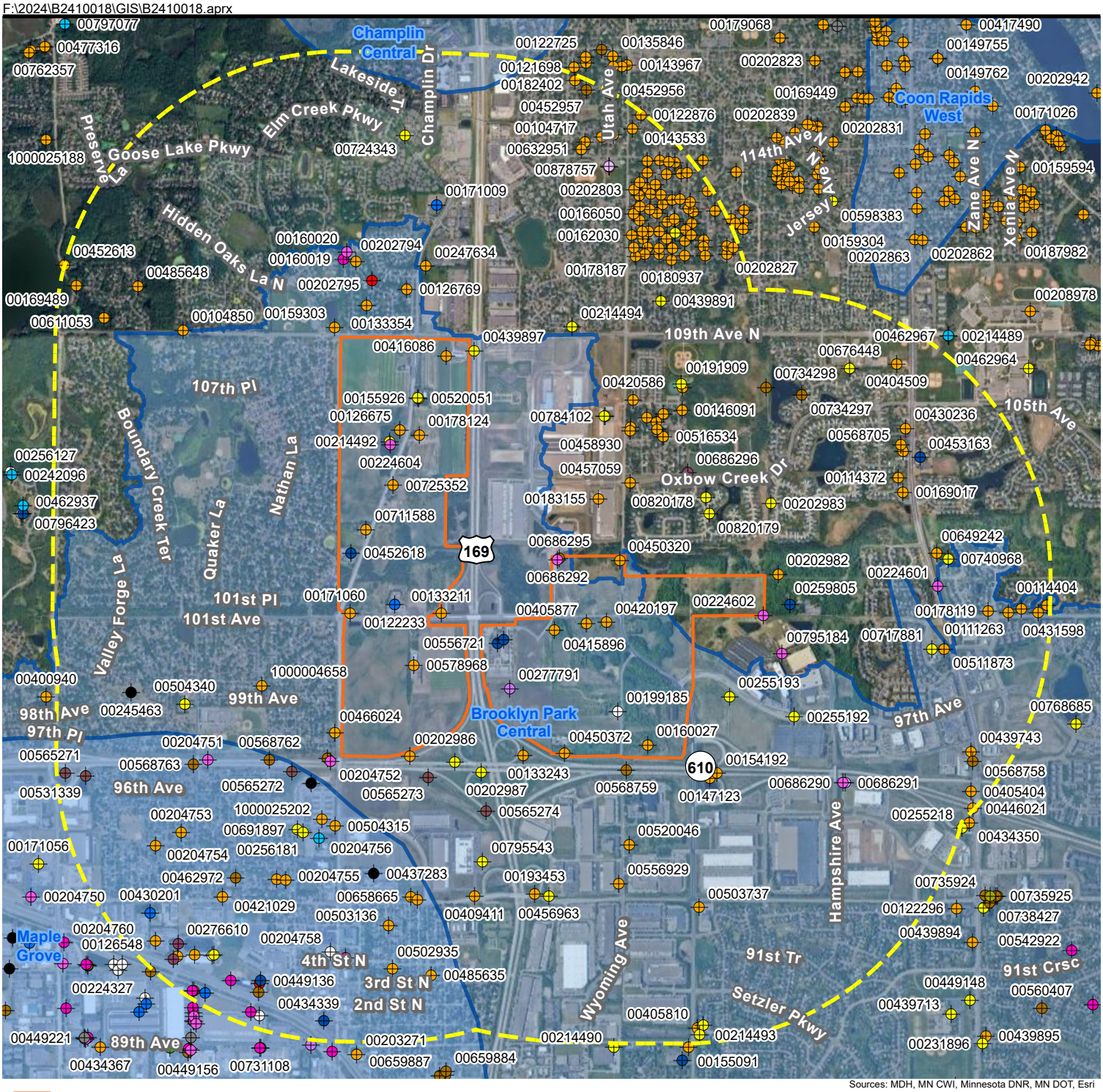
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

Parks, Trails, and Other Recreational Areas

Figure B-4

F:\2024\B2410018\GIS\B2410018.aprx



Sources: MDH, MN CWI, Minnesota DNR, MN DOT, Esri

- AUAR Study Area
- 1 Mile Radius
- Wellhead Protection Areas

Verified Wells

- No Use Assigned
- Abandoned
- Commercial
- Domestic
- Environmental Bore Hole
- Industrial
- Irrigation
- Monitor Well
- Observation Well
- Other (specify in remarks)
- Community Supply (municipal)
- Public Suppply/Non-Comm.-Transient
- Public Supply/Non-Comm.-Non-Transient
- Public Supply/Non-Community
- Piezometer
- Remedial
- Test Well
- Unknown

N

0 1,300 2,600 Feet

Scale 1" = 2,600'

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Drawing No: FigB-5_Wells

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Northwest Growth Area Plan

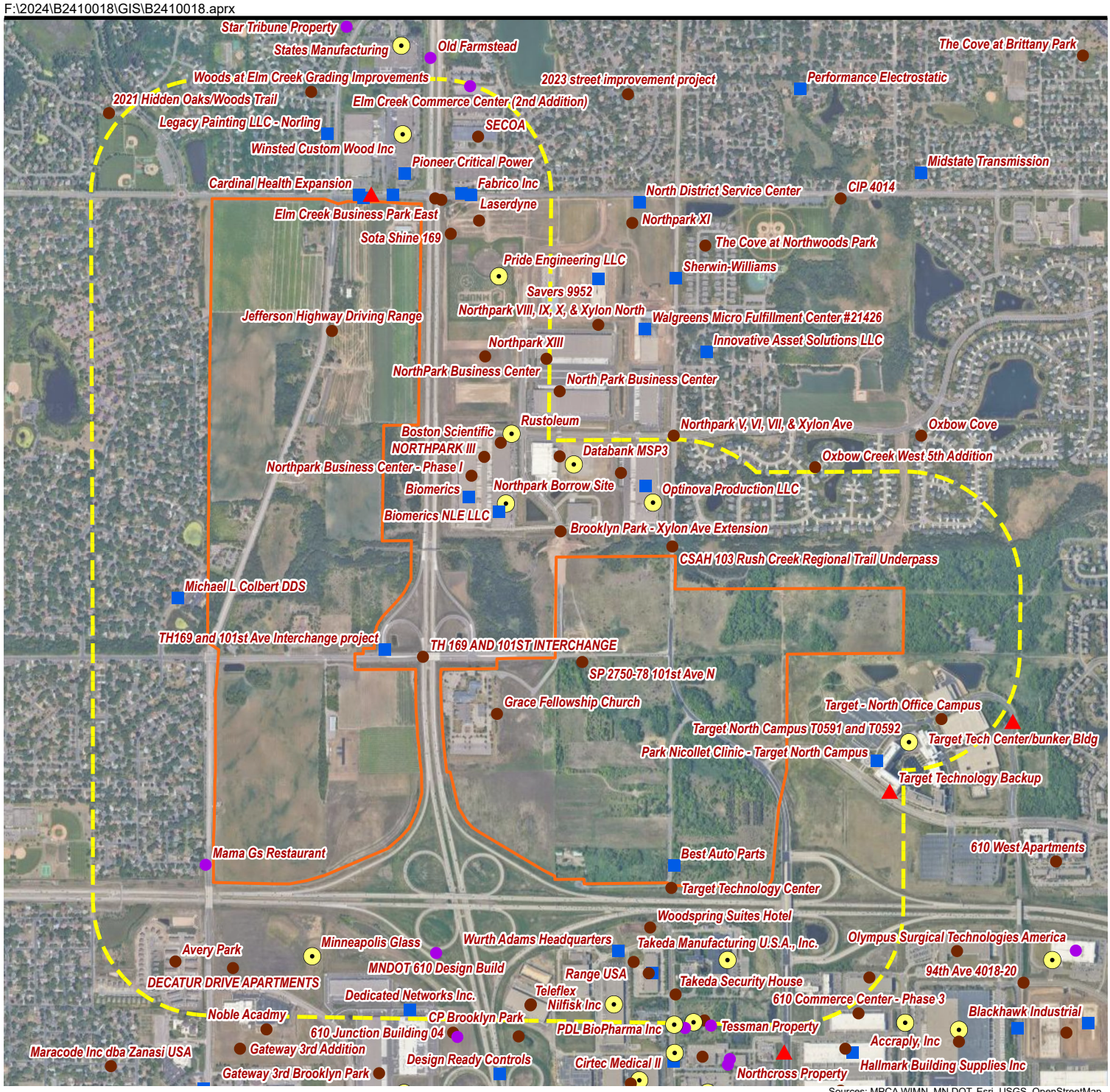
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

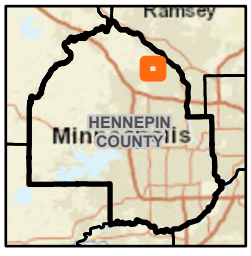
MDH Wells and Wellhead Protection Area

Figure B-5

F:\2024\B2410018\GIS\B2410018.aprx



Sources: MPCA WIMN, MN DOT, Esri, USGS, OpenStreetMap



AUAR Study Area
0.25-Mile Radius

MPCA Sites
- Multiple Programs
- Hazardous Waste
- Investigation and Cleanup
- Stormwater
- Tanks

N

0 800 1,600 Feet

Scale 1" = 1,600'

