



Aviation Issues in Surface Planning

MCPZA Annual Conference
Sugar Lake Lodge
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Mn/DOT Office of Aeronautics

Kathy Vesely, Aviation Planning Director
Rick Braunig, Aviation Representative

www.mndot.gov - click on the Airplane -



Objects that Impact ~~North~~ ~~High~~ ~~rise~~

- Wind Energy
- CAPX2020



CapX2020

Delivering electricity you can rely on



Objects that Impact ~~Rate~~ ^{Rate} Increase

- Wind Energy
- CAPX2020



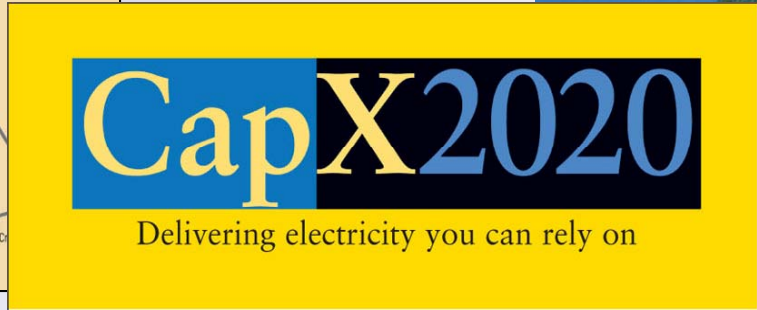
CapX2020

Delivering electricity you can rely on

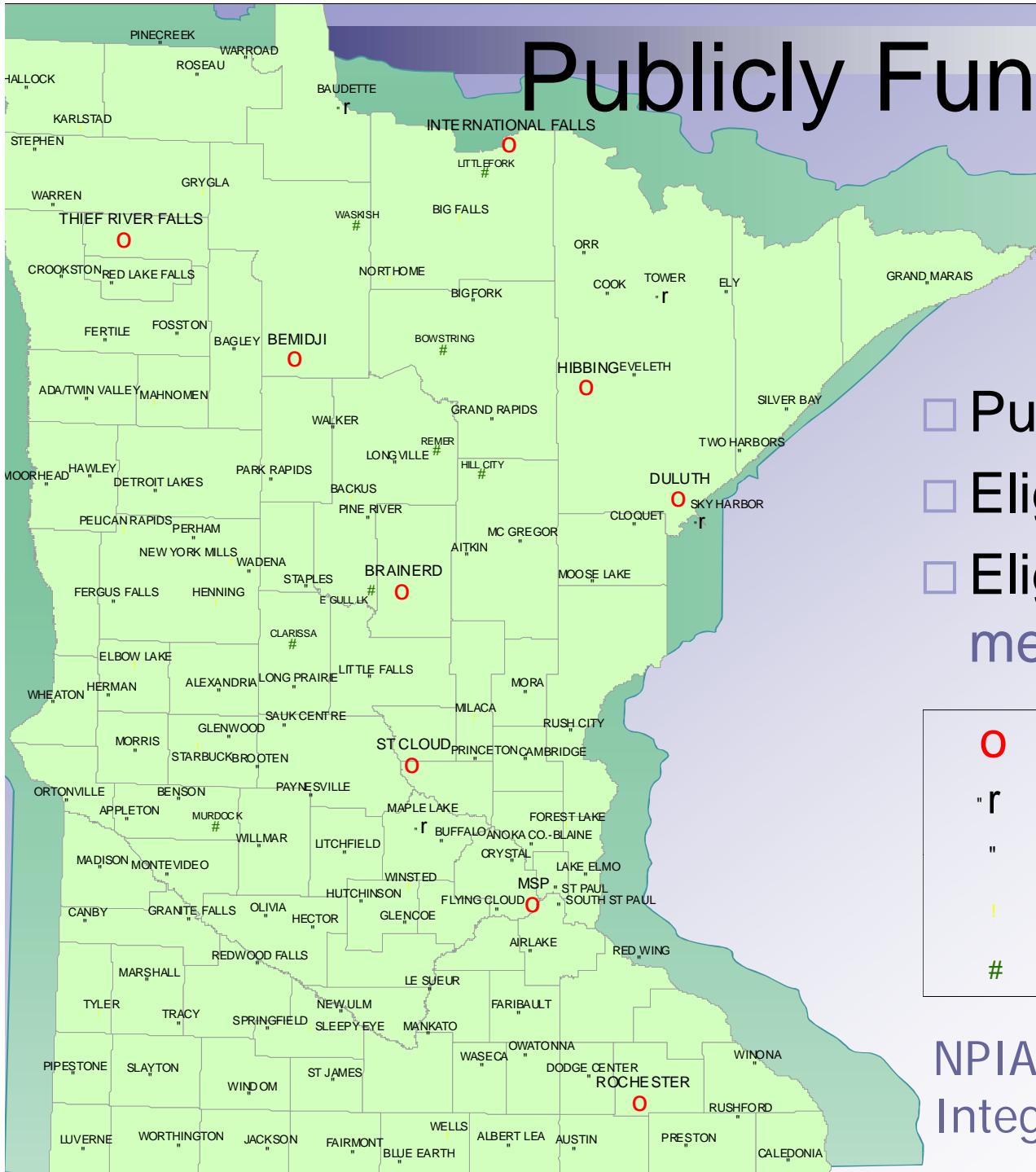


Objects that Impact ~~Rate~~ ^{Rate} Increase

- Wind Energy
- CAPX2020



Publicly Funded Airports



136 airports

- Public Sponsor
- Eligible for State \$\$\$
- Eligible for FAA \$\$\$
meet NPIAS criteria

○	Commercial (9)
"r"	Paved w/Seaplane Base (4)
"	Paved (98)
!	Lighted Turf (17)
#	Turf (8)

NPIAS = National Plan of Integrated Airport Systems

Airports located in your county

