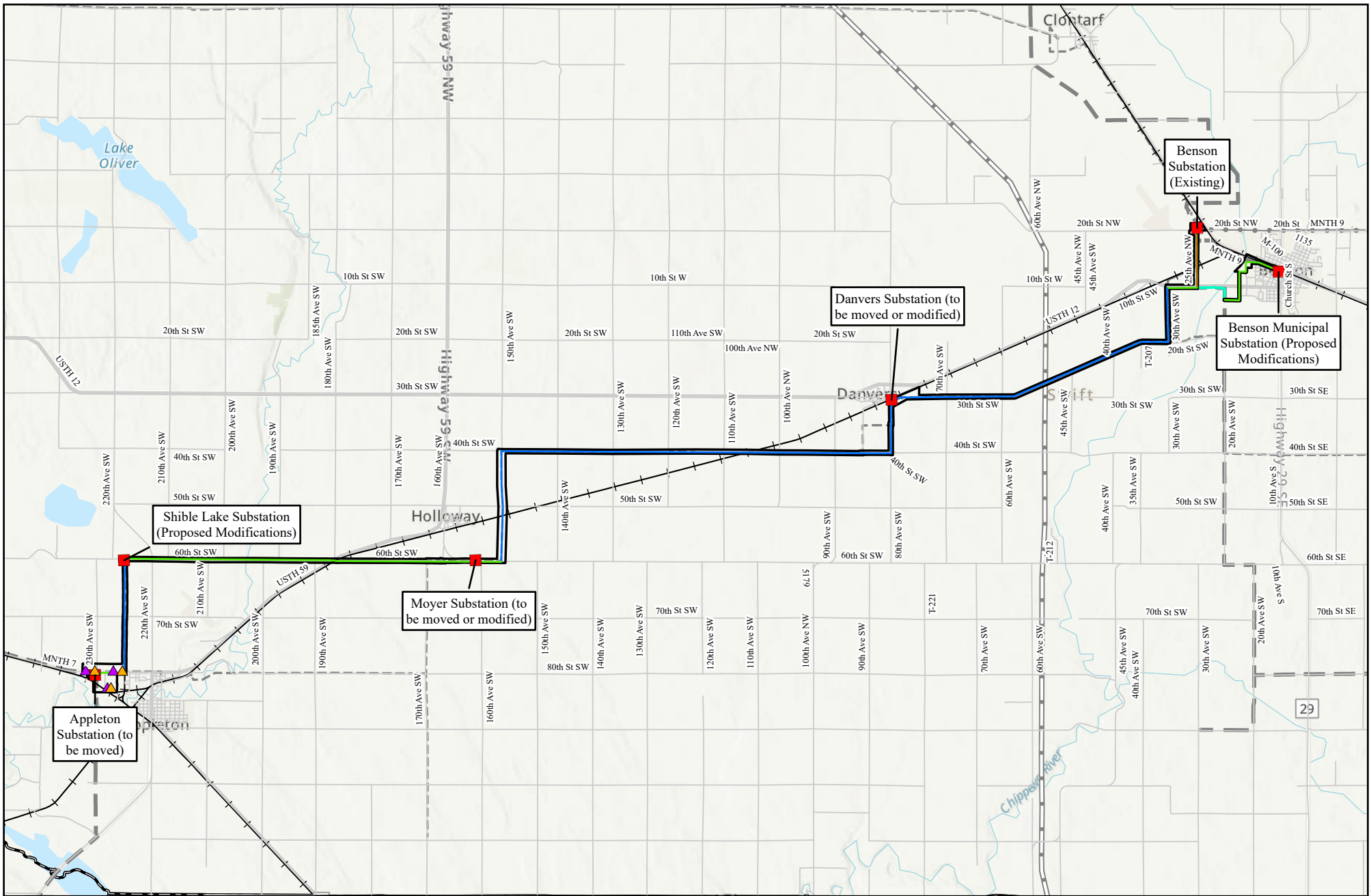


Appendix A- Figures



0 1 2 Miles

1:150,000

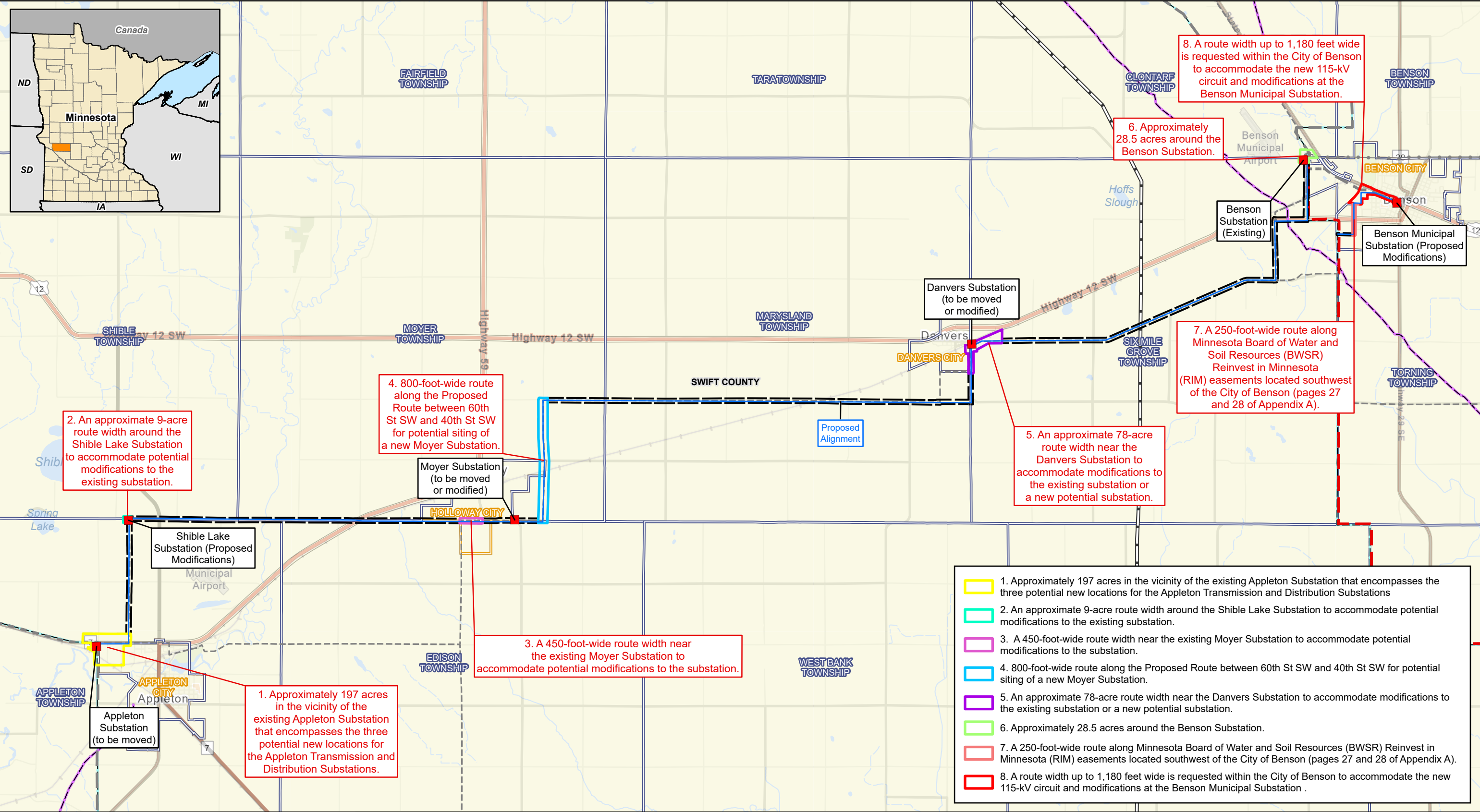
For Environmental Review Purposes Only

Figure 1- Project Overview

Appleton to Benson 115-kV Transmission Line Project

Swift County, Minnesota

<ul style="list-style-type: none"> ■ Substation ▲ Appleton Distribution Substation Location Option ▲ Appleton Transmission Substation Location Option — Proposed New 115 kV Transmission Line — Proposed Rebuild of Existing 115-kV — Proposed Upgrade 41.6-kV to 115-kV — Proposed Removal of 115-kV Transmission Line Route Width 	<ul style="list-style-type: none"> --- 41.6-kV Transmission Line --- 69-kV Transmission Line --- 115-kV Transmission Line --- 230-kV Transmission Line + BNSF Railway County Boundary
---	---



012 Miles

1 inch = 2 miles

N

E

S

W

Figure 2- Proposed Route Widths
Appleton to Benson 115-kV Transmission Line Project
Swift County, Minnesota