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Project No: B2410018

Drawing No: FigB-6_MPCA Permitted

Drawn By:	SL
Date Drawn:	11/11/2024
Checked By:	MU
Last Modified:	11/7/2025

Northwest Growth Area Plan

Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

MPCA Permitted Features

Figure B-6

Appendix C. Natural Resources

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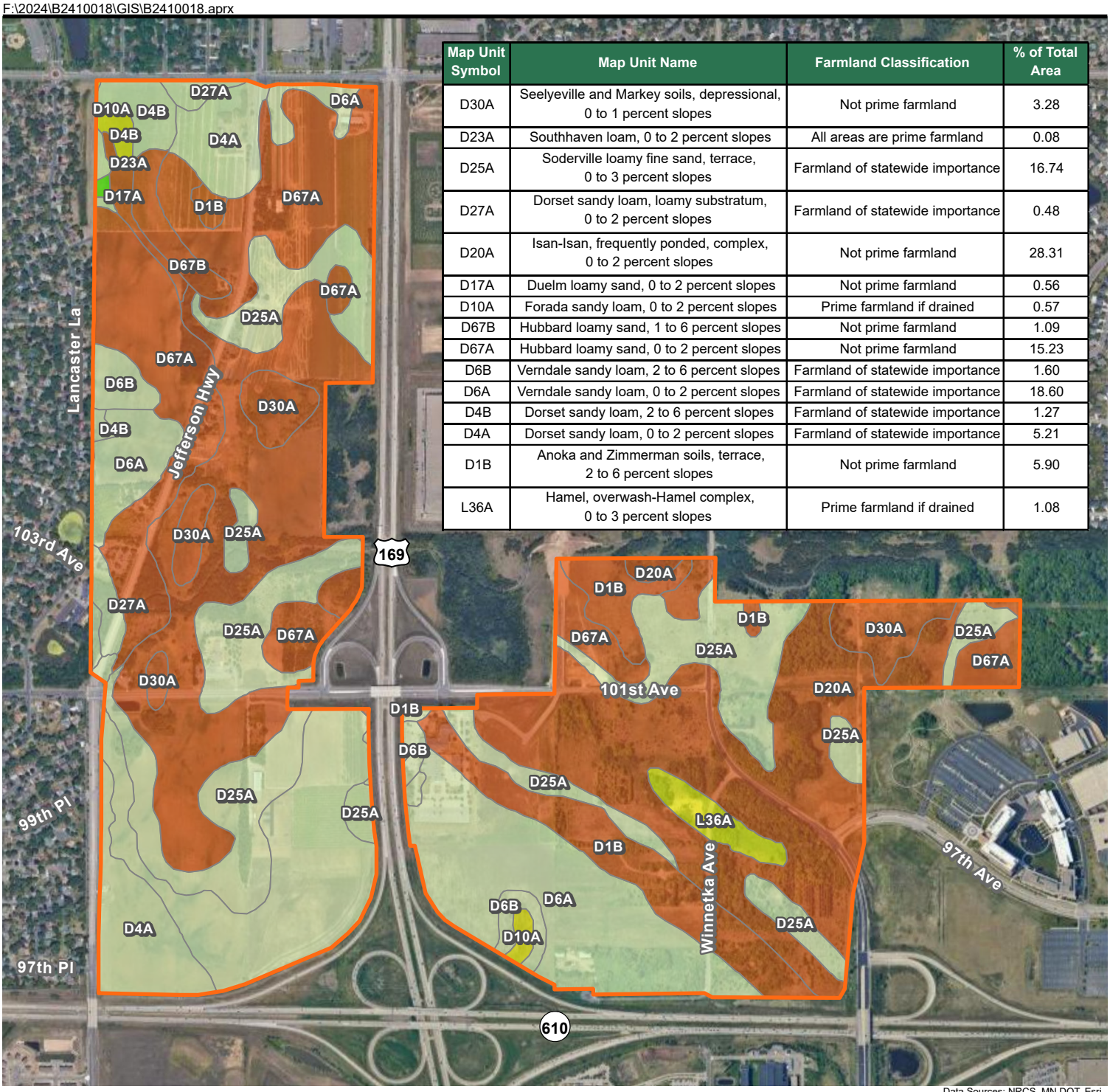

Map Unit Symbol	Map Unit Name	Farmland Classification	% of Total Area
D30A	Seelyeville and Markey soils, depressional, 0 to 1 percent slopes	Not prime farmland	3.28
D23A	Southhaven loam, 0 to 2 percent slopes	All areas are prime farmland	0.08
D25A	Soderville loamy fine sand, terrace, 0 to 3 percent slopes	Farmland of statewide importance	16.74
D27A	Dorset sandy loam, loamy substratum, 0 to 2 percent slopes	Farmland of statewide importance	0.48
D20A	Isan-Isan, frequently ponded, complex, 0 to 2 percent slopes	Not prime farmland	28.31
D17A	Duelm loamy sand, 0 to 2 percent slopes	Not prime farmland	0.56
D10A	Forada sandy loam, 0 to 2 percent slopes	Prime farmland if drained	0.57
D67B	Hubbard loamy sand, 1 to 6 percent slopes	Not prime farmland	1.09
D67A	Hubbard loamy sand, 0 to 2 percent slopes	Not prime farmland	15.23
D6B	Verndale sandy loam, 2 to 6 percent slopes	Farmland of statewide importance	1.60
D6A	Verndale sandy loam, 0 to 2 percent slopes	Farmland of statewide importance	18.60
D4B	Dorset sandy loam, 2 to 6 percent slopes	Farmland of statewide importance	1.27
D4A	Dorset sandy loam, 0 to 2 percent slopes	Farmland of statewide importance	5.21
D1B	Anoka and Zimmerman soils, terrace, 2 to 6 percent slopes	Not prime farmland	5.90
L36A	Hamel, overwash-Hamel complex, 0 to 3 percent slopes	Prime farmland if drained	1.08

Data Sources: NRCS, MN DOT, Esri

AUAR Study Area

Soil Farmland Classification

- All areas are prime farmland
- Farmland of statewide importance
- Prime farmland if drained
- Not prime farmland

N

0 600 1,200 Feet

Scale 1" = 1,200'

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Drawing No: FigC-1_NRCS Soils

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Northwest Growth Area Plan

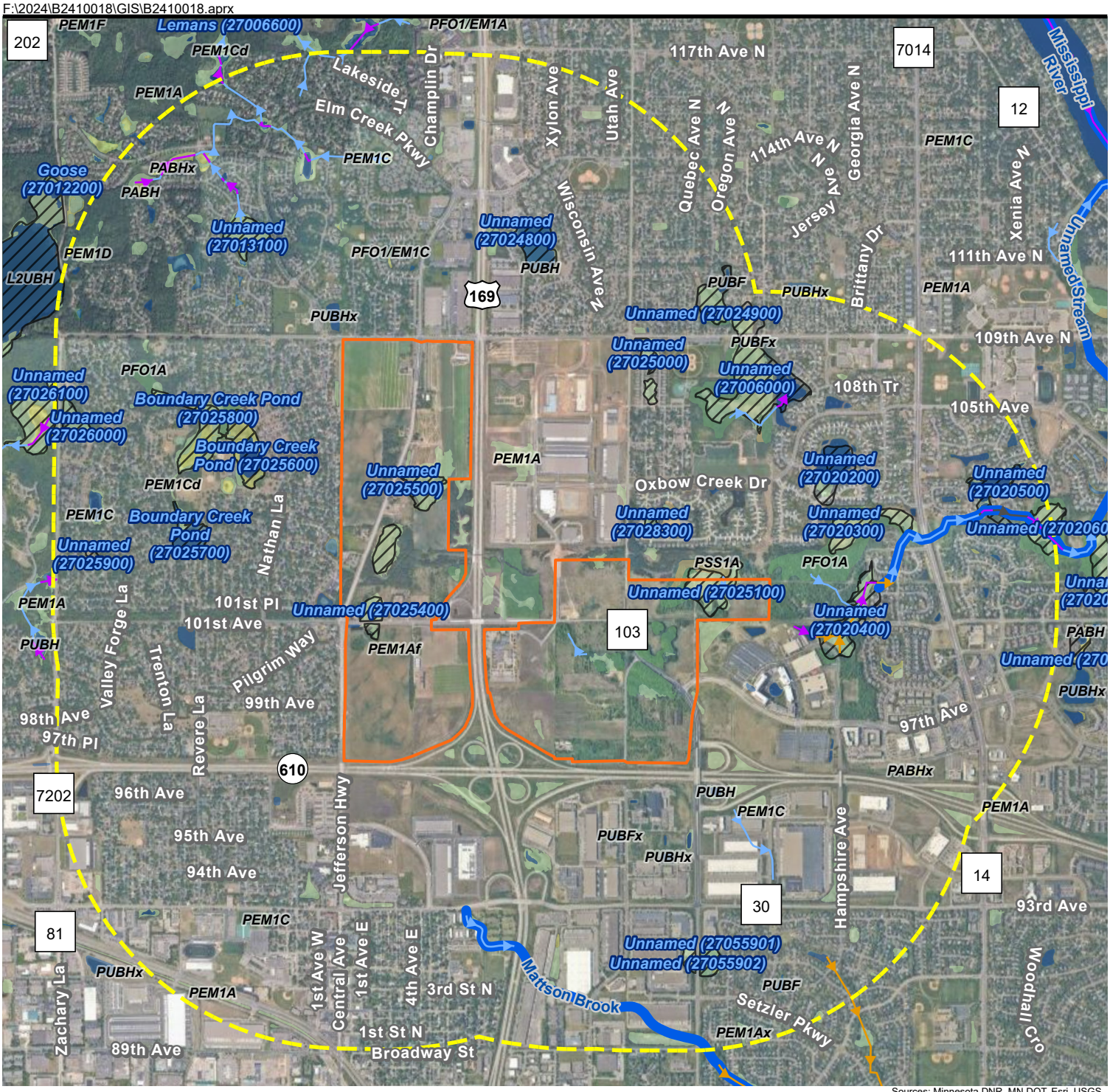
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