County		Itasca			
<i>FacilityType</i>		<i>AIRPORT</i>			
<i>Use</i>	<i>Owner</i>	<i>City Name</i>	<i>Facility Name</i>	<i>SASP Class</i>	<i>NPIAS</i>
UN	PR	Hibbing	Gospel Ranch	-	No
PU	PU	Bigfork	Bigfork Municipal Airport	Intermediate	No
PU	PU	Bowstring	Bowstring Airport	Landing Strip	No
PU	PU	Grand Rapids	Grand Rapids/Itasca Co-Go	Key	Yes
CL	PR	Cohasset	Richter Ranch		No
<i>FacilityType</i>		<i>HELIPORT</i>			
<i>Use</i>	<i>Owner</i>	<i>City Name</i>	<i>Facility Name</i>	<i>SASP Class</i>	<i>NPIAS</i>
PR	PR	Bigfork	Northern Itasca Hospital Di		No
PR	PR	Grand Rapids	Grand Rapids Hospital Heli		
<i>FacilityType</i>		<i>SEAPLANE BASE</i>			
<i>Use</i>	<i>Owner</i>	<i>City Name</i>	<i>Facility Name</i>	<i>SASP Class</i>	<i>NPIAS</i>
PU	PR	Grand Rapids	Bayside Marina Seaplane B		No
PR	PR	Bigfork	Bolduc Seaplane Base		No
PR	PR	Grand Rapids	Northbound Seaplane Base		No
PR	PR	Grand Rapids	Airways Aviation Center Se		No
PR	PR	Grand Rapids	Voigt Seaplane Base		No
PR	PR	Hibbing	Christenson Point Seaplane		No