■ Substation

— Proposed Alignment

▭ Proposed Route

--- 41.6-kV Transmission Line

--- 69-kV Transmission Line

--- 115-kV Transmission Line

=== 230-kV Transmission Line

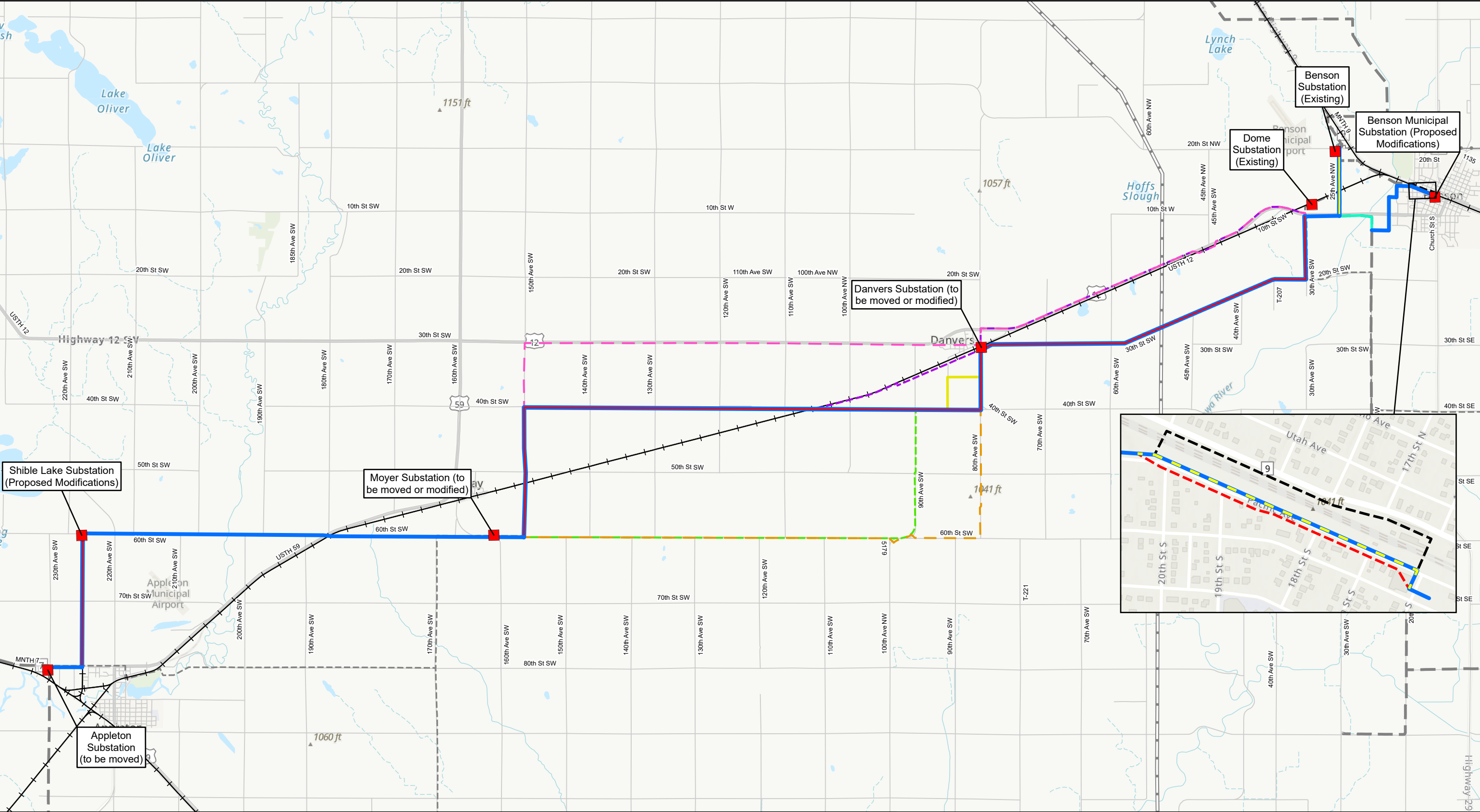
--- GRE AG-BK 115-kV Line

--- Existing Natural Gas Pipeline

▭ City Boundary

▭ Township Boundary

▭ County Boundary



012 Miles

1:90,000

Figure 3: Route Alternatives Considered but rejected
Appleton to Benson 115-kV Transmission Line Project

Swift County, Minnesota

Substation

Proposed New 115 kV Transmission Line

Proposed Rebuild of Existing 115-kV

Proposed Upgrade 41.6-kV to 115-kV

Proposed Removal of 41.6-kV Transmission Line

Proposed Removal of 115-kV Transmission Line

Alternative 1

Alternative 2

Alternative 3

Alternative 4

City of Benson Alignment Alternative 1

City of Benson Alignment Alternative 2 (Proposed Line)

City of Benson Alignment Alternative 3

41.6-kV Transmission Line

69-kV Transmission Line

115-kV Transmission Line

230-kV Transmission Line

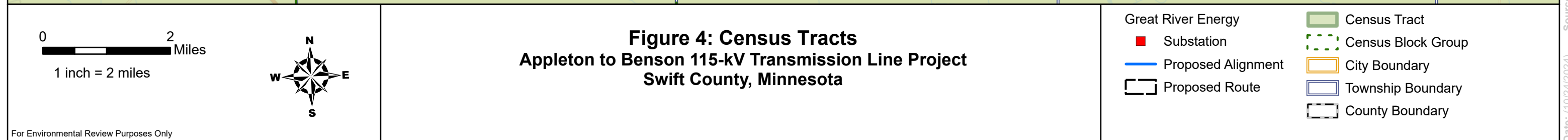
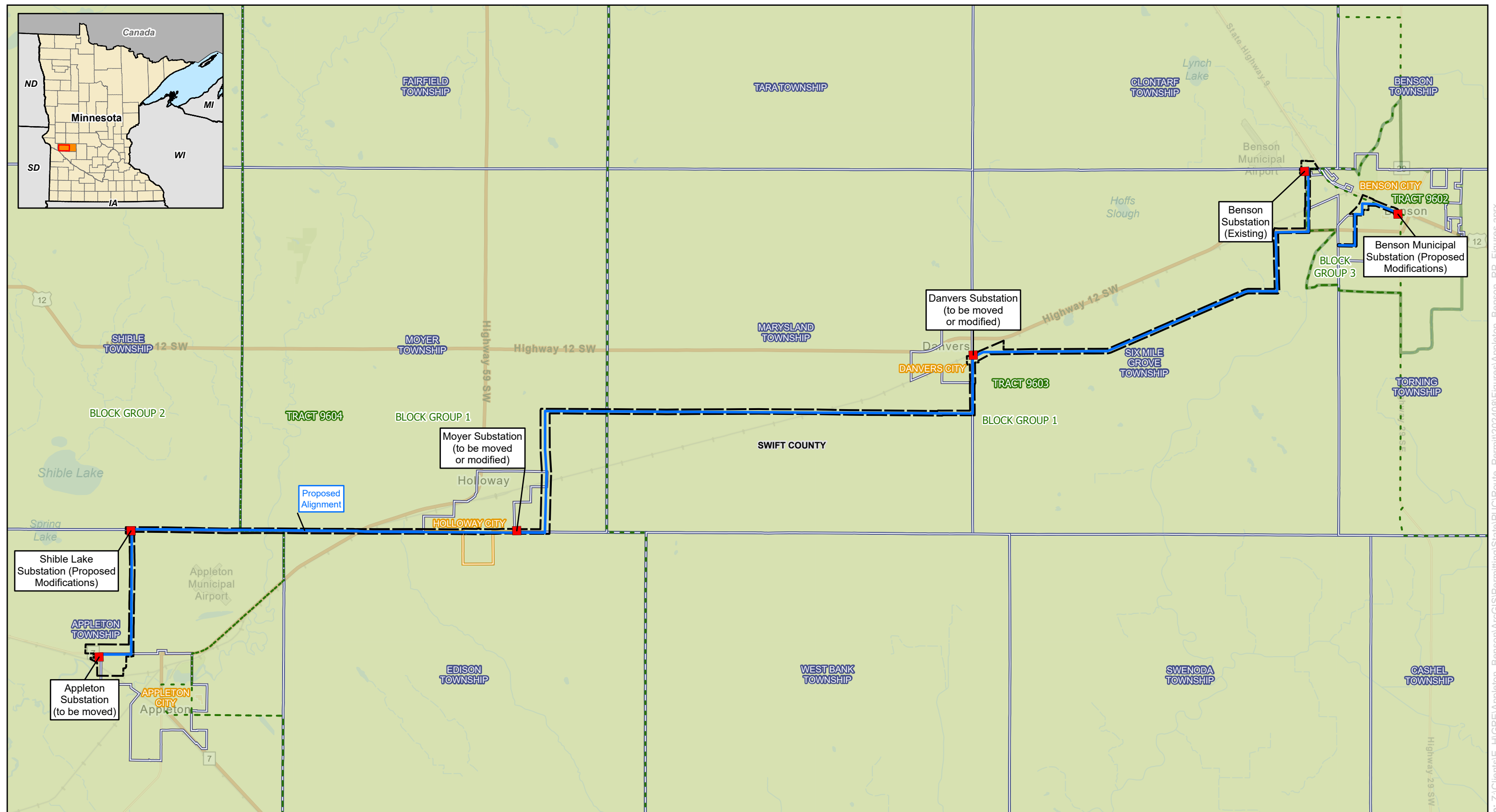
BNSF Railway