County Soil Survey

Figure C-1

F:\2024\B2410018\GIS\B2410018.aprx



Sources: Minnesota DNR, MN DOT, Esri, USGS

AUAR Study Area
1 Mile Radius
MnDNR Public Waters Basins
MnDNR Public Water Watercourse

NWI Cowardin Class
Aquatic Bed/Nonpersistent Emergent
Emergent
Forested
Scrub-Shrub
Unconsolidated Bottom (Open Water)

USGS (NHD) Flowline
Artificial Path
Canal Ditch
Connector
Stream River

N
0 1,300 2,600 Feet
Scale 1" = 2,600'

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Project No: B2410018
Drawing No: FigC-2_Surf Water

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Northwest Growth Area Plan

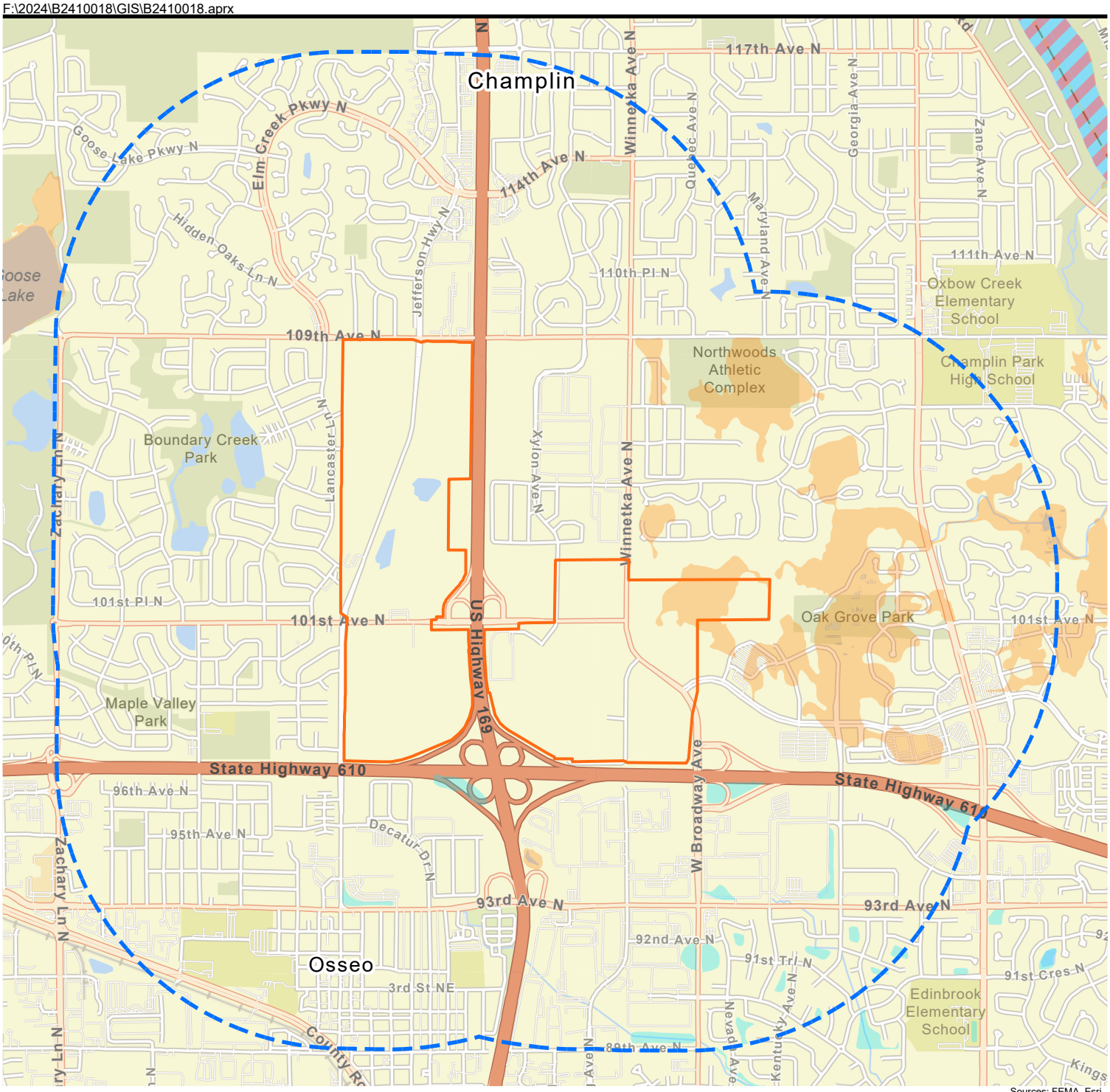
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

Surface Waters

Figure C-2

F:\2024\B2410018\GIS\B2410018.aprx



Sources: FEMA, Esri

AUAR Study Area

1 Mile Radius

Flood Hazard Zones

1% Annual Chance Flood Hazard

Regulatory Floodway

0.2% Annual Chance Flood Hazard

N

0 1,300 2,600 Feet

Scale 1" = 2,600'

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Drawing No: FigC-3_FEMA

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Northwest Growth Area Plan

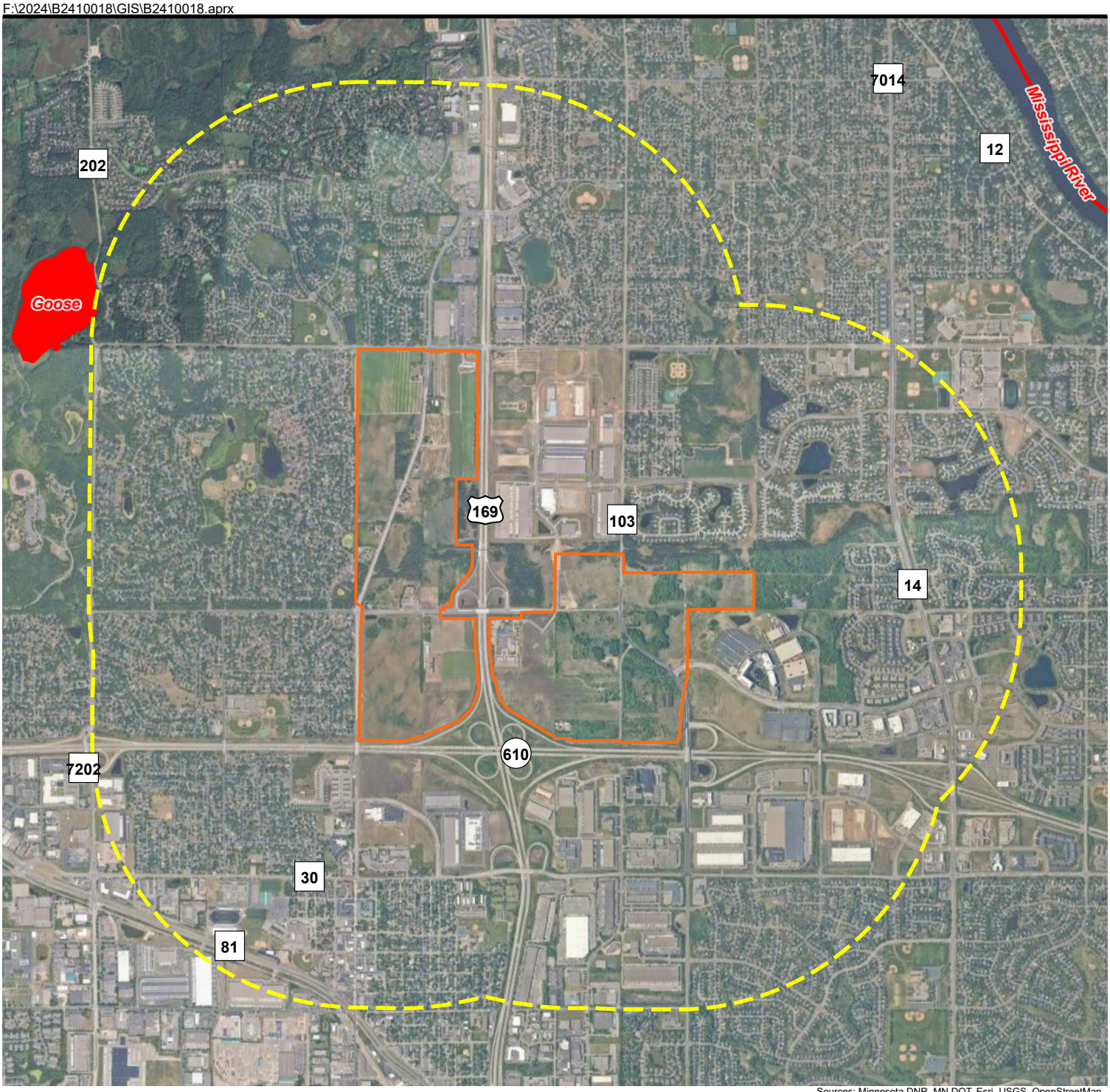
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

FEMA Flood Zones

Figure C-3

F:\2024\B2410018\GIS\B2410018.aprx



Sources: Minnesota DNR, MN DOT, Esri, USGS, OpenStreetMap

AUAR Study Area
1 Mile Radius
MPCA Impaired Stream
MPCA Impaired Lake

N

0 1,400 2,800 Feet

Scale 1" = 2,800'