Protections for Public Airports

- Airspace and Land-Use Zoning

M.S. 360.061 to 360.074

Minnesota Rules 8800.2400

Unique Process – Multijurisdictional

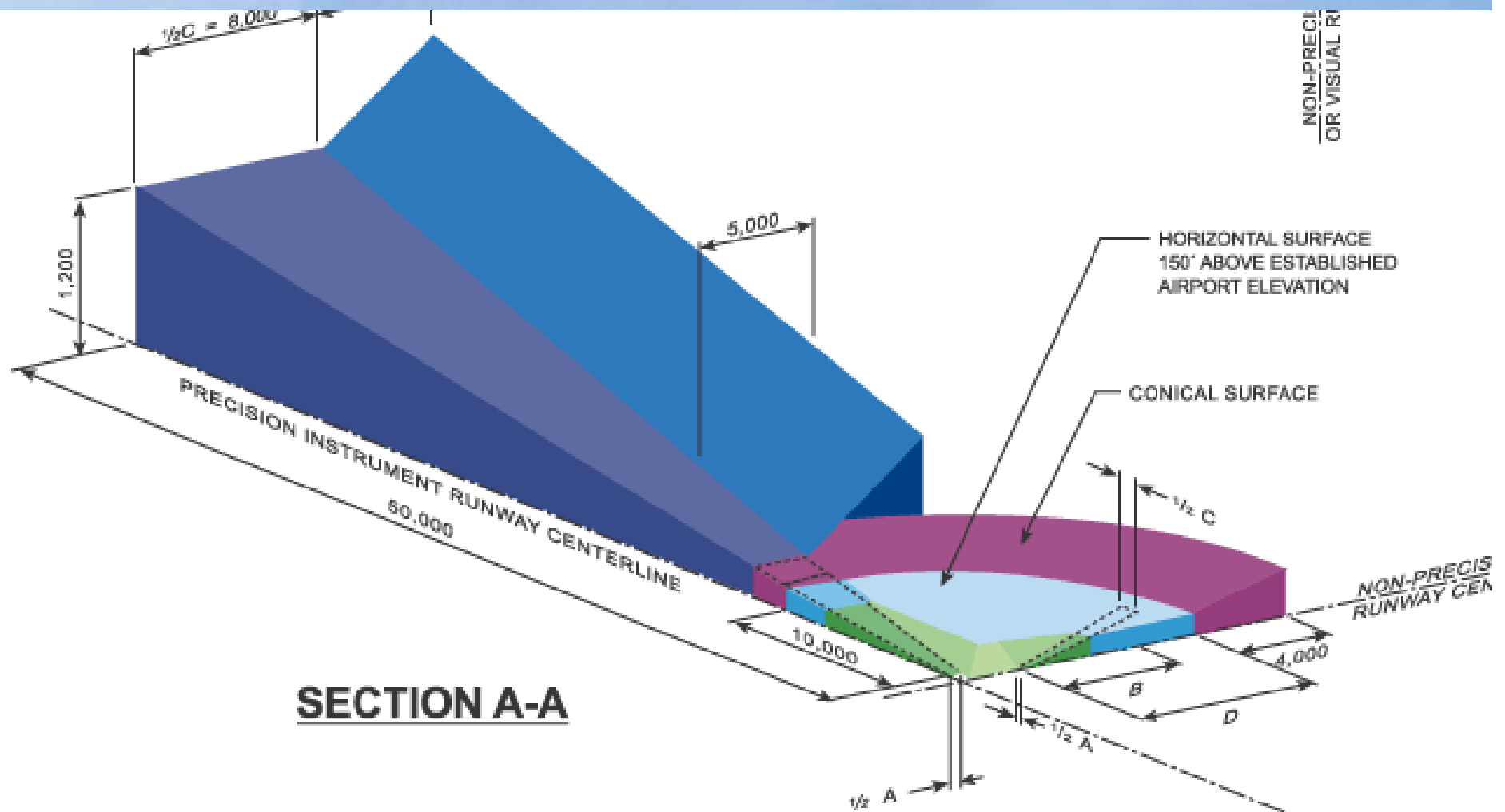
- Code of Federal Regulations

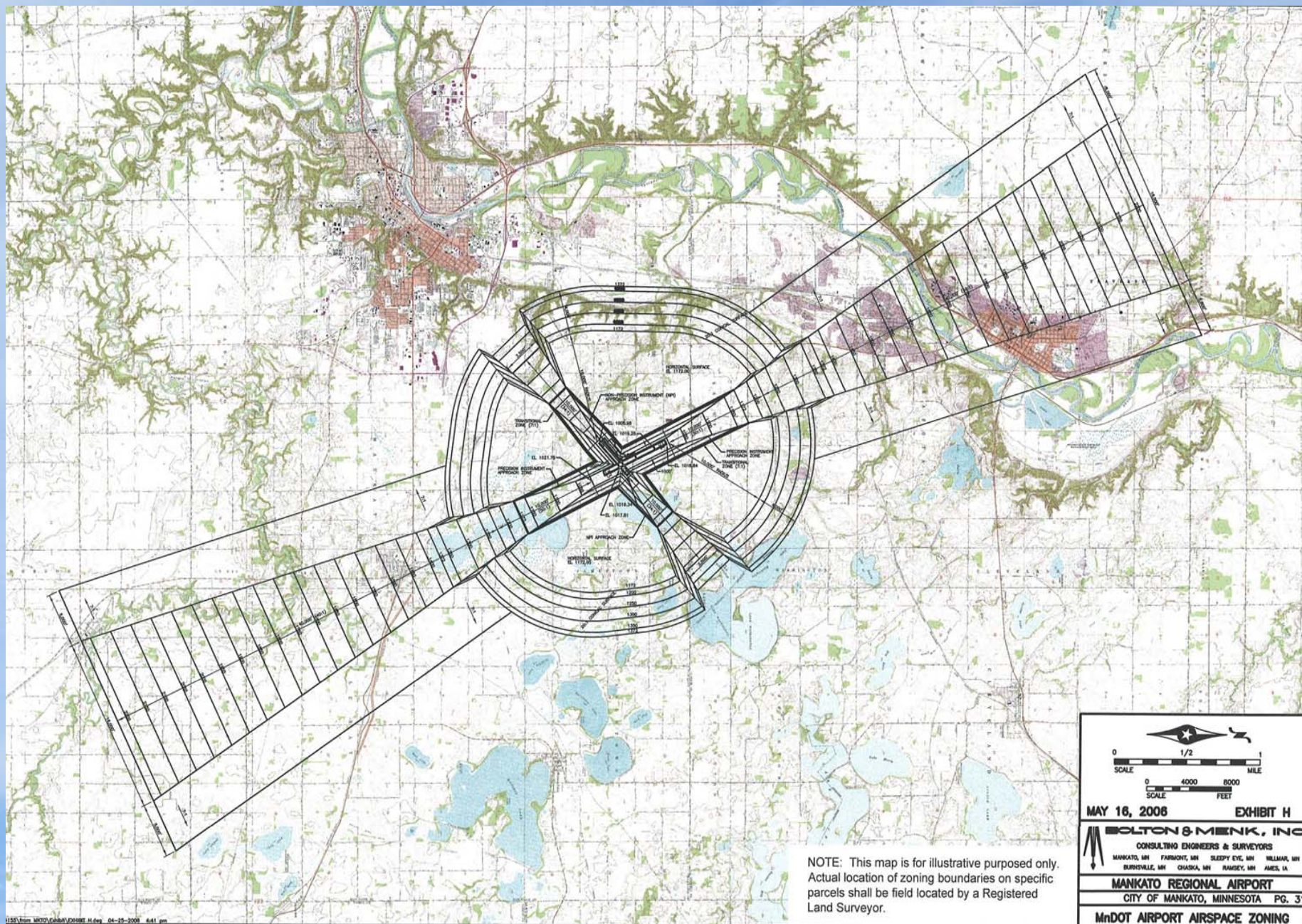
Title 14, Part 77

Objects Affecting Navigable Airspace

Airspace

- A “STADIUM of Air” that pilots use to circle and land at the airport during Normal Operations.





MAY 16, 2006 **EXHIBIT H**

BOLTON & MEENK, INC.
 CONSULTING ENGINEERS & SURVEYORS
 MANKATO, MN FARMINGTON, MN SLEEPY EYE, MN WILLMAR, MN
 BURNSVILLE, MN CHASKA, MN RANGELY, MN AMES, IA