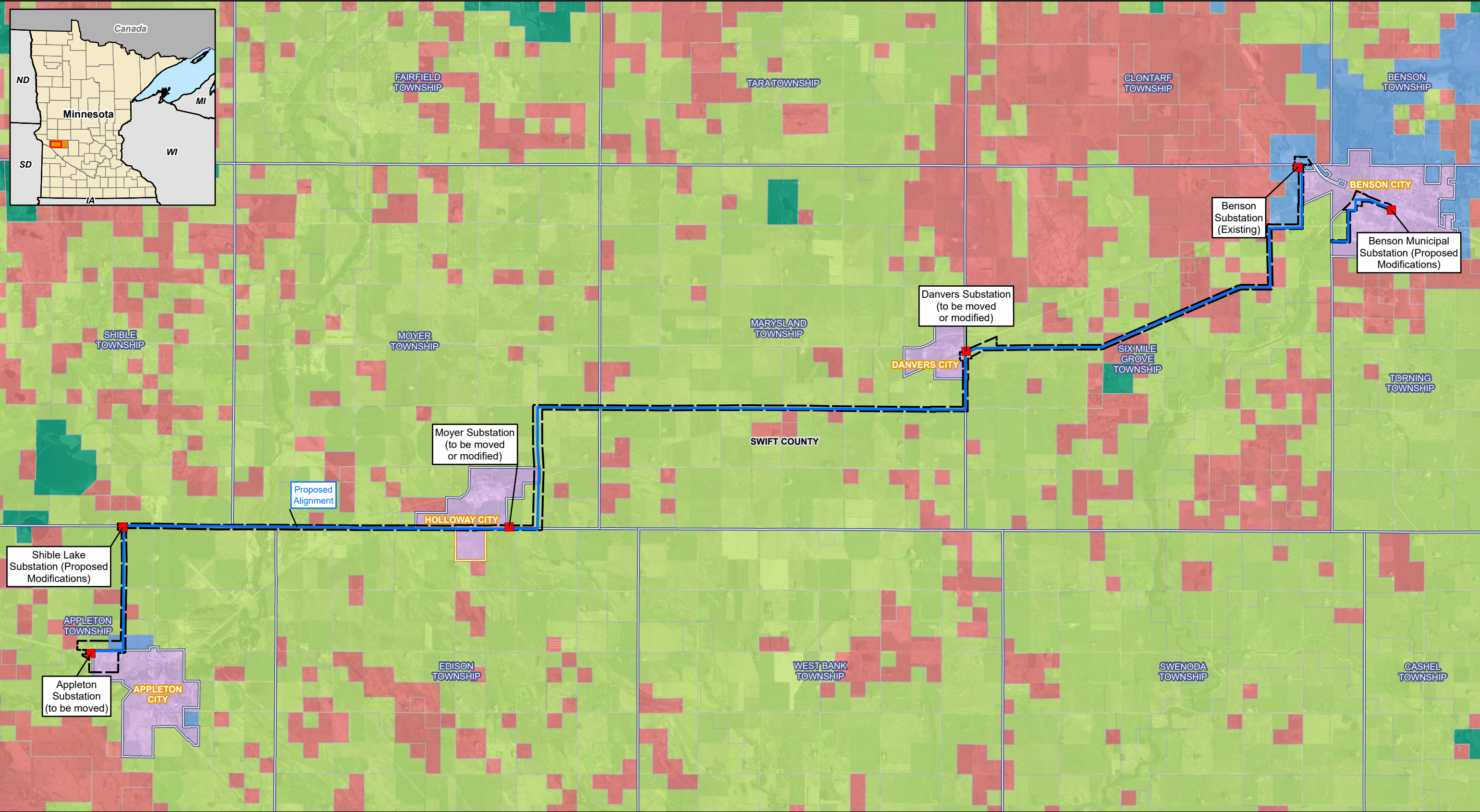
County Boundary

Date: (10/23/2024)

Source:

For Environmental Review Purposes Only





02 Miles

1 inch = 2 miles

GREAT RIVER ENERGY

Figure 6: Zoning

Appleton to Benson 115-kV Transmission Line Project

Swift County, Minnesota

Great River Energy

■ Substation

▬ Proposed Route

— Proposed Alignment

Swift County Zoning

■ Ag Preservation District 1

■ Ag Preservation District 2

■ Municipality

■ Shoreland

■ Urban Development District

▭ City Boundary

▭ Township Boundary

▭ County Boundary

Source: Z:\Clients\E_HIGRE\Appleton_Benson\ArcGIS\Permitting\State\PU\Route\Figures\Appleton_Benson_RP_Figures.aprx

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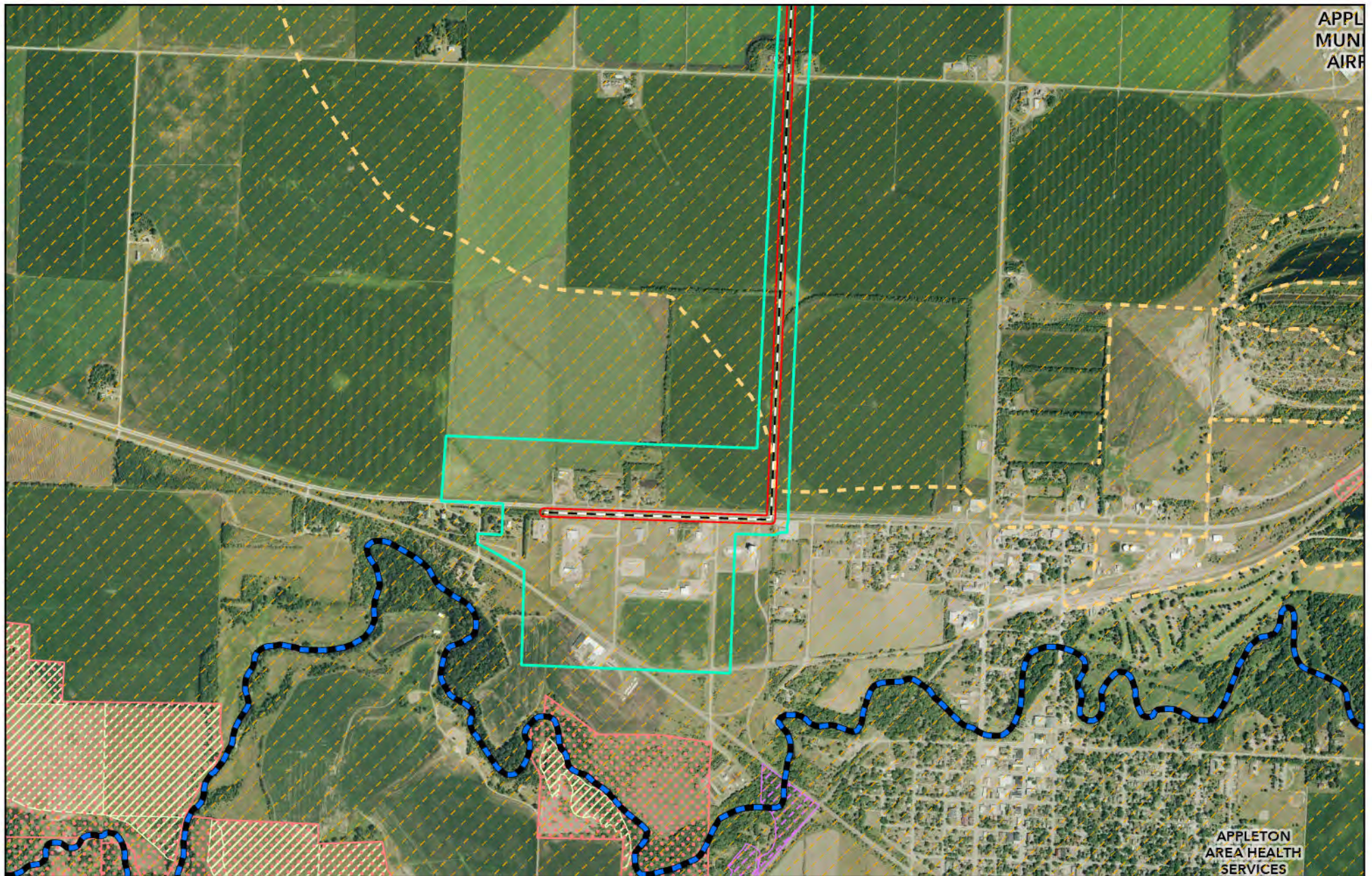
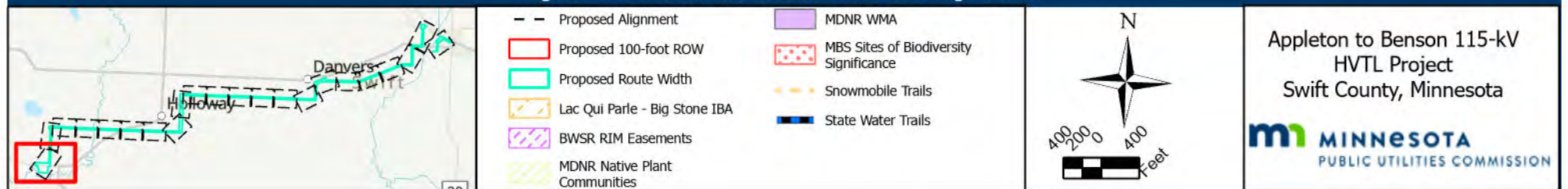