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Last Modified:	11/7/2025

Northwest Growth Area Plan

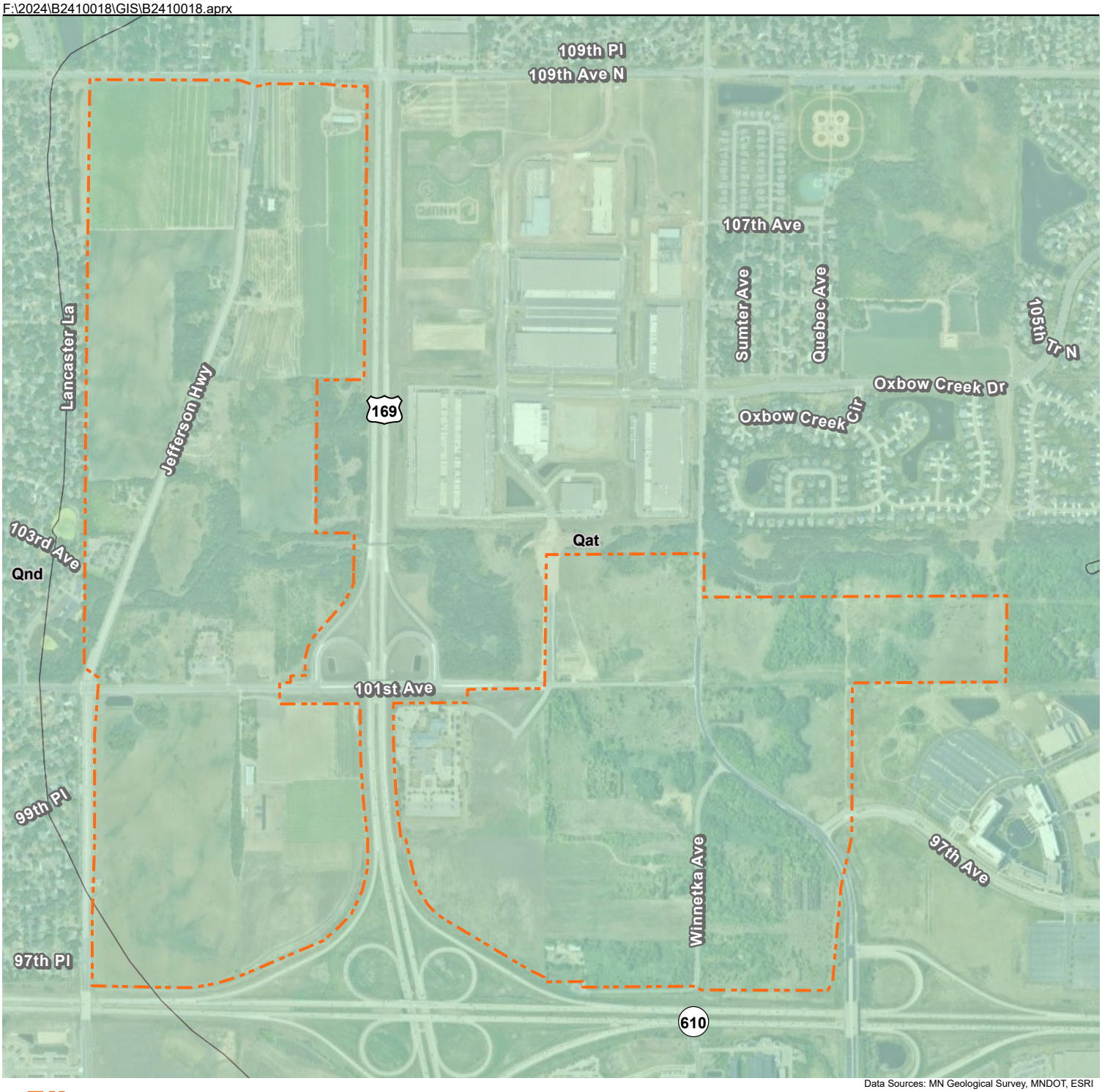
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

Special and Impaired Waters

Figure C-4

F:\2024\B2410018\GIS\B2410018.aprx



Data Sources: MN Geological Survey, MNDOT, ESRI

AUAR Study Area

Surficial Geology (MN Geological Survey)

Sand

N

0 600 1,200 Feet

Scale 1" = 1,200'

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Project No: B2410018

Drawing No: FigC-5_Surf Geo

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Checked By:	MU
Last Modified:	11/7/2025

Northwest Growth Area Plan

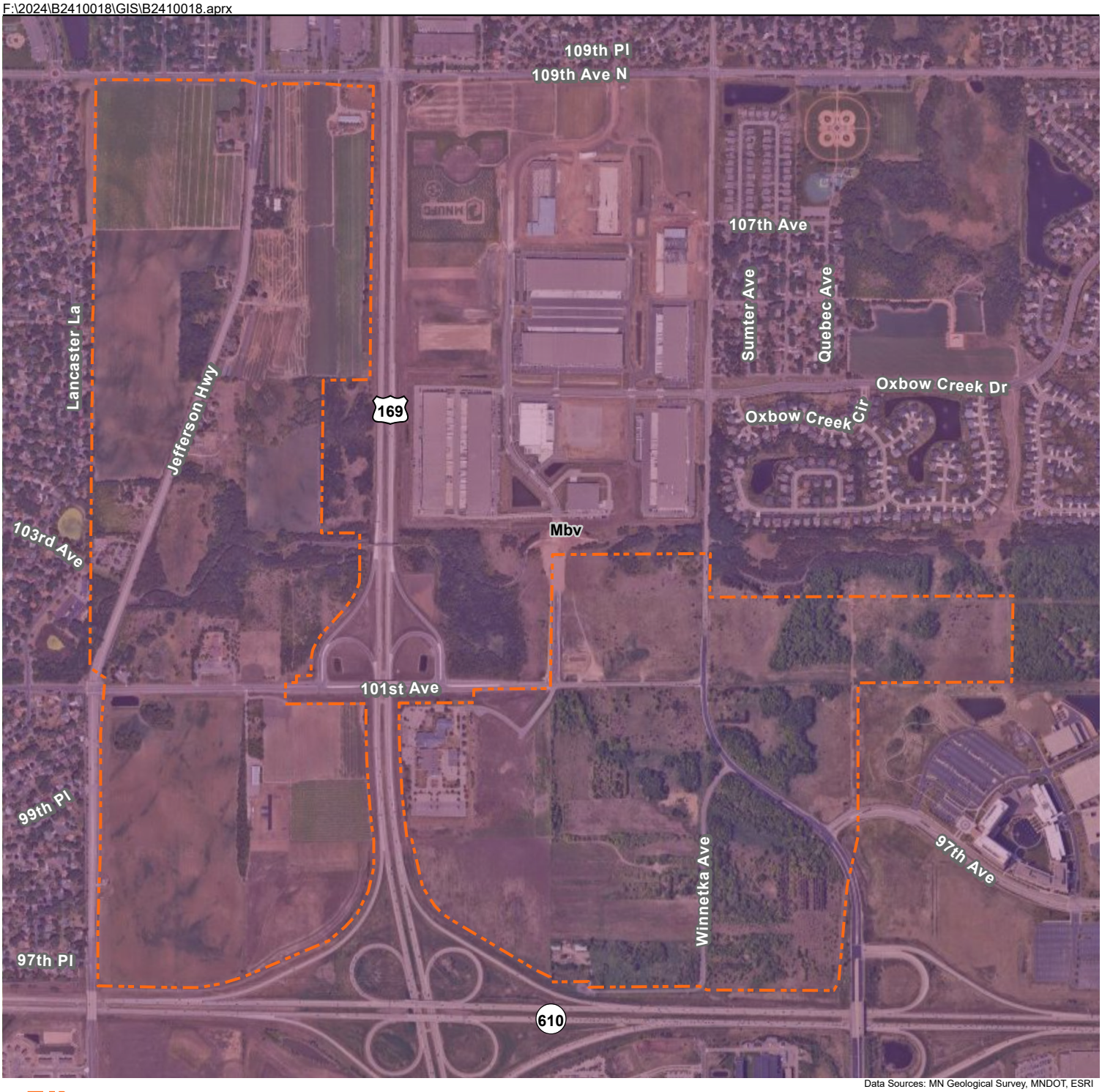
Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

Surficial Geology

Figure C-5

F:\2024\B2410018\GIS\B2410018.aprx



Data Sources: MN Geological Survey, MNDOT, ESRI

AUAR Study Area

Precambrian bedrock

Mbv - North Branch mafic volcanic sequence

N

0 600 1,200 Feet

Scale 1" = 1,200'

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Project No: B2410018

Drawing No: FigC-6_Bedrock Geo

Drawn By:	SL
Date Drawn:	11/12/2024
Checked By:	MU
Last Modified:	11/7/2025

Northwest Growth Area Plan

Brooklyn Park, Minnesota

Brooklyn Park, Minnesota

Bedrock Geology

Figure C-6

DEPARTMENT OF NATURAL RESOURCES

Conservation Planning Report: Northwest Growth Area Plan

This document is intended for planning purposes only for the area of interest defined by the user. The report identifies ecologically significant areas documented within the defined area of interest plus any additional search distance indicated below. These ecologically significant areas can be viewed in the Explore Tab of the Minnesota Conservation Explorer. Please visit MN Geospatial Commons for downloadable GIS data.

This document does not meet the criteria for a Natural Heritage Review. If a Natural Heritage Review is needed, please define an Area of Interest in the Explore Tab and click on the Natural Heritage Review option.

This document does not include known occurrences of state-listed or federally listed species.

MBS Sites of Biodiversity Significance

Search distance = 330 feet

Minnesota Biological Survey (MBS) Sites of Biodiversity Significance are areas with varying levels of native biodiversity that may contain high quality native plant communities, rare plants, rare animals, and/or animal aggregations. A Biodiversity Significance Rank is assigned on the basis of the number of rare species, the quality of the native plant communities, size of the site, and context within the landscape. MBS Sites are ranked Outstanding, High, or Moderate. Areas ranked as Below were found to be disturbed and are retained in the layer as negative data. These areas do not meet the minimum biodiversity threshold for statewide significance but may have conservation value at the local level as habitat for native plants and animals, corridors for animal movements, buffers surrounding higher quality natural areas, or as areas with high potential for restoration of native habitat. The DNR recommends avoidance of MBS Sites of Biodiversity Significance ranked High or Outstanding.