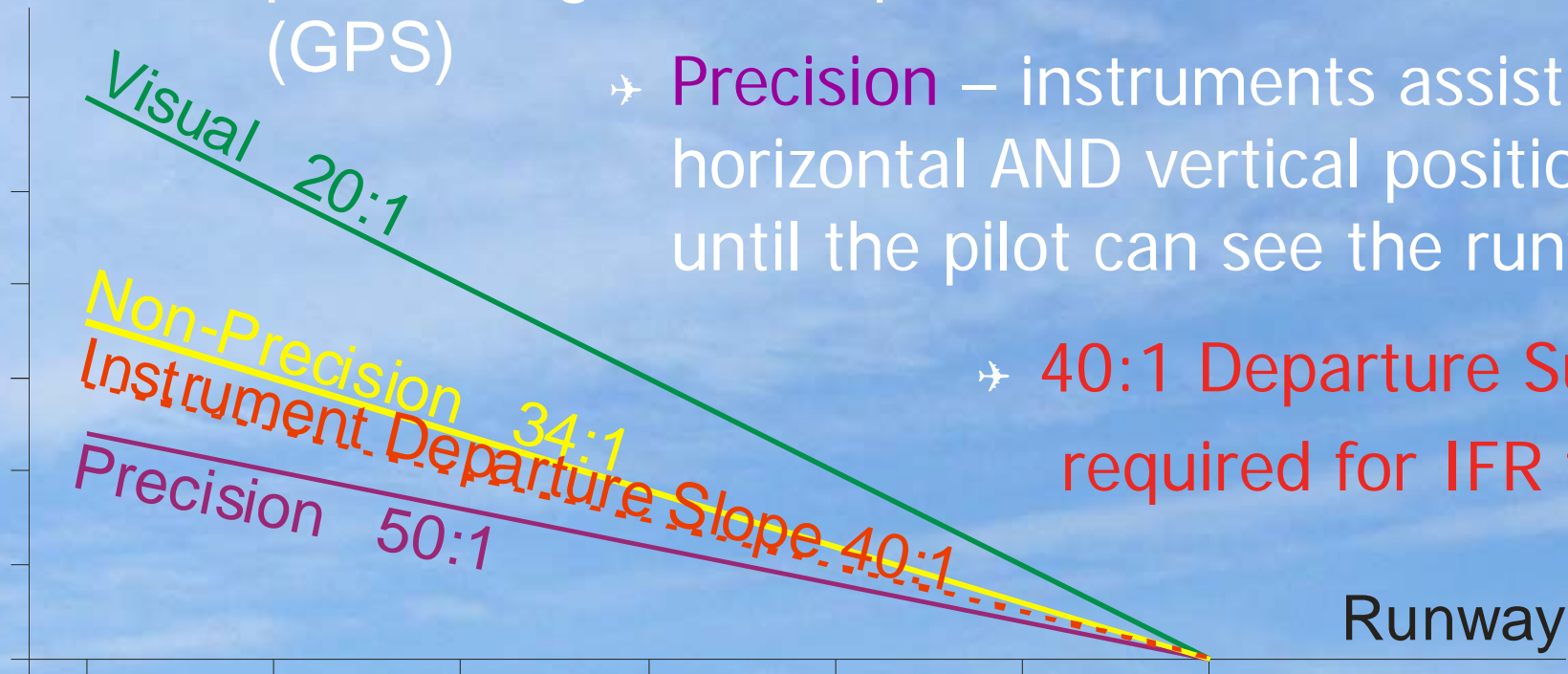
MANKATO REGIONAL AIRPORT
 CITY OF MANKATO, MINNESOTA PG. 31

MNDOT AIRPORT AIRSPACE ZONING

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Approaches

- A section of airspace that acts as a ramp to the runway.
 - **Visual** – pilot can see the runway
 - **Non-Precision** – instruments assist with positioning until the pilot can see the runway (GPS)
 - ✈ **Precision** – instruments assist with horizontal AND vertical positioning until the pilot can see the runway
- ✈ 40:1 Departure Surface required for IFR flights



Space

■ Air

□ FAA has Authority over Airspace

- Airspace Use
- Aviator Licensing
- Airport Design / Funding
- Air Traffic Control
- Aircraft Airworthiness

✈ State

- ✈ Technical & Funding Support
- ✈ Statutes & Rules
 - ✈ Public Safety
 - ✈ Airport Protection