Figure 7: Recreation and Wildlife Resources: Page 1 of 22





APPLETON
MUNICIPAL
AIRPORT

Figure 7: Recreation and Wildlife Resources: Page 2 of 22





Figure 7: Recreation and Wildlife Resources: Page 3 of 22



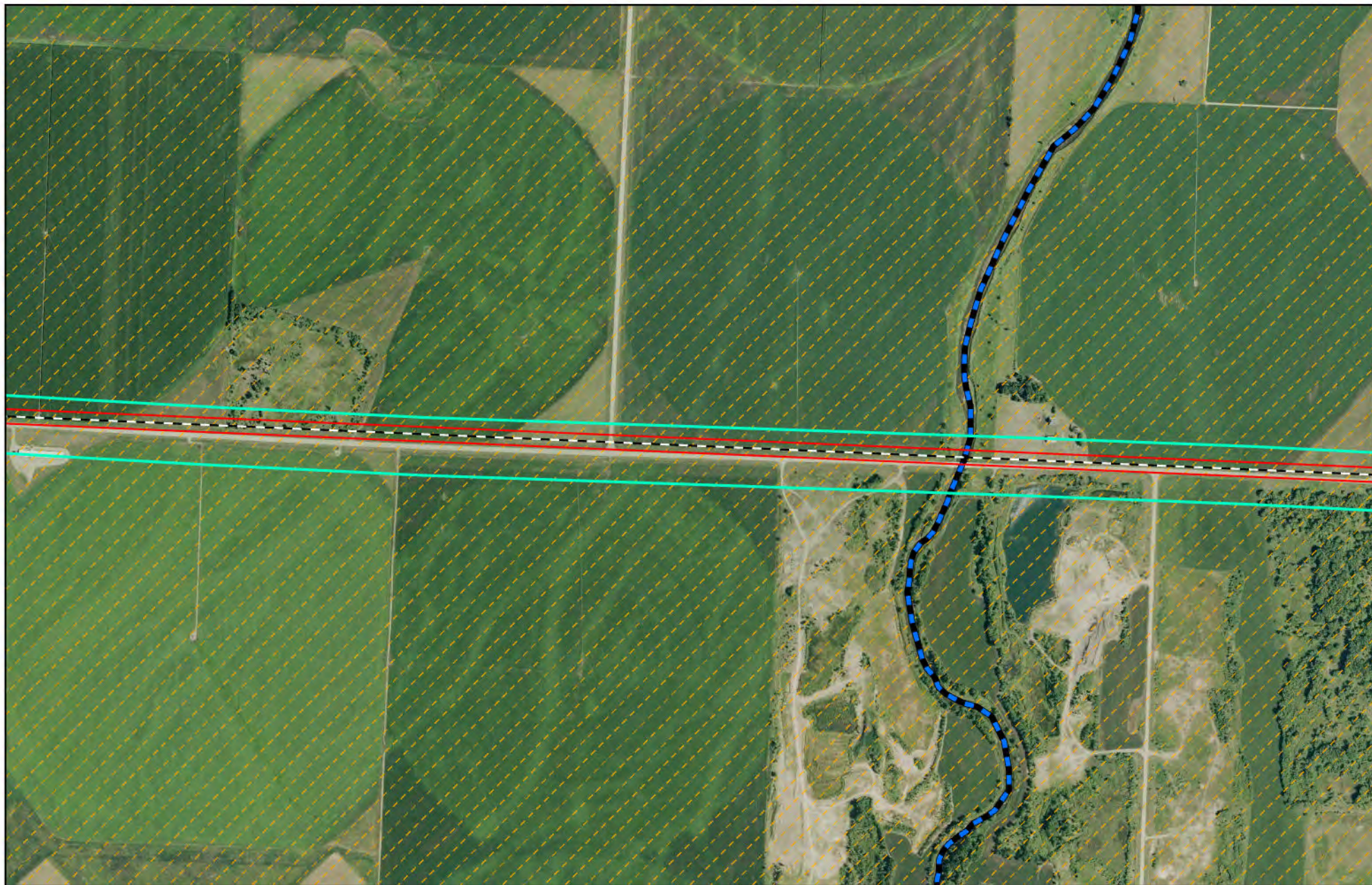


Figure 7: Recreation and Wildlife Resources: Page 4 of 22





Figure 7: Recreation and Wildlife Resources: Page 5 of 22





Figure 7: Recreation and Wildlife Resources: Page 6 of 22





Figure 7: Recreation and Wildlife Resources: Page 7 of 22





Figure 7: Recreation and Wildlife Resources: Page 8 of 22