Wetlands within MBS Sites of Outstanding or High Biodiversity Significance may be considered Rare Natural Communities under the Wetland Conservation Act. For technical guidance on Rare Natural Communities, please visit WCA Program Guidance and Information.

For more information please visit MBS Sites of Biodiversity Significance.

SEARCH RESULTS: No features were found within the search area.

DNR Native Plant Communities

Search distance = 330 feet

A native plant community is a group of native plants that interact with each other and with their environment in ways not greatly altered by modern human activity or by introduced organisms. These groups of native plant species form recognizable units, such as oak savannas, pine forests, or marshes, that tend to repeat over space and time. Native plant communities are classified and described by considering vegetation, hydrology, landforms, soils, and natural disturbance regimes.

DNR Native Plant Community types and subtypes are given a Conservation Status Rank that reflects the relative rarity and endangerment of the community type in Minnesota. Conservation Status Ranks range from S1 (critically imperiled) to S5 (secure, common, widespread, and abundant). Native plant communities with a Conservation Status Rank of S1 through S3 are considered rare in the state. The DNR recommends avoidance of rare native plant communities.

Wetland native plant communities with a conservation status rank of S1 through S3 may also be considered Rare Natural Communities under the Wetland Conservation Act. For technical guidance on Rare Natural Communities, please visit WCA Program Guidance and Information.

DNR Native Plant Communities may be given a Condition Rank that reflects the degree of ecological integrity of a specific occurrence of a native plant community. The Condition Rank is based on species composition, vegetation structure, ecological processes and functions, level of human disturbance, presence of exotic species, and other factors. Condition Ranks range from A-rank (excellent ecological integrity) to D-rank (poor ecological integrity. A Condition Rank of NR means Not Ranked and a Condition Rank of MULTI mean multiple ranks are present because the record is a native plant community complex.

For more information please visit Minnesota's Native Plant Communities.

SEARCH RESULTS: No features were found within the search area.

Calcareous Fens

Search distance = 5 miles

A calcareous fen is a rare and distinctive peat-accumulating wetland that is legally protected in Minnesota under the Wetland Conservation Act (*Minnesota Statutes*, section 103G.223). Many of the unique characteristics of calcareous fens result from the upwelling of groundwater through calcareous substrates. Because of this dependence on groundwater hydrology, calcareous fens can be affected by nearby activities or even those several miles away. For more information regarding calcareous fens, please see the Calcareous Fen Fact Sheet or review the List of Known Calcareous Fens.

SEARCH RESULTS: No features were found within the search area.

DNR Old Growth Stands

Search distance = 330 feet

Old-growth forests are natural forests that have developed over a long period of time, generally at least 120 years, without experiencing severe, stand-replacing disturbances such as fires, windstorms, or logging. Old-growth forests are a unique, nearly vanished piece of Minnesota's history and ecology; less than 4% of Minnesota's old-growth forests remain. The DNR recommends avoidance of all DNR Old Growth Stands. The following DNR Old Growth Stands have been documented within the search area.

SEARCH RESULTS: No features were found within the search area.

MN Prairie Conservation Plan

Search distance = 330 feet

The Minnesota Prairie Conservation Plan, a twenty-five year strategy for accelerating prairie conservation in the state, identifies Core Areas, Corridors, and Corridor Complexes as areas to focus conservation efforts. The Plan's strategies include protection, enhancement, and restoration of grassland and wetland habitat. To meet the Plan's goals, approaches within Core Areas will need to include restoration and approaches within Corridors will need to include conservation of grassland habitat which can provide stepping stones between larger Core Areas.

SEARCH RESULTS: No features were found within the search area.

Important Bird Areas

Search distance = 1 mile

Important Bird Areas, identified by Audubon Minnesota in partnership with the DNR, are part of an international conservation effort aimed at conserving globally important bird habitats. They are voluntary and non-regulatory, but the designation demonstrates the significant ecological value of the area.

SEARCH RESULTS: No features were found within the search area.

Lakes of Biological Significance

Search distance = 330 feet

Lakes of Biological Significance are high quality lakes as determined by the aquatic plant, fish, bird, or amphibian communities present within the lake. To be included in this layer, a lake only needs to meet the criteria for one of these four community types. The lake is assigned a biological significance of Outstanding, High, or Moderate based on the community with the highest quality.

SEARCH RESULTS: No features were found within the search area.

USFWS Habitat Conservation Plans

A Habitat Conservation Plan (HCP) is a mechanism for compliance with the federal Endangered Species Act for a given set of activities and protected species. An HCP is required by the U.S. Fish and Wildlife Service (USFWS) as part of an application for an incidental take permit (ITP). The ITP allows the permit holder to proceed with activities covered in the HCP that could result in the unintentional take of federally listed species.

Lakes States Forest Management Bat Habitat Conservation Plan (Bat HCP): (search distance = 0; within area of interest only) This HCP was created to provide flexibility to the Minnesota Department of Natural Resources (DNR) to manage forests while addressing federal Endangered Species Act (ESA) regulations related to federally threatened and endangered bat species. The Bat HCP covers three bat species within Minnesota: northern long-eared bat, little brown bat, and tricolored bat. This report is intended to help non-federal, non-DNR landowners evaluate their potential eligibility for the Landowner Enrollment Program of the Bat HCP (For DNR-administered land, DNR staff should refer to the Bat HCP Implementation Policy).

Landowner Enrollment Program – DNR's incidental take permit may be extended through the Landowner Enrollment Program (LEP) to eligible non-federal landowners who conduct forest management activities. Landowners may be eligible to enroll in the LEP if they are a county land administrator, own more than 10,000 acres, or own land that overlaps a Bat HCP feature. The results below indicate if the defined area of interest overlaps a Bat HCP feature. For more information on how to enroll in the LEP, please visit the Landowner Enrollment Program (LEP).

SEARCH RESULTS: No Bat HCP features were found within the area of interest. Landowners are only eligible to apply for the Landowner Enrollment Program if they are a county land administrator or they own more than 10,000 acres.

USFWS Regulatory Layers

To ensure compliance with federal law, conduct a federal regulatory review using the U.S. Fish and Wildlife Service's (USFWS) online Information for Planning and Consultation (IPaC) tool. This report is not a substitution for a Section 7 review.

For informational purposes only, this tool currently checks the following USFWS Regulatory Layers:

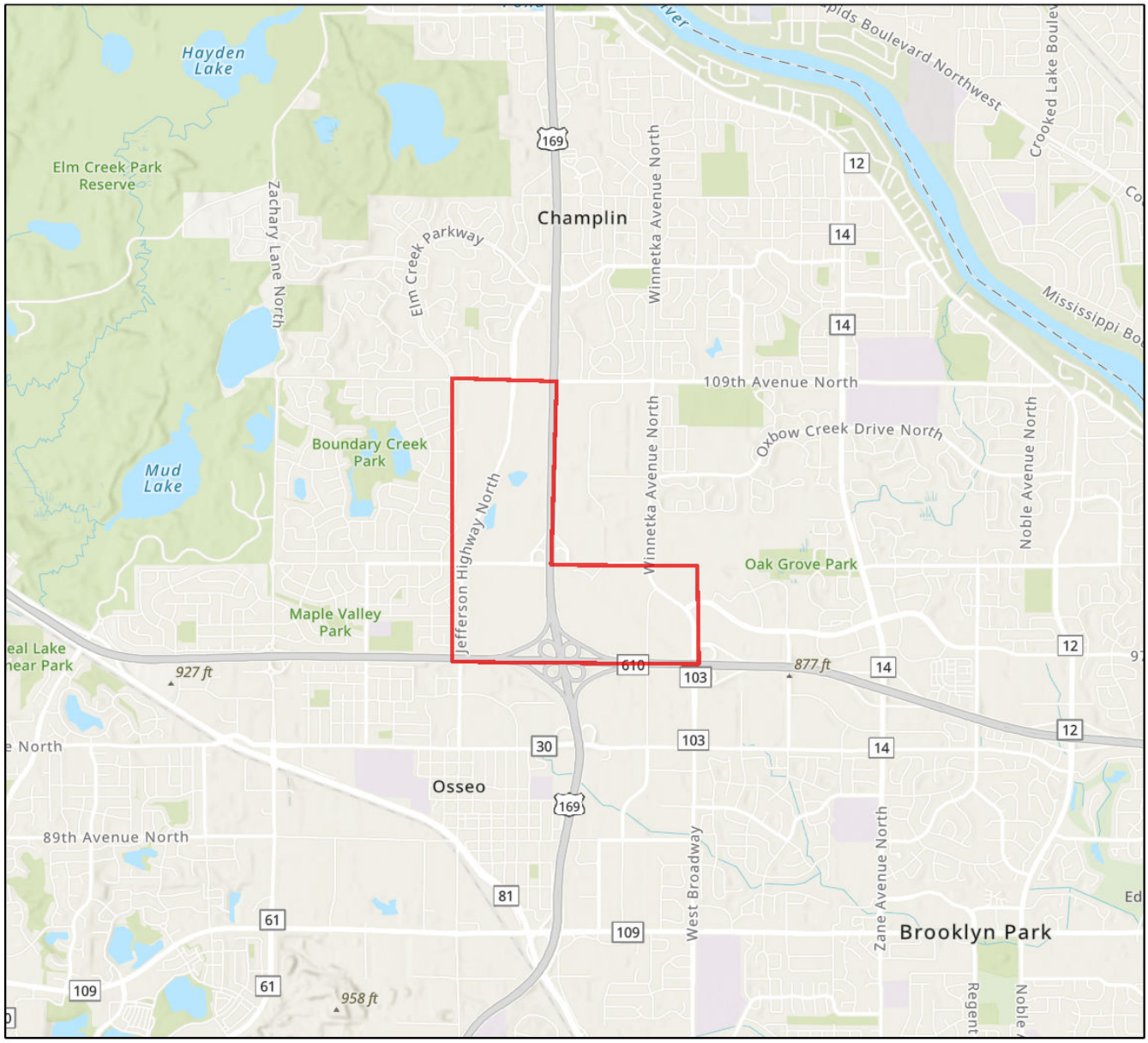
Rusty Patched Bumblebee High Potential Zones: (*search distance = 0; within area of interest only*) The rusty patched bumble bee (*Bombus affinis*), federally listed as endangered, is likely to be present in suitable habitat within the high potential zones. From April through October this species uses underground nests in upland grasslands, shrublands, and forest edges, and forages where nectar and pollen are available. From October through April the species overwinters under tree litter in upland forests and woodlands. The rusty patched bumble bee may be impacted by a variety of land management activities including, but not limited to, prescribed fire, tree-removal, haying, grazing, herbicide use, pesticide use, land-clearing, soil disturbance or compaction, or use of non-native bees. The USFWS RPBB guidance provides guidance on avoiding impacts to rusty patched bumble bee and a key for determining if actions are likely to affect the species; the determination key can be found in the appendix. Please visit the USFWS Rusty Patched Bumble Bee Map for the most current locations of High Potential Zones.