🏠 Land

🏠 Local Authority

🏠 Implementation & Enforcement of Land Use Compatibility Measures

🏠 Planning

🏠 Acquisition

🏠 Zoning

Minnesota Standard Zones

Simple Example
of Airport Zoning



Zone C

Zone A
+ Zone B
Runway Length

COORDINATION

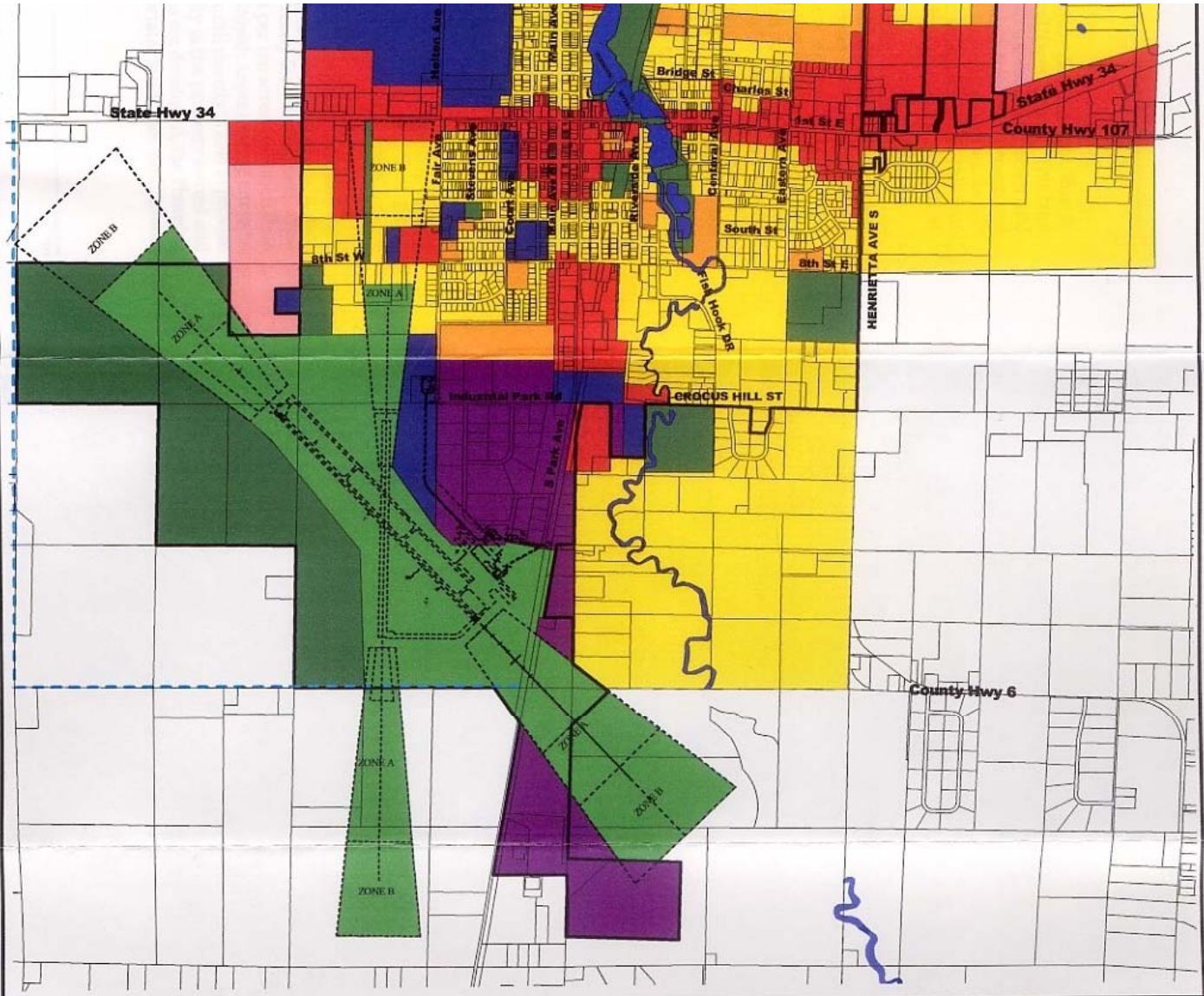
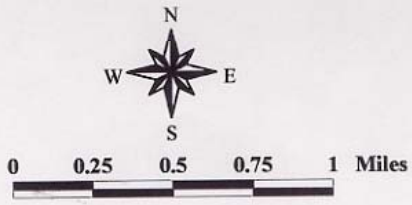


Figure 7
City of Park Rapids
Comprehensive Plan 2005
Future Land Use Map



Future Land Use	
■	Airport
■	Commercial
■	Park and Open Space
■	Industrial
■	Public/Semi Public
■	Single Family
■	Multiple Family
■	Light Industrial
■	Water
---	Future Bypass
---	City Boundary

Beyond Zoning

- CFR 14, Part 77 surfaces can extend 10 miles from the airport.
- Outside of the zoned airport property Mn/DOT or the FCC have permit authority.
- Towers that transmit require an FCC permit.
- Construction that impacts aviation requires a permit from Mn/DOT.