Figure 7: Recreation and Wildlife Resources: Page 9 of 22





Figure 7: Recreation and Wildlife Resources: Page 10 of 22





Figure 7: Recreation and Wildlife Resources: Page 11 of 22





Figure 7: Recreation and Wildlife Resources: Page 12 of 22





Figure 7: Recreation and Wildlife Resources: Page 13 of 22





Figure 7: Recreation and Wildlife Resources: Page 14 of 22





Figure 7: Recreation and Wildlife Resources: Page 15 of 22



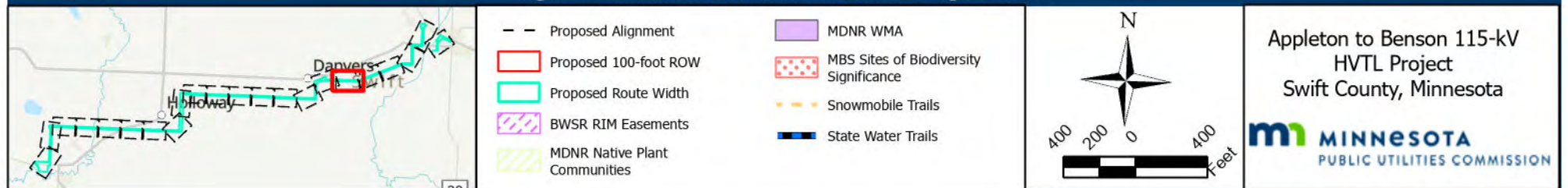


Figure 7: Recreation and Wildlife Resources: Page 16 of 22





