



Data centers, Climate Action Plan, and the Land Development Code

Environmental Quality Commission
7/16/2025

Background – History



- **2006** Economic Development Strategy adopted
- **2008** Comprehensive Plan adopted
- **2009** 500+ acres annexed for commercial/industrial use
- **2011** Land Development Code updated
- **2011** Business Park master plan effort
- **2017** Xcel-certified site
- **2019** Refresh and reframe approach
- **2022–2023** Alternative Urban Areawide Review (AUAR completed)

Background – Xcel Energy Certified Site & AUAR



- **What is an Xcel Energy certified site?**
 - Xcel Energy's real estate programs help communities attract capital investment and create new, high-paying jobs
 - Assistance with marketing and recruitment
- **What is an Alternative Urban Area-wide Review (AUAR?)**
 - Alternative to an Environmental Impact Statement (EIS). Answers same questions in the EAW form to level of detail as an EIS.
 - Scenario planning tool to address potential environmental effects of an unknown future development
 - Must be updated every 5 years until an area is built out.

Background – Climate Action and Comprehensive Plans



2008 – Comprehensive plan sought to expand commercial/industrial tax base, sustainably

- Mayor's Energy Task Force publishes With Hope: A Resilient Community

2018 – Council committee on NW area issues report

2019 – Climate Action Plan (CAP) adopted

2025 – Comprehensive Plan adopted incorporating CAP

- Primarily addressing things the City specifically controls

2018 Council committee findings & recommendations:



- 500 acres in the northwest area cannot be viewed in isolation.
- Development must support/not draw from downtown.
- Proposed plan needs updated information on market feasibility, fiscal impact, return on investment, infrastructure
- Updated plans and policy should reflect other City priorities such as climate action, equity, and transportation choice.
- The fiscal security of Northfield's future with respect to development opportunities and sustainability practices should be at the forefront of planning discussions.