FAA Obstruction Evaluation Criteria

- Notice must be filed with the FAA for any object over 200 feet high.
- Notice must be filed if an object will penetrate a 100 to 1 slope out to 20,000 feet (~4 miles) from the airport.
- FAA Form 7460-1, Notice of Proposed Construction must be filed 30 days in advance.

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The Wind Turbine Effect

- The number of proposals we screen has radically increased.
- Wind turbines over 400 feet tall can affect airports miles away.
- We need your help in ensuring that all developers know about the FAA's notification requirements.



Protecting Public Investment

- **Airports bring business to communities all over Minnesota.**
- Doctors to perform operations in Canby, MN.
- Aerial applicators to spray farmlands to save a crop.
- Corporate Officers come to visit a local branch.
- Business people to tour factories or look for new ones.
- Parts from DigiKey shipped one day to arrive the next.
- The aircraft maintenance facility in Park Rapids where we had our engine repaired.
- **If we don't protect the airport, we reduce the present and future value of that investment.**

Other Types of Airports

- Most Counties will have several private and personal-use airports and maybe even a privately-owned public-use airport.
- While privately-owned public-use airports are considered in the FAA's determination process, private and personal-use airports are not.

Private Airports

- Private Airports are home to:
 - Airparks
 - Aerial Applicators
 - Farmers
 - Businesses

- Many privately owned airports have existed for years and may have a substantial investment in their airport.


Protections for Private Airports

- The FAA does not evaluate construction proposals for their impact on private airports.
- Mn/DOT does not require a permit for construction affecting a private airport.
- Private airports are not required to be zoned. One is zoned: Benson's in WBL; and one is in the process of zoning: Webster Airpark.

- Though there is no protection for the airspace surrounding a privately-owned airport, Mn/DOT will require an airport to close if an object is built that obstructs the approach to the runway.

TO CLOSED





An Ordinance Amendment Protecting Privately-owned Airports in Dane County, WI.

- Counties that recognize the value of private airports can take action to protect their airspace.
- Like public airports, private airports are being impacted by the growth of the wind power industry.