The following USFWS Regulatory Species are within the search area:

- Rusty Patched Bumble Bee High Potential Zone

Northwest Growth Area Plan

Conservation Planning Map



N
W E
S

0 0.33 0.65 1.3 1.95 2.6 Miles

Area of Interest

Size (acres): 781.23

County(s): Hennepin

Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
Metropolitan Council, MetroGIS, Three Rivers Park District, MN Dept Natural Resources, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/

Exhibit C-8. USFWS IPaC

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
Phone: (952) 858-0793

In Reply Refer To: 01/16/2026 13:04:06 UTC
Project Code: 2025-0118152
Project Name: Northwest Growth Area Plan AUAR

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

Threatened and Endangered Species
The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance
Please refer to refer to our Section 7 website for guidance and technical assistance, including step-by-step instructions for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A demonstration video showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of “no effect” or “may affect, not likely to adversely affect." In each case, the Service has compiled and analyzed the best available information on the species’ biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a “Not Likely to Adversely Affect” (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a “May Affect” determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for “May Affect” determinations unless otherwise indicated in your output letter.

Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review. If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain Life History Information for Listed and Candidate Species on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

Northern Long-Eared Bats
Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥3 inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected. For bat activity dates, please review Appendix L in the Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC

species list report for your records.

If any of the above activities are proposed, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the northern long-eared bat and tricolored bat range-wide D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys helps to determine if prohibited take might occur and, if not, will generate an automated verification letter. Additional information about available tools can be found on the Service's northern long-eared bat website.

Whooping Crane
Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States."

Other Trust Resources and Activities
Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. It is the responsibility of the project proponent to survey the area for any migratory bird nests. If there is an eagle nest on-site while work is on-going, eagles may be disturbed. We recommend avoiding and minimizing disturbance to eagles whenever practicable. If you cannot avoid eagle disturbance, you may seek a permit. A nest take permit is always required for removal, relocation, or obstruction of an eagle nest. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed voluntary guidelines for minimizing impacts.

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to guidelines developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's Wind Energy Guidelines. In addition, please refer to the Service's Eagle Conservation Plan Guidance, which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

State Department of Natural Resources Coordination
While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. **Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.**

Minnesota
Minnesota Department of Natural Resources - Endangered Resources Review Homepage
Email: Review.NHIS@state.mn.us

Wisconsin
Wisconsin Department of Natural Resources - Endangered Resources Review Homepage
Email: DNRERReview@wi.gov

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
(952) 858-0793

PROJECT SUMMARY

Project Code: 2025-0118152
Project Name: Northwest Growth Area Plan AUAR
Project Type: Mixed-Use Construction
Project Description: Environmental review for future area development
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@45.146258700000004,-93.39722804828608,14z

Counties: Hennepin County, Minnesota

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

CLAMS

NAME	STATUS
Salamander Mussel *Simpsonaias ambigua* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Rusty Patched Bumble Bee *Bombus affinis* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9383 General project design guidelines: https://ipac.ecosphere.fws.gov/project/QA3LY5TS5RE6PDSSIUQ6DJV5WM/documents/generated/9225.pdf	Endangered
Western Regal Fritillary *Argynnis idalia occidentalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/12017	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/ activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information

on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

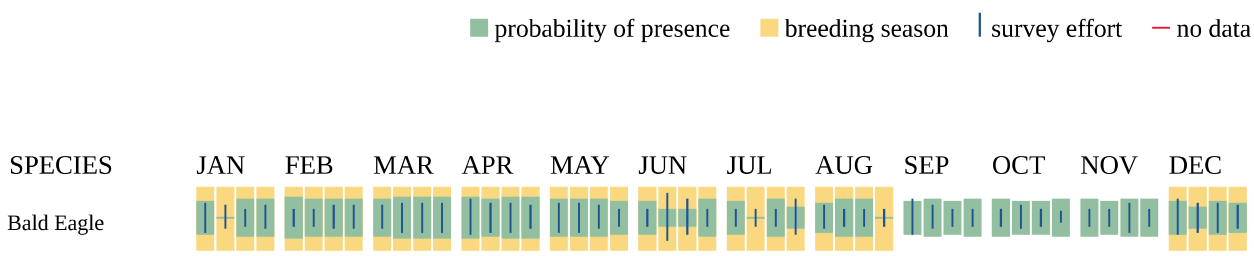
Probability of Presence (▪)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Non-BCC
Vulnerable

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover *Pluvialis dominica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
Black Tern *Chlidonias niger surinamenisis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Golden-winged Warbler *Vermivora chrysoptera* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Grasshopper Sparrow *Ammodramus savannarum perpallidus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Le Conte's Sparrow *Ammospiza leconteii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9469	Breeds Jun 1 to Aug 15
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Long-eared Owl *asio otus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15

NAME	BREEDING SEASON
Pectoral Sandpiper *Calidris melanotos* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Ruddy Turnstone *Arenaria interpres morinella* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10633	Breeds elsewhere
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Semipalmated Sandpiper *Calidris pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9603	Breeds elsewhere
Western Grebe *aechmophorus occidentalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1Ax
- PEM1A
- PEM1C
- PEM1Af
- PEM1F

RIVERINE

- R5UBH

FRESHWATER POND

- PUBH
- PUBHx

FRESHWATER FORESTED/SHRUB WETLAND

- PSS1A
- PFO1A

IPAC USER CONTACT INFORMATION

Agency: Braun Intertec
Name: Megan Ullery-Brux
Address: 11001 Hampshire Ave S
City: Minneapolis
State: MN
Zip: 55438
Email mullery@braunintertec.com
Phone: 9528074611

Appendix D. Studies, Reports, and Approvals

Exhibit D-1. Threatened and Endangered Species Habitat and Determination Table-To be included in the Draft AUAR
Exhibit D-2. State Historic Preservation Office (SHPO) Response (February 26, 2025)

BRAUN INTERTEC

DEPARTMENT OF ADMINISTRATION
STATE HISTORIC PRESERVATION OFFICE

February 26, 2025

Megan Ullery-Brux
Staff Scientist
Braun Intertec Corporation
mullery@braunintertec.com

RE: Brooklyn Park NW Area AUAR
T119 R21 S6 & S7, Brooklyn Park, Hennepin County
SHPO Number: 2025-0417

Dear Megan Ullery-Brux:

Thank you for consulting with our office during the preparation of the Brooklyn Park NW Area Alternative Urban Areawide Review. We understand that the City of Brooklyn Park is proposing the development of several parcels within the city.

Based on a review of our statewide inventory and historical aerial imagery, we recommend that an archaeological assessment (Phase Ia) be conducted to aid in planning for the proposed development. There appear to be several inventoried properties in the Minnesota Statewide Historic Inventory Portal (MnSHIP) that are no longer extant and were likely razed or modified as a result of the construction of State Highway 610. These properties may now be historical archaeological sites. We also note that large portions of the study area appear to have some level of ground disturbance.

An archaeological assessment (Phase Ia) of the proposed development area will help determine whether the development has the potential to affect known or suspected archaeological sites. We recommend that the assessment provide a description of previously disturbed areas and whether or not there is the potential for intact and significant archaeological sites to be located in those areas considering any prior ground disturbance (i.e. whether the disturbance is surficial, and an intact site could be preserved below it, or whether the disturbance has precluded the potential for an intact site).

If, as a result of the assessment, a Phase I archaeological survey is recommended, we recommend that this survey be completed. A Phase I archaeological survey will provide information regarding whether any significant archaeological sites are located within the proposed development area. Any Phase Ia or Phase I studies should be developed and structured to best inform the development's effects on archaeological resources. For a list of consultants who have expressed an interest in undertaking such surveys, please visit the website **https://www.mnhs.org/preservation/directory**, and select "Archaeologists" in the "Specialties" box.

Based on the information provided, we have determined there are no properties listed in the National or State Registers of Historic Places, or within the Historic Sites Network, located in the proposed development area.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36 CFR § 800. If a proposed development project will use federal funds or will require a federal permit (such as a USACE 404 permit), it may be subject to review under Section 106 of the National Historic Preservation Act. If the project becomes a federal undertaking, additional consultation between the federal agency and the SHPO will be necessary in order to define an appropriate area of potential effect (APE) for the federal undertaking as well as the necessary historic property identification and evaluation efforts required for a federal review, and this information will be helpful to help the project move forward.

Please contact Kelly Gragg-Johnson, Environmental Review Specialist, at (651) 201-3285 or kelly.graggjohnson@state.mn.us if you have any questions regarding our review of this project.