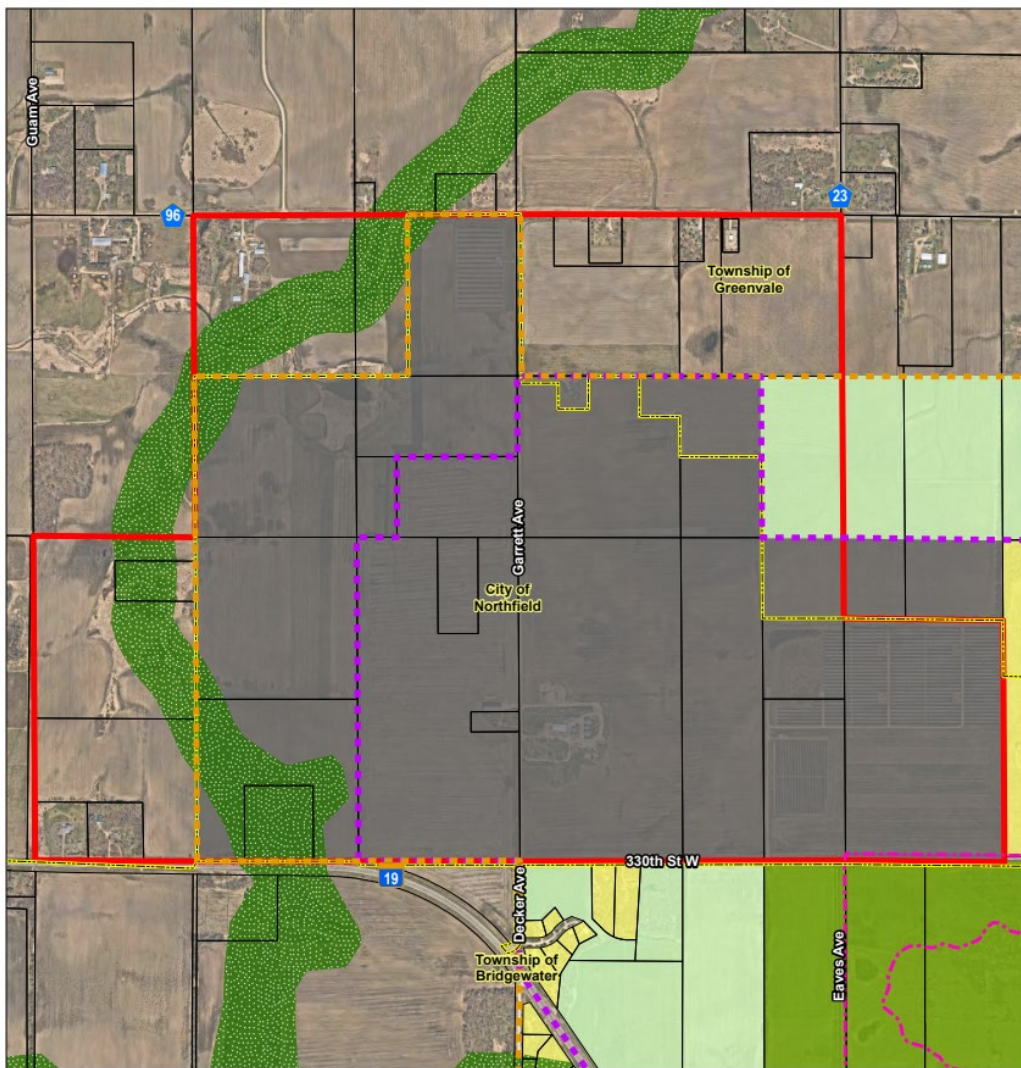


Legend

- Existing Trail
- Urban Expansion Area
- Priority Growth Area
- Municipal Boundary
- Project Area
- Greenway Corridors
- Parcels

Framework Plan

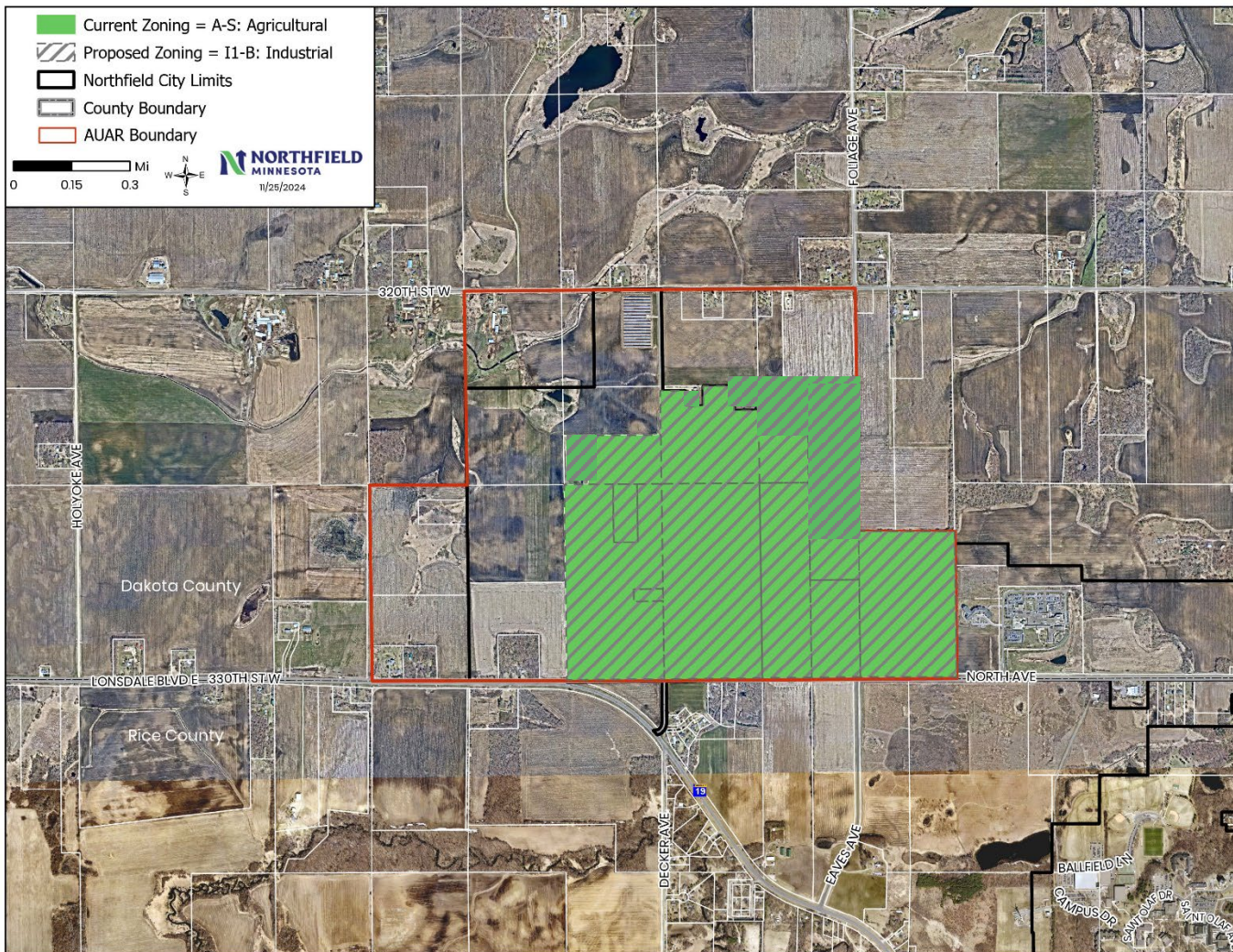
- District
- Neighborhood General 1
- Preserve
- Rural



Yellow: within
city limits
(~523 ac.)