Figure 7: Recreation and Wildlife Resources: Page 17 of 22



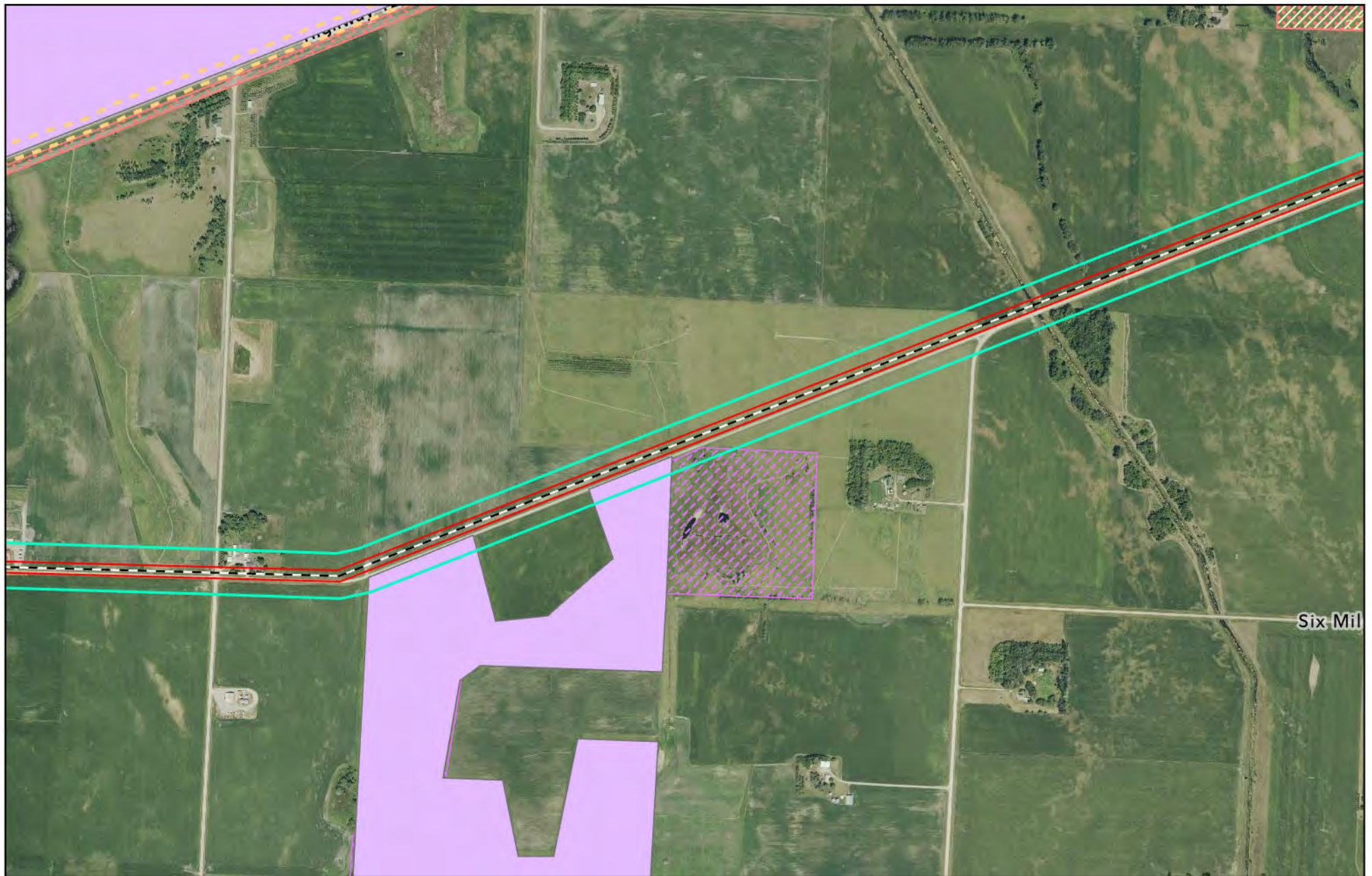


Figure 7: Recreation and Wildlife Resources: Page 18 of 22



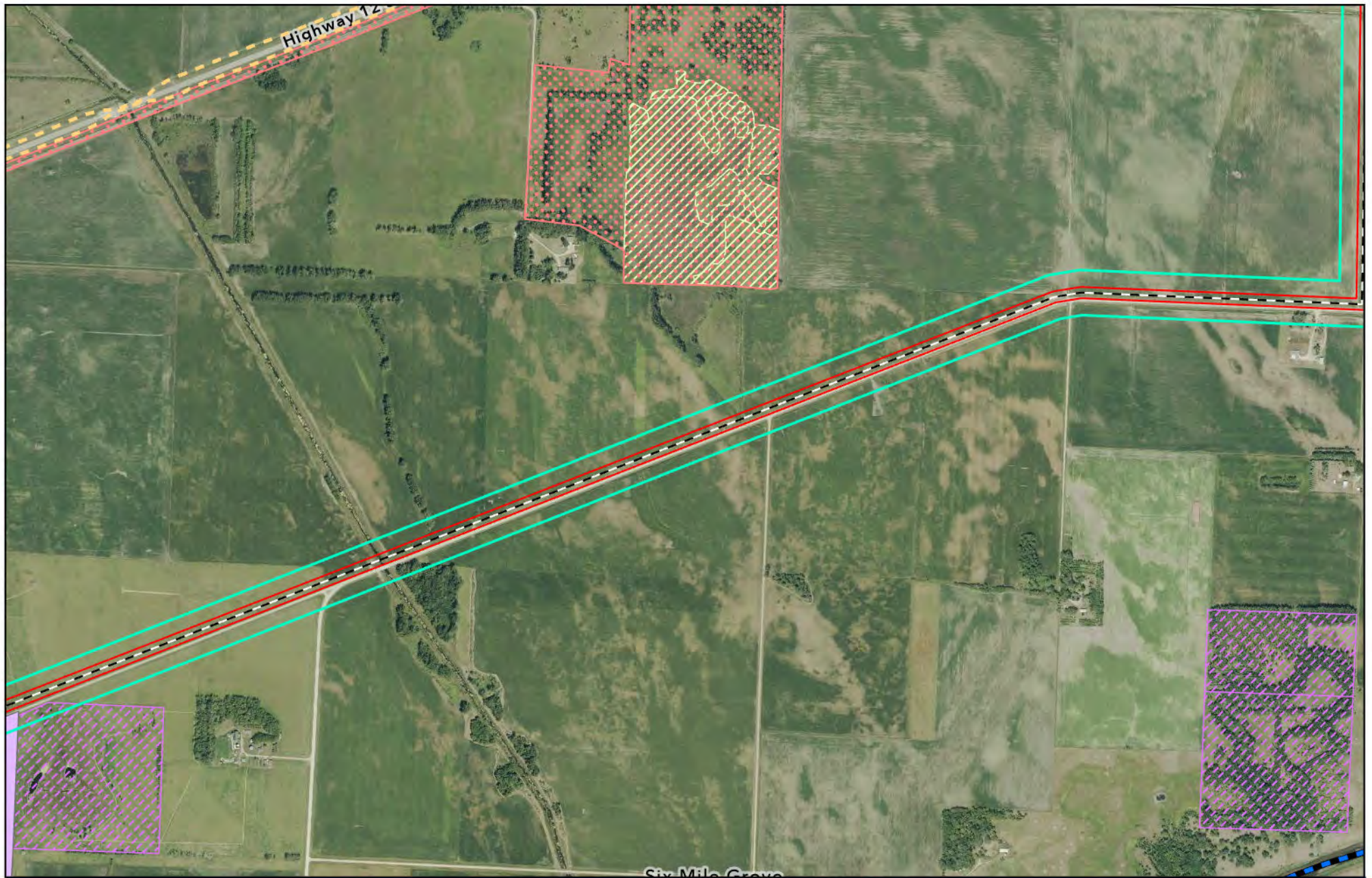


Figure 7: Recreation and Wildlife Resources: Page 19 of 22



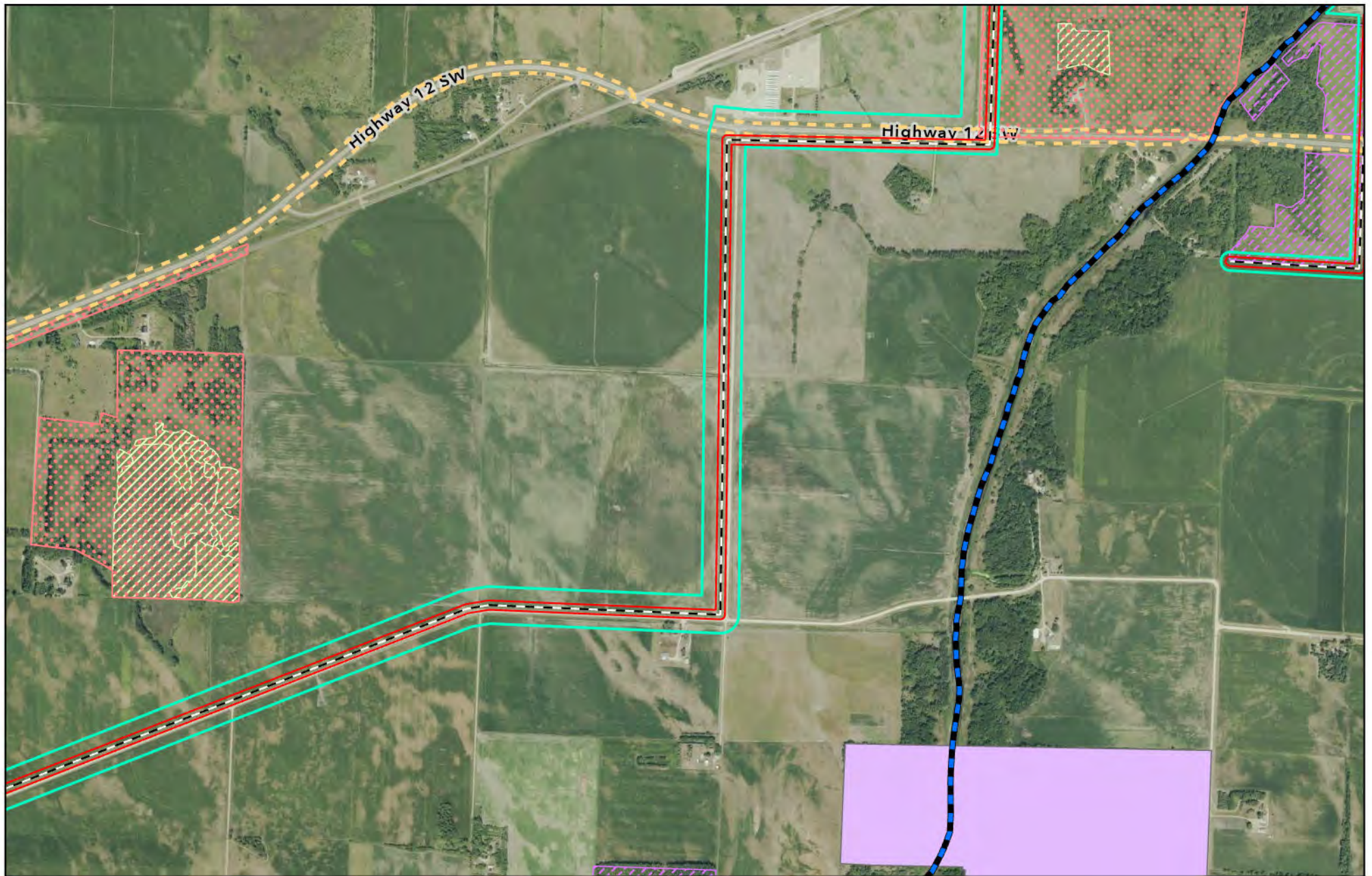


Figure 7: Recreation and Wildlife Resources: Page 20 of 22



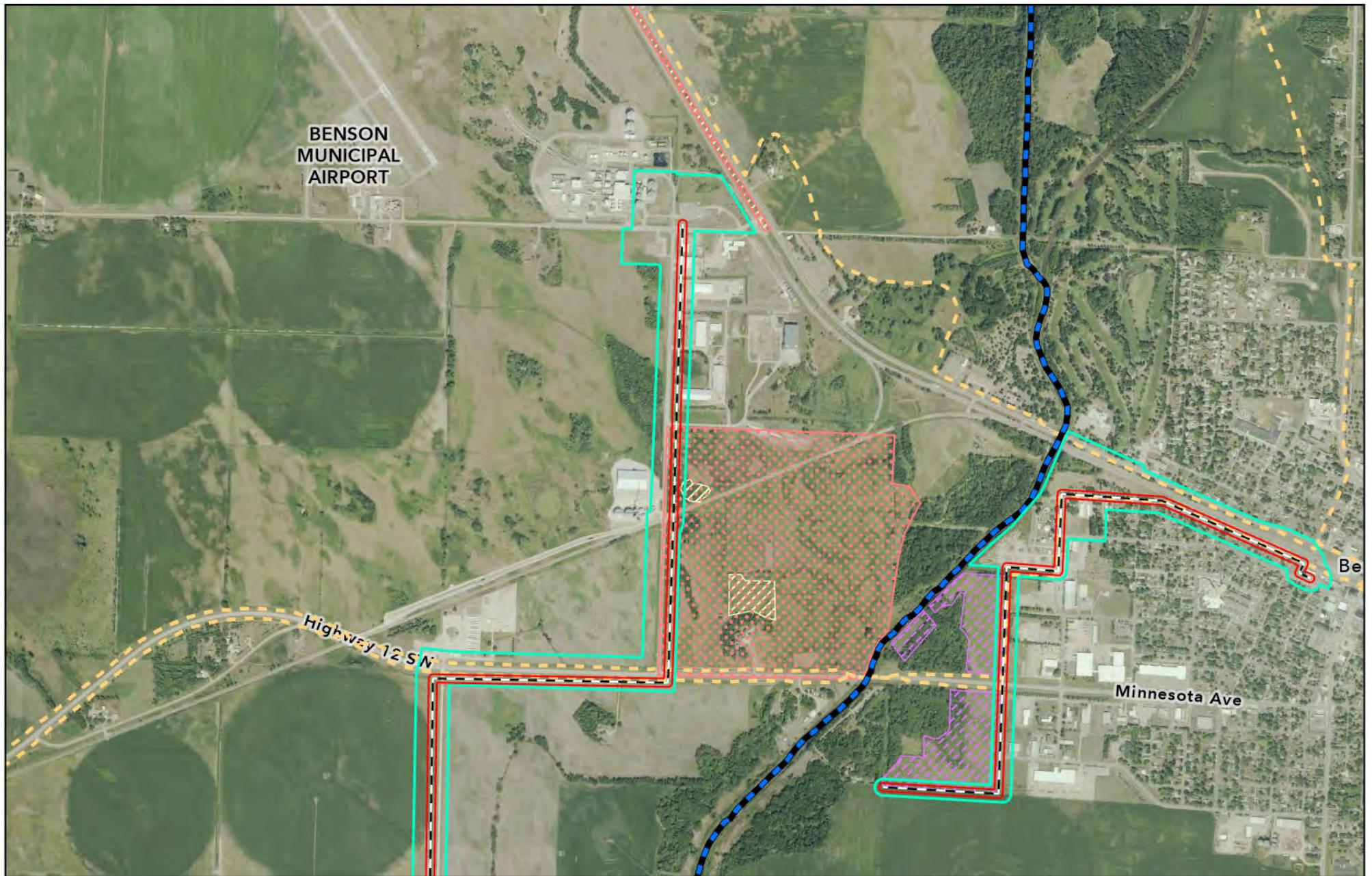


Figure 7: Recreation and Wildlife Resources: Page 21 of 22



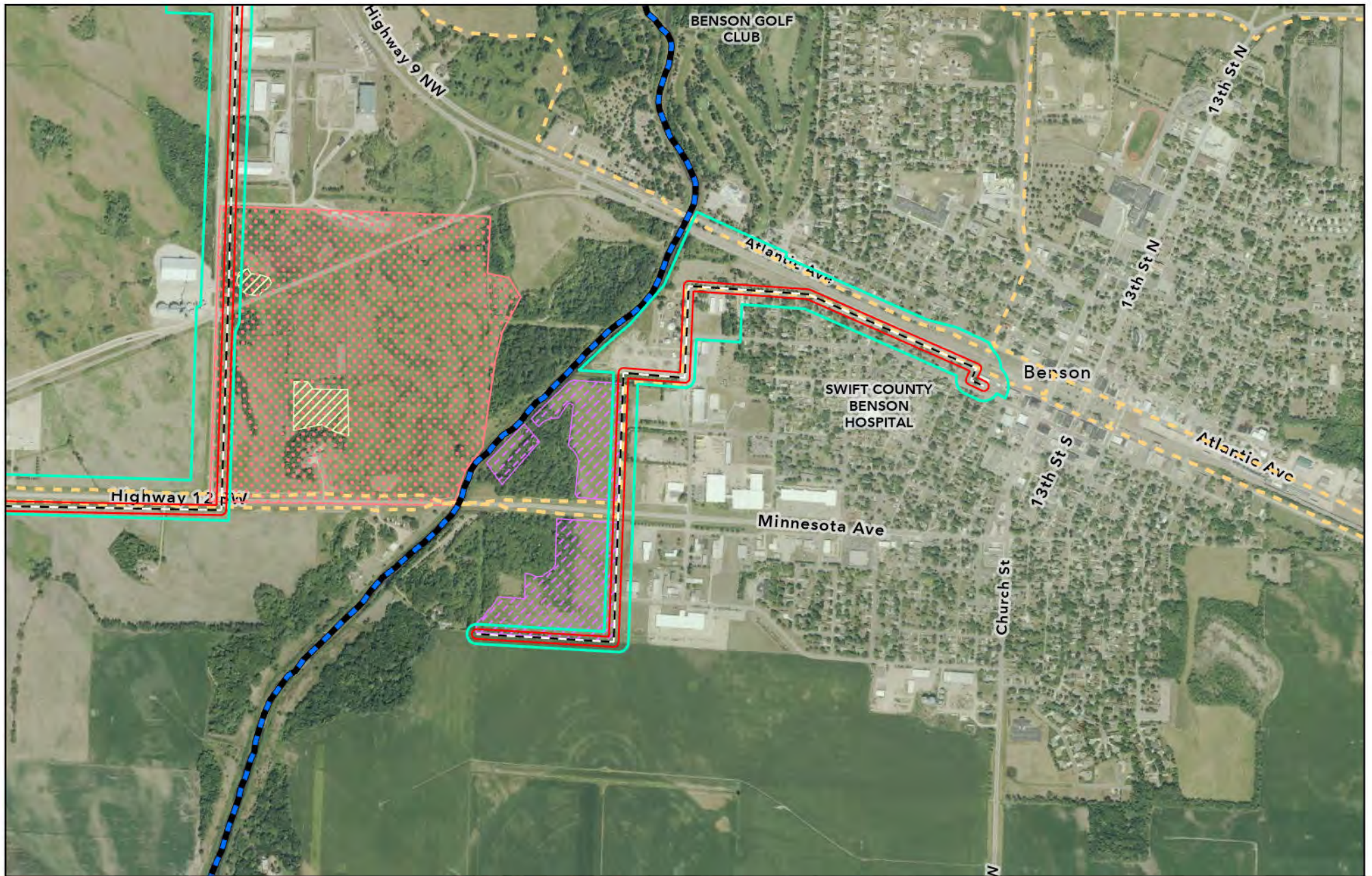
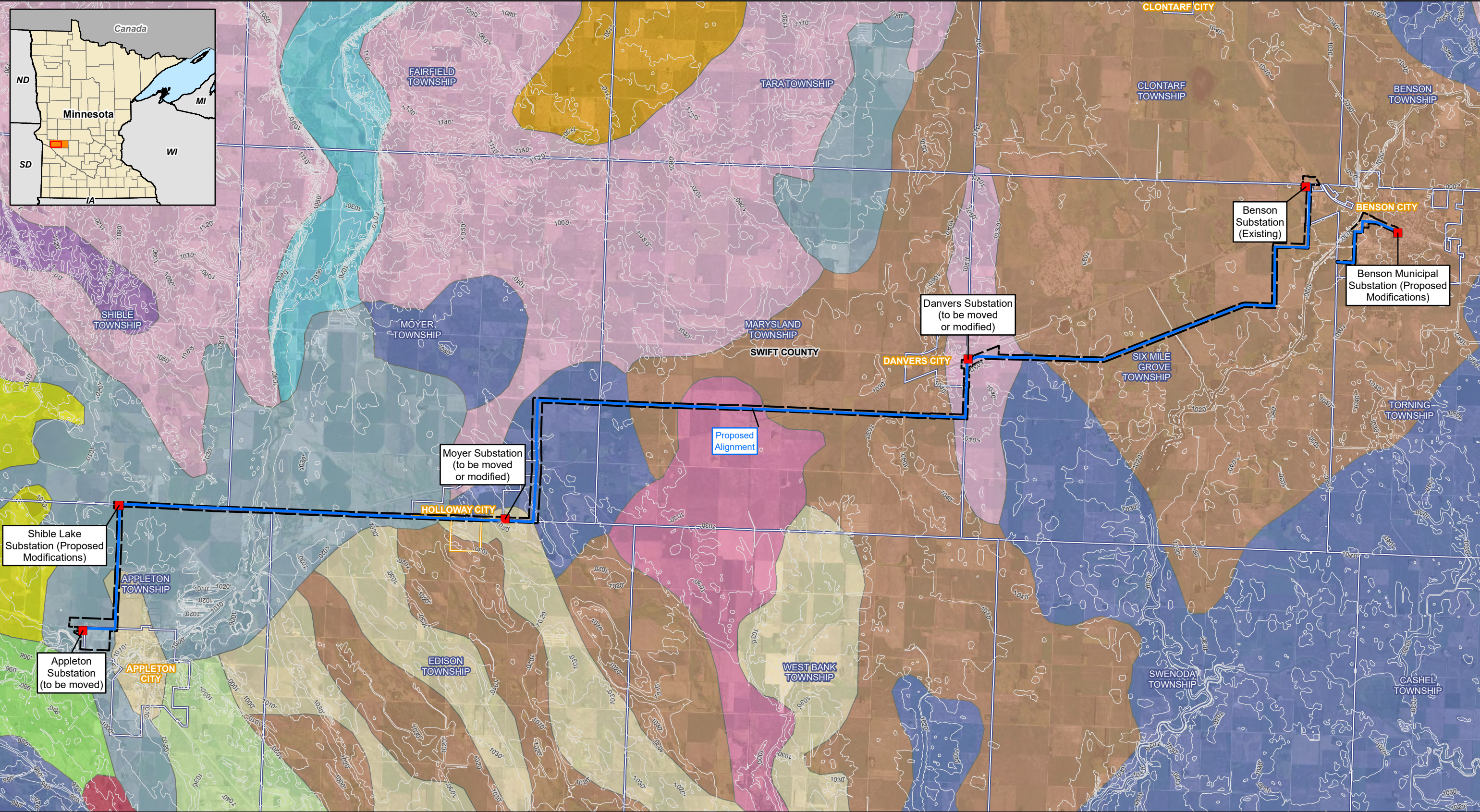