Sincerely,

Amy Spong
Deputy State Historic Preservation Officer

Outlook

RE: SHPO No 2025-0417 : Brooklyn Park NW Area AUAR-Review Request

From GraggJohnson, Kelly (ADM) <kelly.graggjohnson@state.mn.us>
Date Tue 7/8/2025 9:40 AM
To Ullery-Brux, Megan <MUllery@braunintertec.com>

1 attachment (141 KB)
2025-0417 SHPO letter 2-26-25.pdf;

Hi Megan – Our comments as stated in our 2/26/25 letter (attached) still apply for the expanded AUAR boundaries.

Thanks,

Kelly

DEPARTMENT OF ADMINISTRATION
STATE HISTORIC PRESERVATION OFFICE

Kelly Gragg-Johnson (she/her/hers) **| Environmental Review Specialist**
50 Sherburne Avenue, Suite 203
Saint Paul, MN 55155
(651) 201-3285 | kelly.graggjohnson@state.mn.us

-

From: Ullery-Brux, Megan <MUllery@braunintertec.com>
Sent: Monday, July 7, 2025 9:23 AM
To: GraggJohnson, Kelly (ADM) <kelly.graggjohnson@state.mn.us>
Subject: Re: SHPO No 2025-0417 : Brooklyn Park NW Area AUAR-Review Request

Good Morning,
This project has expanded its boundaries (see linked below). Can we please have an updated review?

Fig3_USGS_Topo 1.pdf
Fig2_StudyAreaBoundary 1.pdf

Thank you!

Megan Ullery-Brux
Braun Intertec
c. 952.807.4611
mullery@braunintertec.com

From: GraggJohnson, Kelly (ADM) <kelly.graggjohnson@state.mn.us>
Sent: Wednesday, February 26, 2025 11:20 AM
To: Ullery-Brux, Megan <MUllery@braunintertec.com>
Subject: SHPO No 2025-0417 : Brooklyn Park NW Area AUAR-Review Request

Hi Megan – here is the SHPO comment letter for this project.

Thanks,

Kelly

DEPARTMENT OF ADMINISTRATION
STATE HISTORIC PRESERVATION OFFICE

Kelly Gragg-Johnson (she/her/hers) **| Environmental Review Specialist**
50 Sherburne Avenue, Suite 203
Saint Paul, MN 55155
(651) 201-3285 | kelly.graggjohnson@state.mn.us

From: Ullery-Brux, Megan <MUllery@braunintertec.com>
Sent: Thursday, January 9, 2025 11:07 AM
To: MN_ADM_ENV Review SHPO <ENReviewSHPO@state.mn.us>
Subject: Brooklyn Park NW Area AUAR-Review Request

Good Morning,
Please see attached for the review request for an AUAR located in Brooklyn Park, Hennepin County, MN.

Thanks,

Megan Ullery-Brux

Staff Scientist

11001 Hampshire Avenue South | Minneapolis, MN 55438
952-807-4611 | mullery@braunintertec.com

braunintertec.com |Twitter: Braun Intertec | LinkedIn: Braun Intertec

Appendix E. Minnesota Climate Data Explorer and Greenhouse Gas Emissions

Exhibit E-1. Hennepin County Climate Data
Exhibit E-2. Greenhouse Gas Emissions-To be included in the Draft AUAR

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Exhibit E-1. Hennepin County Climate Data