Red: AUAR study
boundary
(~730 ac.)

Purple: Priority
Growth (~354)



Final industrial
area

Total: 399 ac.

Response to 2019 recommendations :



- *Northfield 2045* Comprehensive Plan adopted
- Area rezoned to industrial
- Actively marketing site for users that meet/exceed Northfield's adopted climate goals, are complementary to primary industry sectors (education, medicine, industry/agricultural-related industry)
- Completed cost estimates for infrastructure investments in water & wastewater

City Strategic Growth



- **Assessed Tax Values (Dakota County)**
 - Agriculture use land ~ \$60/acre
 - Commercial solar installation ~ \$75/acre
 - Commercial Development (Viking auto salvage) ~ \$4,509/acre
 - Industrial Development – \$5,000/acre

Market feasibility, fiscal impact, infrastructure



- **Complementary growth industries:**
 - Research and development
 - Renewable energy manufacturing
 - Information technology
 - Medical/pharm
 - Food production & processing
- **Fiscal impact**
 - Sanitary sewer costing
 - Potable water costing
 - Property tax implications
 - Service implications
- **Infrastructure**
 - Sanitary sewer capacity analysis
 - Potable water capacity
 - Sidewalks, roads, trails, parks, schools

Engineering reviewed:

- Existing & Future Trunk Sewer Capacity and Water System needs
 - Implement and analyze flow monitoring equipment
 - AUAR, Development Reviews, Comp Plan
 - Assess infrastructure's capacity for current and future demands

Infrastructure Improvement Recommendations

- Proposed trunk sewer alignments and sizing
- Proposed water system improvements
- Opinion of probable costs for upgrades
 - ~ \$20M for wastewater upgrades
 - ~\$14M for full complement of water system upgrades