Figure 7: Recreation and Wildlife Resources: Page 22 of 22





02Miles

1 inch = 2 miles

Figure 8: Soils and Topography

Appleton to Benson 115-kV Transmission Line Project

Swift County, Minnesota

Great River Energy

Substation

Proposed Alignment

Proposed Route

10' Contour

City Boundary

Township Boundary

County Boundary

Soils (STATSGO)

Langhei-Hamerly-Barnes (s3467)

Maddock-Egeland (s3520)

Marysland-Esteline-Egeland (s3534)

Marysland-Hecla-Arveson (s3523)

Parnell-Hamerly-Aazdahl (s3485)

Spottswood-Sioux-Renshaw (s3518)

Sverdrup-Rothsay-Egeland (s3525)

Sverdrup-Shakopee-McDonaldsville (s3528)

Syrene-Sioux-Lohnes-Arvilla (s3445)

Tara-Parnell-Hamerly (s3519)

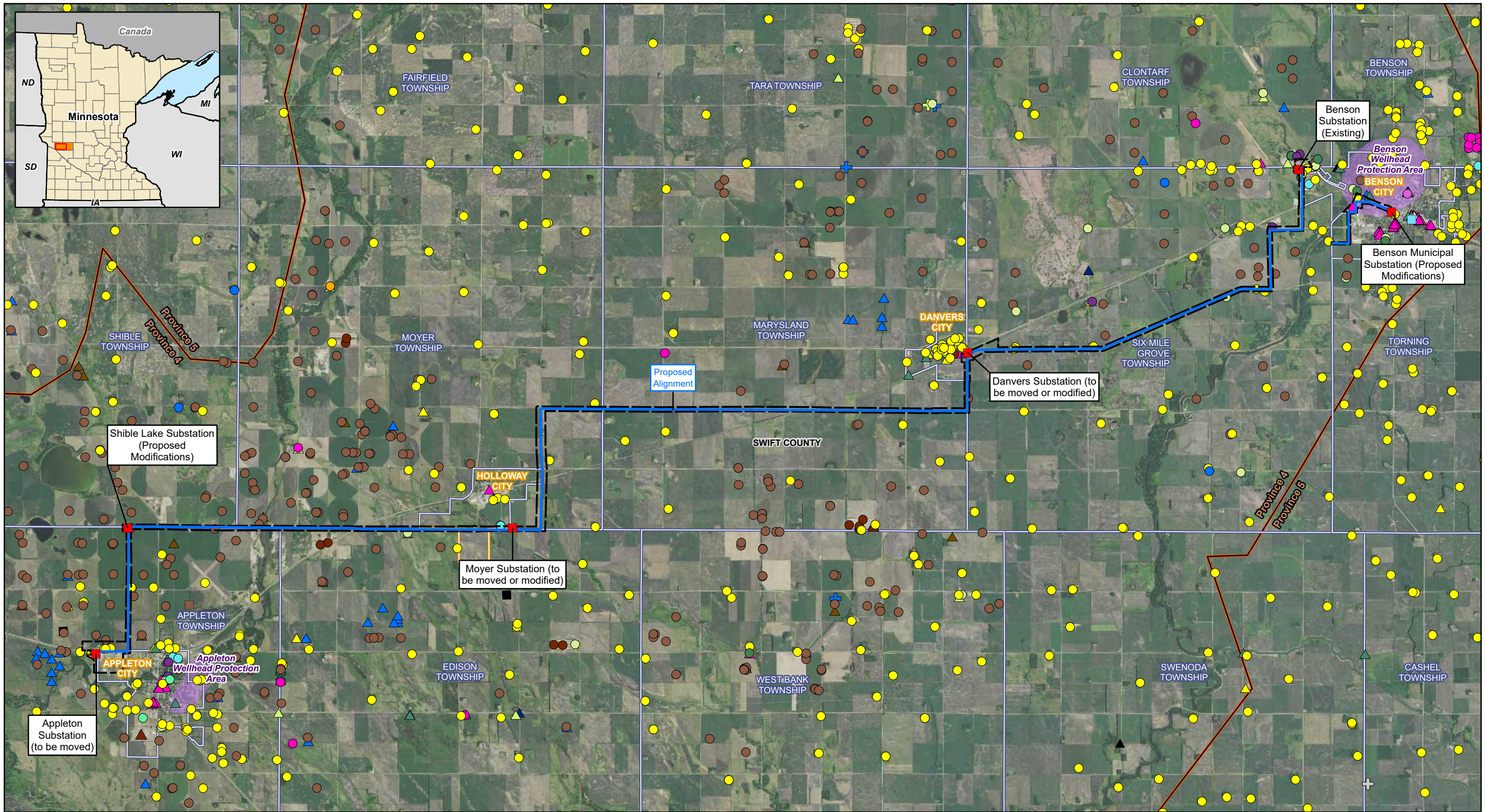
Tara-Spicer-Doland-Colvin (s3522)

Webster-Ves-Normanica-Canisteo (s3529)

Winger-Vallers-Hamerly (s3521)

Source: Z:\Clients\E_HIGRE\Appleton_Benson\ArcGIS\Permitting\State\PUC\Route\Figures\Appleton_Benson_RP_Figures.aprx

Date: (10/24/2024)