Exhibit E-1a: Past Average Temperature Trend

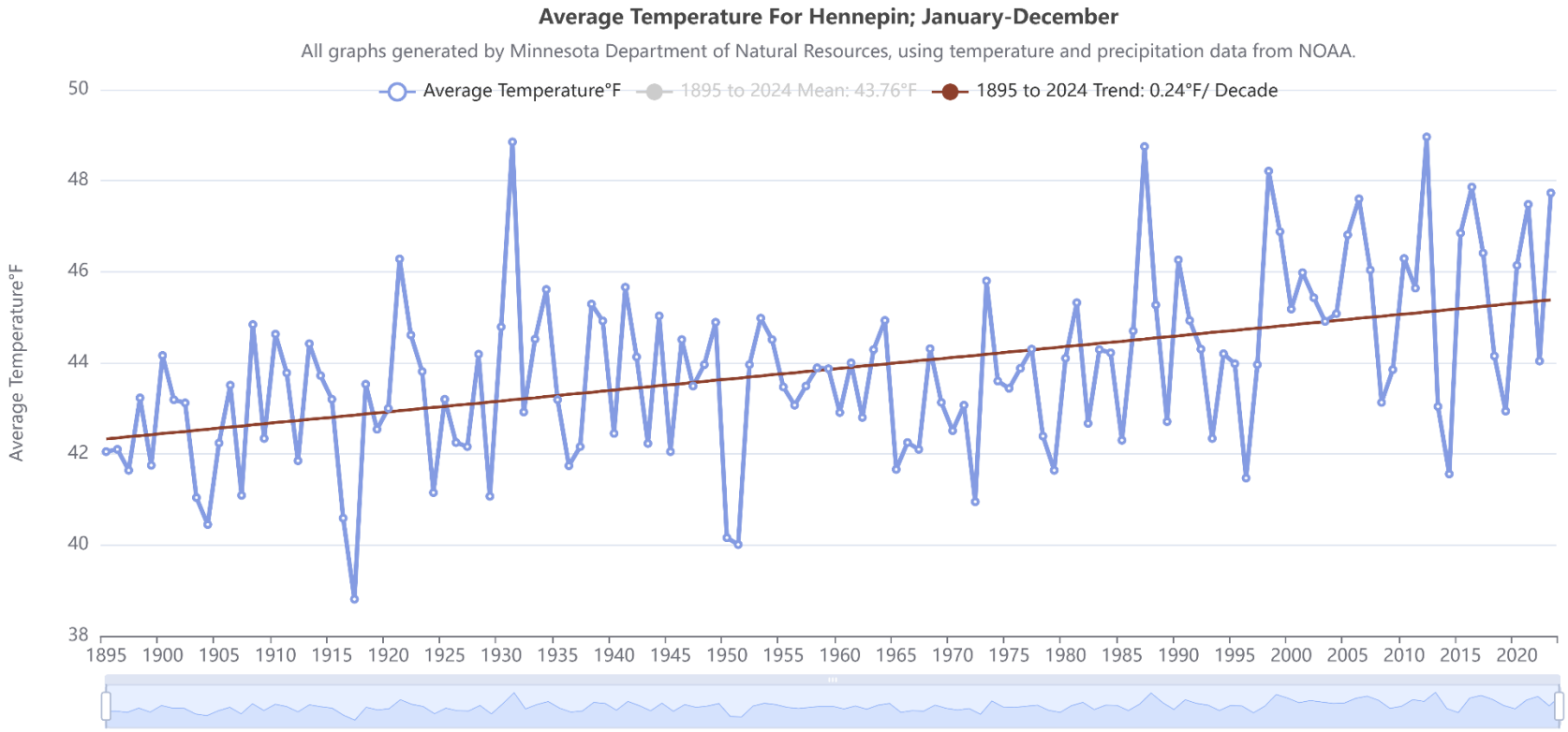


Exhibit E-1b: Past Annual Average Precipitation Trend

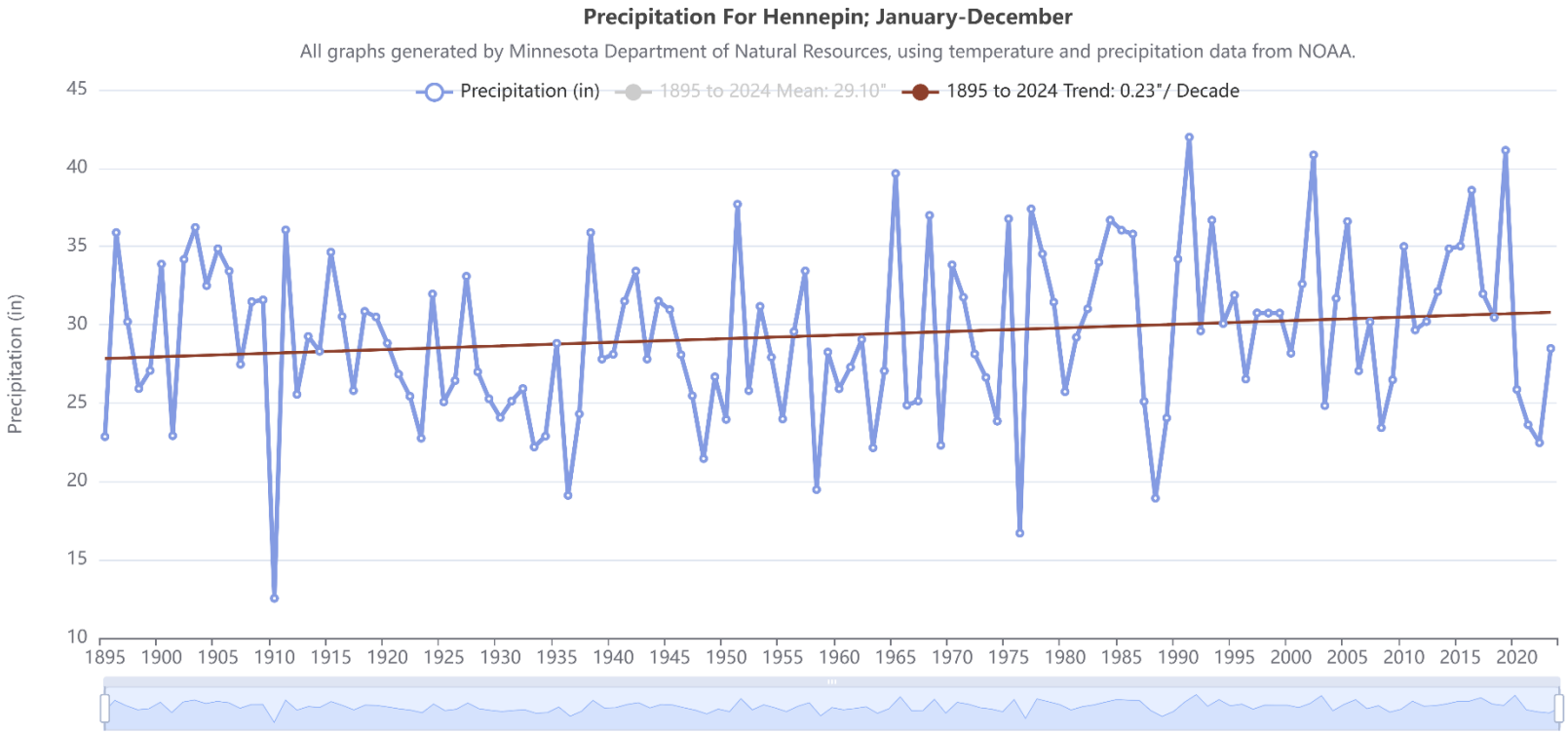


Exhibit E-1c: Project Extreme Heat

Hennepin County, Minnesota

Total Population
1,245,837

% Population with Income Below Poverty
10%

Building Codes Hazard Resistance
Lower Resistance

% Population Disadvantaged
15.47%

National Risk Index Rating
Relatively High
Source: FEMA National Risk Index

Billion-Dollar Weather and Climate Disasters

U.S. Climate Resilience Toolkit

Source: Census Bureau, CEQ, Esri, FEMA, MRLC, NOAA, UCSD

Future Climate Indicators

Indicator	Modeled History (1976 - 2005)	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Century (2070 - 2099)	
		Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions
	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max
Temperature thresholds:							
Annual days with maximum temperature > 90°F	**8 days** 8 - 11	**25 days** 9 - 43	**27 days** 12 - 45	**34 days** 12 - 61	**42 days** 15 - 71	**44 days** 16 - 78	**71 days** 29 - 100
Annual days with maximum temperature > 95°F	**2 days** 1 - 2	**7 days** 1 - 15	**8 days** 2 - 19	**12 days** 2 - 28	**18 days** 3 - 40	**19 days** 4 - 47	**42 days** 8 - 79
Annual days with maximum temperature > 100°F	**0 days** 0 - 0	**1 days** 0 - 4	**1 days** 0 - 4	**3 days** 0 - 8	**5 days** 1 - 16	**5 days** 0 - 8	**20 days** 1 - 57
Annual days with maximum temperature > 105°F	**0 days** 0 - 0	**0 days** 0 - 0	**0 days** 0 - 1	**0 days** 0 - 1	**1 days** 0 - 3	**1 days** 0 - 6	**6 days** 0 - 26
Annual temperature:							
Annual single highest maximum temperature °F	**95 °F** 94 - 97	**99 °F** 95 - 102	**99 °F** 96 - 103	**101 °F** 96 - 105	**102 °F** 96 - 107	**102 °F** 98 - 111	**107 °F** 100 - 112
Annual highest maximum temperature averaged over a 5-day period °F	**90 °F** 89 - 91	**94 °F** 90 - 98	**94 °F** 91 - 97	**95 °F** 91 - 99	**97 °F** 91 - 101	**97 °F** 92 - 103	**102 °F** 95 - 108
Cooling degree days (CDD)	**682 degree-days** 621 - 728	**1,001 degree-days** 714 - 1,320	**1,043 degree-days** 841 - 1,278	**1,173 degree-days** 753 - 1,600	**1,333 degree-days** 946 - 1,748	**1,372 degree-days** 856 - 1,945	**1,959 degree-days** 1,284 - 2,710

N/A = Data Not Available for the selected area

Exhibit E-1d: Projected Flooding Risk

Hennepin County, Minnesota

Total Population
1,245,837

% Population with Income Below Poverty
10%

Building Codes Hazard Resistance
Lower Resistance

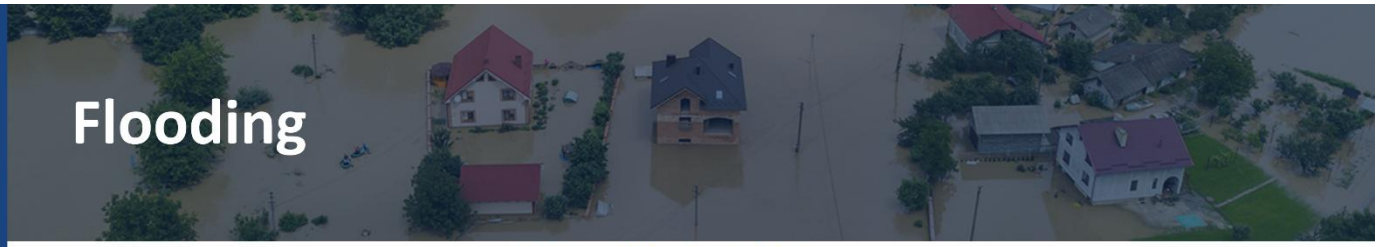
% Population Disadvantaged
15.47%

National Risk Index Rating
Relatively Moderate
Source: FEMA National Risk Index

Billion-Dollar Weather and Climate Disasters

U.S. Climate Resilience Toolkit

Source: Census Bureau, CEQ, Esri, FEMA, MRLC, NOAA, UCSD



Future Climate Indicators

Indicator	Modeled History (1976 - 2005)	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Century (2070 - 2099)	
		Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions
	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max
Precipitation:							
Annual average total precipitation	**30"** 29 - 32	**32"** 28 - 34	**32"** 28 - 35	**32"** 28 - 37	**32"** 27 - 37	**32"** 28 - 37	**33"** 28 - 40
Days per year with precipitation (wet days)	**156 days** 153 - 160	**156 days** 143 - 164	**155 days** 142 - 163	**155 days** 145 - 164	**154 days** 139 - 165	**155 days** 144 - 167	**153 days** 128 - 173
Maximum period of consecutive wet days	**10 days** 9 - 13	**11 days** 9 - 14	**10 days** 9 - 12	**10 days** 9 - 14	**10 days** 9 - 13	**10 days** 9 - 14	**10 days** 9 - 12
Annual days with:							
Annual days with total precipitation > 1inch	**4 days** 3 - 4	**4 days** 3 - 5	**4 days** 3 - 6	**4 days** 3 - 5	**4 days** 3 - 6	**4 days** 3 - 6	**5 days** 3 - 7
Annual days with total precipitation > 2 inches	**0 days** 0 - 0	**0 days** 0 - 0	**0 days** 0 - 1	**0 days** 0 - 1	**0 days** 0 - 1	**0 days** 0 - 1	**1 days** 0 - 1
Annual days with total precipitation > 3 inches	**0 days** 0 - 0	**0 days** 0 - 0	**0 days** 0 - 0	**0 days** 0 - 0	**0 days** 0 - 0	**0 days** 0 - 0	**0 days** 0 - 0
Annual days that exceed 99th percentile precipitation	**5 days** 4 - 6	**6 days** 5 - 7	**6 days** 5 - 7	**6 days** 5 - 7	**6 days** 6 - 7	**6 days** 5 - 7	**7 days** 6 - 8
Days with maximum temperature below 32 °F	**74 days** 69 - 77	**60 days** 44 - 78	**59 days** 47 - 73	**54 days** 38 - 72	**51 days** 33 - 70	**48 days** 29 - 69	**34 days** 16 - 60

N/A = Data Not Available for the selected area

Exhibit E-1e: Projected Drought Risks

Hennepin County, Minnesota

Total Population
1,245,837

% Population with Income Below Poverty
10%

Building Codes Hazard Resistance
Lower Resistance

% Population Disadvantaged
15.47%

National Risk Index Rating
Very Low
Source: FEMA National Risk Index

Billion-Dollar Weather and Climate Disasters

U.S. Climate Resilience Toolkit
Source: Census Bureau, CEQ, Esri, FEMA, MRLC, NOAA, UCSD

Future Climate Indicators

Indicator	Modeled History (1976 - 2005)	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Century (2070 - 2099)	
		Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions
	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max
Precipitation:							
Average annual total precipitation	**30"** 29 - 32	**32"** 28 - 34	**32"** 28 - 35	**32"** 28 - 37	**32"** 27 - 37	**32"** 28 - 37	**33"** 28 - 40
Days per year with precipitation (wet days)	**156 days** 153 - 160	**156 days** 143 - 164	**155 days** 142 - 163	**155 days** 145 - 164	**154 days** 139 - 165	**155 days** 144 - 167	**153 days** 128 - 173
Days per year with no precipitation (dry days)	**209 days** 206 - 213	**209 days** 201 - 222	**210 days** 202 - 223	**210 days** 201 - 221	**211 days** 200 - 226	**210 days** 198 - 221	**212 days** 192 - 237
Maximum number of consecutive dry days	**16 days** 14 - 17	**16 days** 14 - 18	**16 days** 14 - 17	**16** days 14 - 19	**16 days** 14 - 19	**16 days** 14 - 18	**16 days** 14 - 21
Temperature thresholds:							
Annual days with maximum temperature > 90 °F	**8 days** 8 - 11	**25 days** 9 - 43	**27 days** 12 - 45	**34 days** 12 - 61	**42 days** 15 - 71	**44 days** 16 - 78	**71 days** 29 - 100
Annual days with maximum temperature > 100 °F	**0 days** 0 - 0	**1 days** 0 - 4	**1 days** 0 - 4	**3 days** 0 - 8	**5 days** 1 - 16	**5 days** 0 - 8	**20 days** 1 - 57

N/A = Data Not Available for the selected area

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