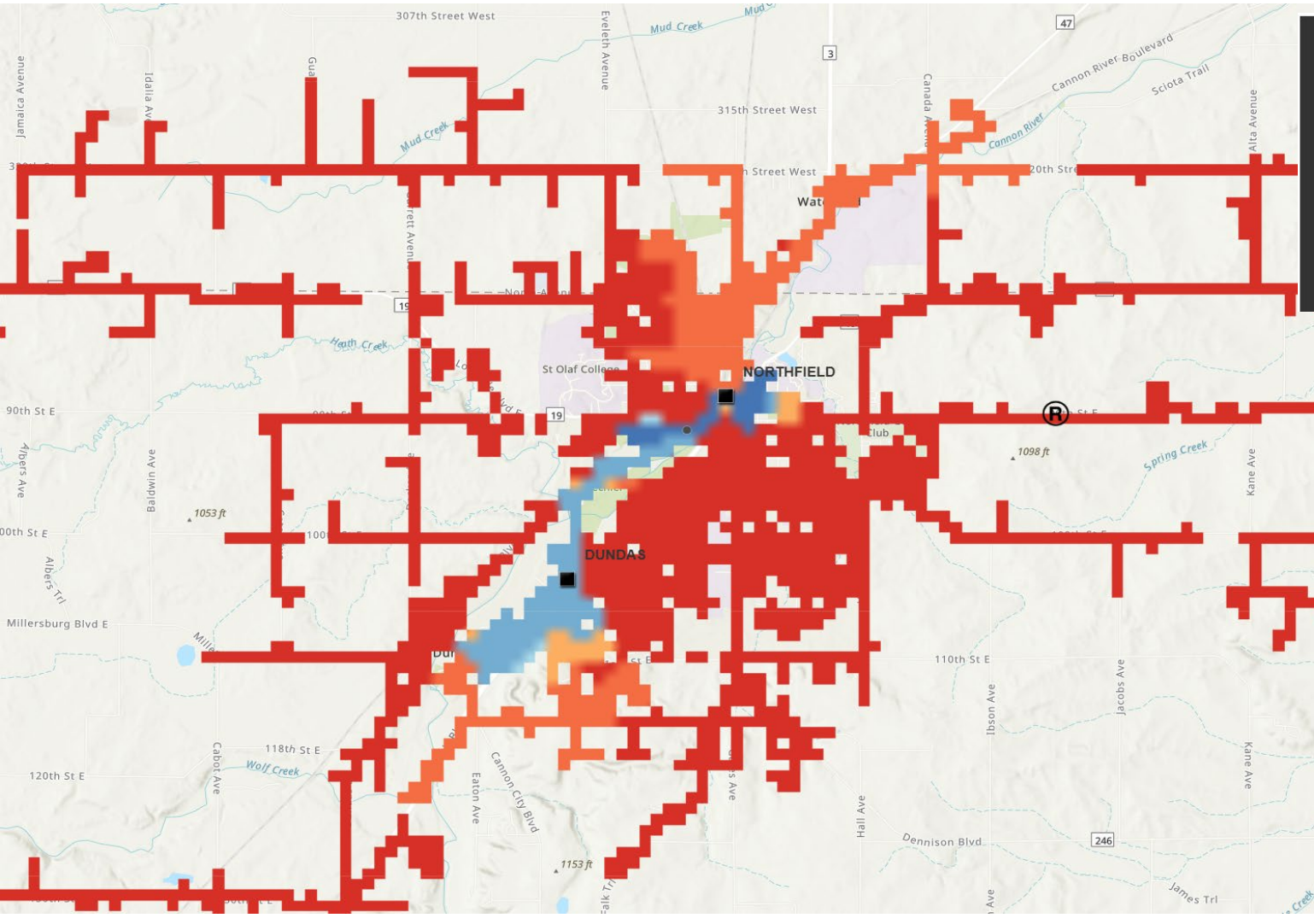


Infrastructure

Sample water/wastewater usage



Industry	Wastewater Permit Limit (Daily Average)	Water Usage (Daily Average)
Sheldahl	400,000 gpd	80,000 gpd
Post Consumer Brands	375,000 gpd	280,000 gpd
All Flex	77,886 gpd	40,000 gpd
Data Center	10,000 – 700,000 gpd	10,000 – 2,000,000 gpd



Map Updated 05/01/2025

- > 1 MW
- 751 - 1 MW
- 501 - 750 kW
- 251 - 500 kW
- 1 - 250 kW
- 0

Climate Goals:

Renewable Energy

Source: [Hosting Capacity Map Overview](#)

Land Development Code – updates



- Limited update to the existing II-B: Industrial zone
 - Considers the goals of the Climate Action Plan; recent changes in building materials and technology and best-practices for industrial users regarding energy efficiency and environmental sustainability.
 - Provide clear guidelines and standards for potential industrial users interested in building in Northfield.

Land Development Code – definitions



- **Conditional uses**
 - **Uses that may impact neighbors & benefit from local input**
 - **Must meet standards**
 - **Local input may result in additional conditions**
- **Performance standards**
 - **Technical rules generally addressing measurable, potentially negative aspects of a building or use**
- **Permitted uses**
 - **Allowed if meets all expressed standards**
- **Principal uses**
 - **The main activity that happens on the property**
- **Site development guidelines**
 - **How the buildings and other equipment can be arranged on/around the property**

Land Development Code – refined old and defined new uses



- **Industrial Use Category**

- Data processing facility
- Cannabis/hemp Cultivation, outdoor, indoor, manufacture
- Manufacturing, processing, or packaging of products using raw materials
- Research and Development Facilities
- Renewable energy technology production and processing

Performance standards and design guidelines for industrial uses defined:



- **Refined existing standards:**

- Noise
- Exterior Lighting
- Height
- Electric grid connectivity and use
- Renewable energy
- Site Design

- **New performance standards:**

- Air quality and odors
- Heat and humidity
- Water use
- Energy use
- Material handling/recycling
- Use of solvents

Performance standards

Data processing:



- **What we heard:**

- Too much noise
- Too much vibration
- Too bright
- Too much energy use
- Too much water use

- **How addressed:**

- Measurable standards tied to industry terms:
 - Noise
 - Vibration
 - Light
 - Dark skies ordinance
 - Water
 - Closed system; passive cooling preferred
 - Energy
 - Renewables preferred

Performance standards

How derived:



- **Started with research**
 - Info Tech industry research
 - Research from American Planning Association
 - Evaluated data center operations in Northern Europe
 - Based on what is possible

Next steps



- **Both/and approach**
 - Focus on hyperscalers
 - Focus on closed systems or non-water cooled
 - Focus on renewable energy generation potential
 - Focus on green data centers
 - Prioritize recruitment of complementary industries

Questions:

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