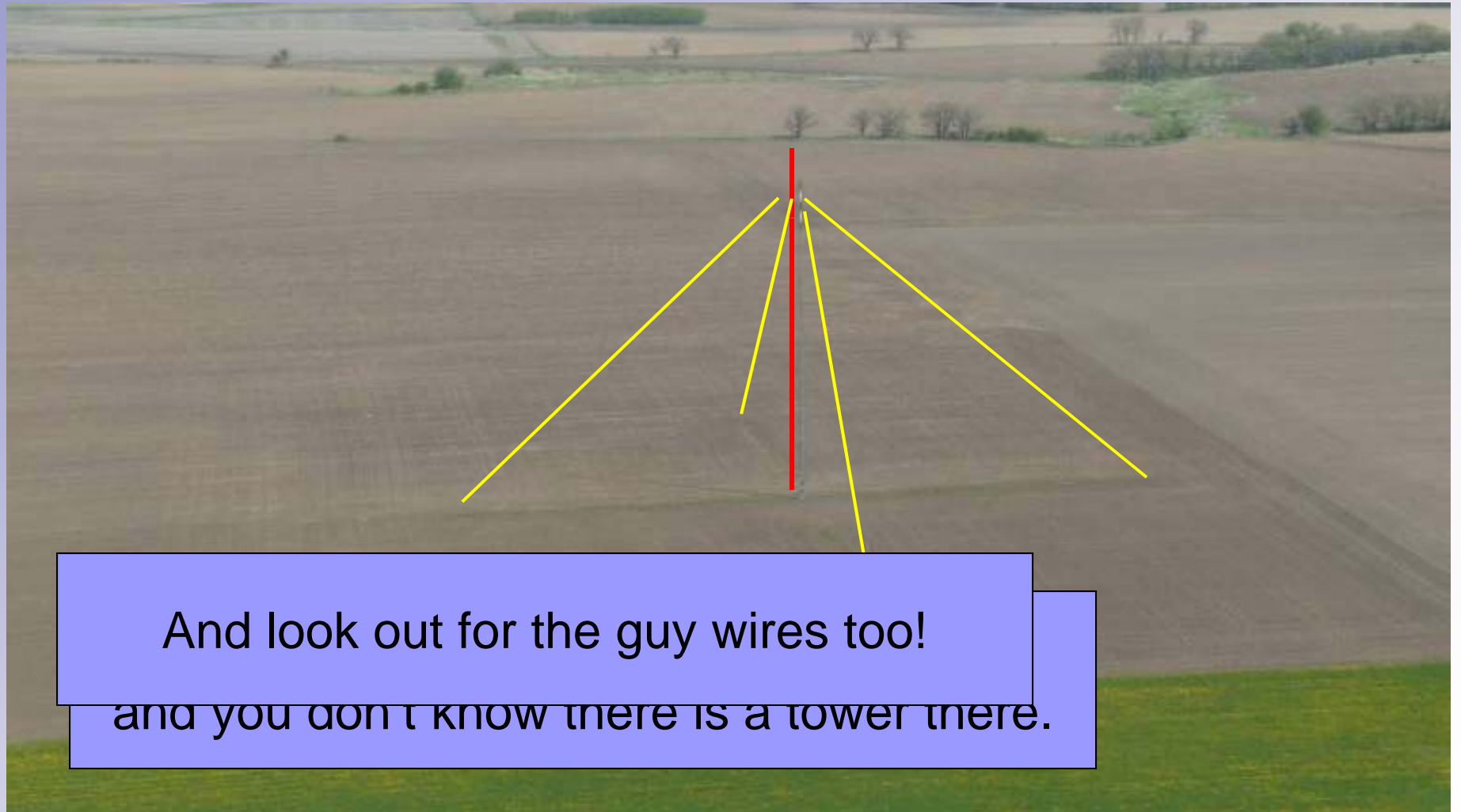
Towers Less than 200 Feet

- There are no notification requirements for towers less than 200 feet tall unless they are close to an airport.



- Air-medical helicopters and aerial applicators fly below 200 feet above ground.

Do you see the tower?



And look out for the guy wires too!

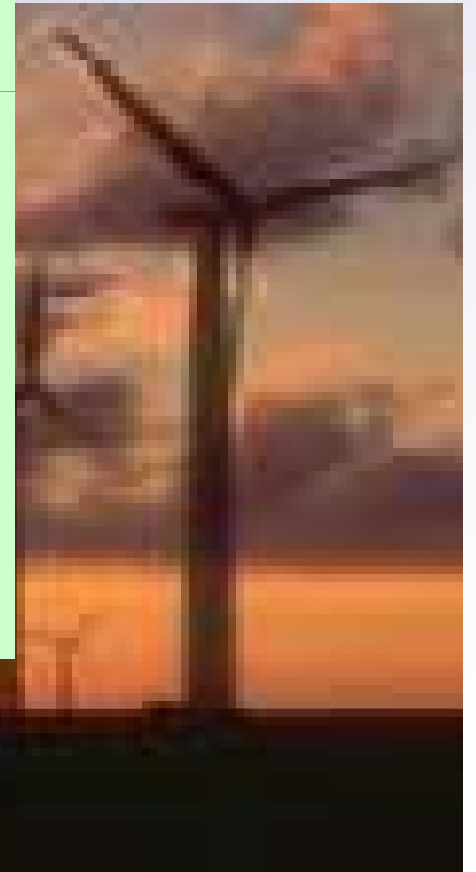
and you don't know there is a tower there.

What can be done.

- Pilot's can use GPS to avoid towers if they know where the towers are located.
- A notification and dissemination process must be developed.
- A marking and lighting standard would help with visual identification of these towers.
- The Wind Power Contractors are working with the pilot groups to resolve these issues.

The message for today

- Please ensure that tower proponents are using the FAA notification system.
 - Require a copy of their Form 7460 for all construction over 200 feet high.
 - Building near airports is subject to stricter standards
- Where airport zoning ends, permitting begins.
- Contact us if there is any question.



Thank you

Kathy Vesely: 651-234-7193

Kathy.Vesely@dot.state.mn.us

Rick Braunig: 651-234-7230

Rick.Braunig@dot.state.mn.us

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