02 Miles

1 inch = 2 miles

N

E

S

W

Great River Energy

Substation

Proposed Alignment

Proposed Route

Calcareous Fen

Groundwater Province

Wellhead Protection Area

City Boundary

Township Boundary

County Boundary

County Well Index - Located Well

Active

Inactive

Sealed

Unknown

Abandoned

Commercial

Domestic

Elevator

Environmental Bore Hole

Heat Pump

Industrial

Irrigation

Monitor Well

Observation Well

Other (specify in remarks)

Piezometer

Recovery Well

Scientific Investigation

Test Well

Unknown

Figure 9: Groundwater Features

Appleton to Benson 115-kV Transmission Line Project

Swift County, Minnesota

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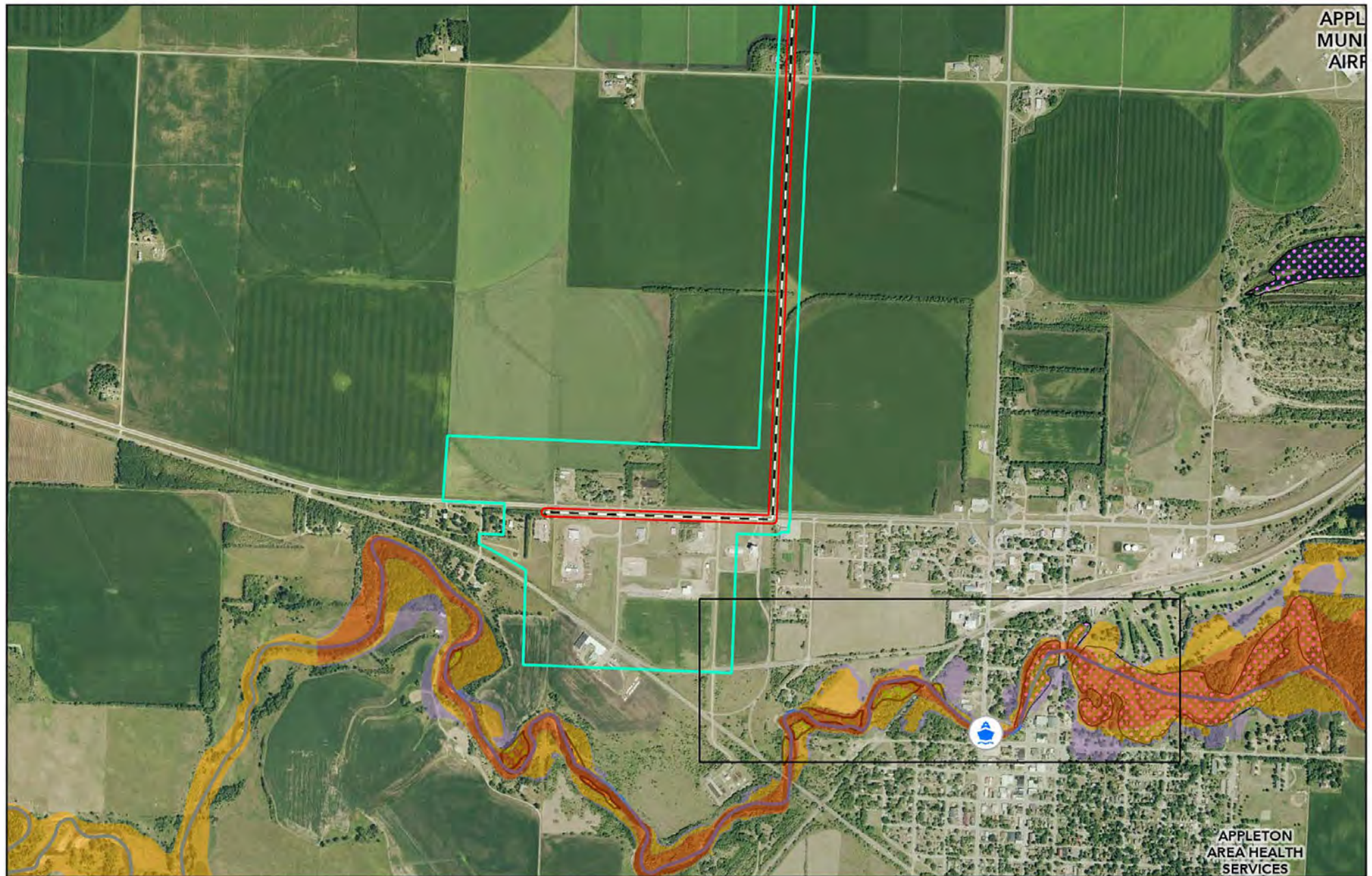


Figure 10: Surface Water Resources: Page 1 of 22

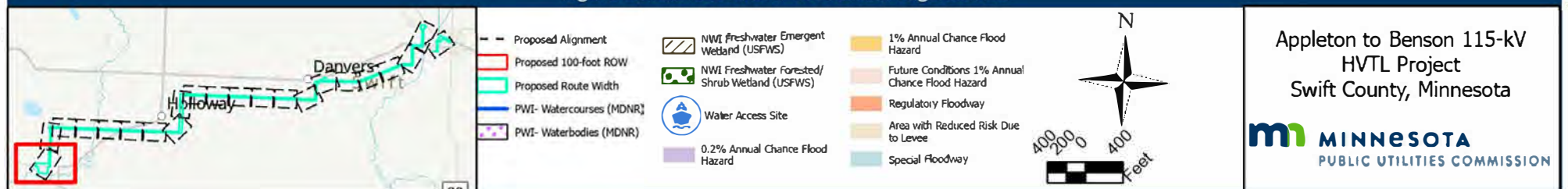




Figure 10: Surface Water Resources: Page 2 of 22

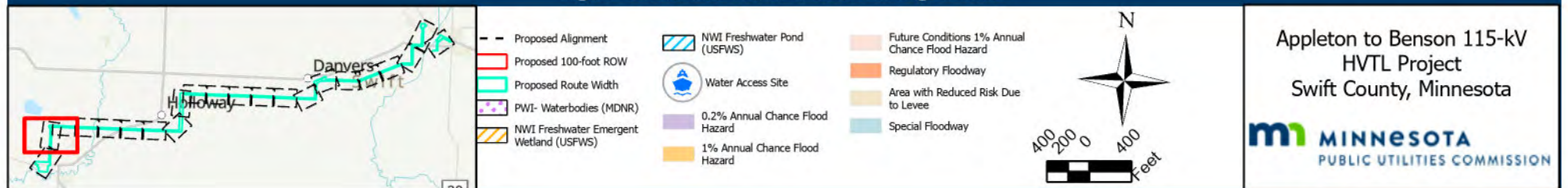
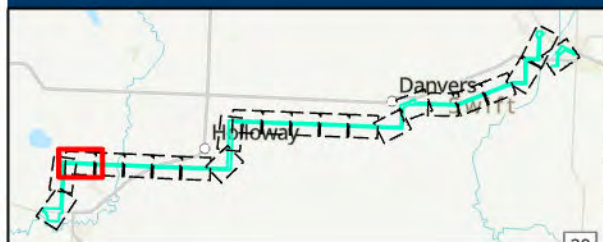
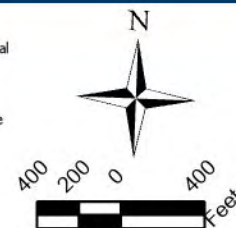




Figure 10: Surface Water Resources: Page 3 of 22



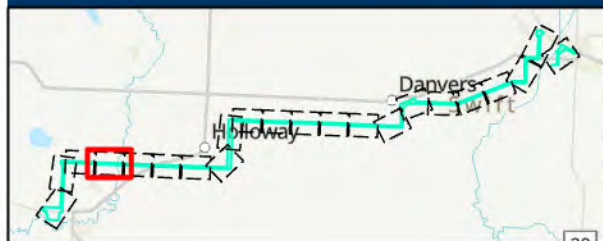
- Proposed Alignment
- Proposed 100-foot ROW
- Proposed Route Width
- NWI Freshwater Emergent Wetland (USFWS)
- NWI Freshwater Pond (USFWS)
- Water Access Site
- 0.2% Annual Chance Flood Hazard
- 1% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Area with Reduced Risk Due to Levee
- Special Floodway



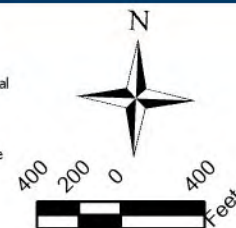
Appleton to Benson 115-kV
HVTL Project
Swift County, Minnesota



Figure 10: Surface Water Resources: Page 4 of 22



- Proposed Alignment
- Proposed 100-foot ROW
- Proposed Route Width
- PWI- Watercourses (MDNR)
- NWI Freshwater Emergent Wetland (USFWS)
- NWI Freshwater Forested/Shrub Wetland (USFWS)
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- Future Conditions 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Area with Reduced Risk Due to Levee
- Special Floodway



Appleton to Benson 115-kV
HVTL Project
Swift County, Minnesota

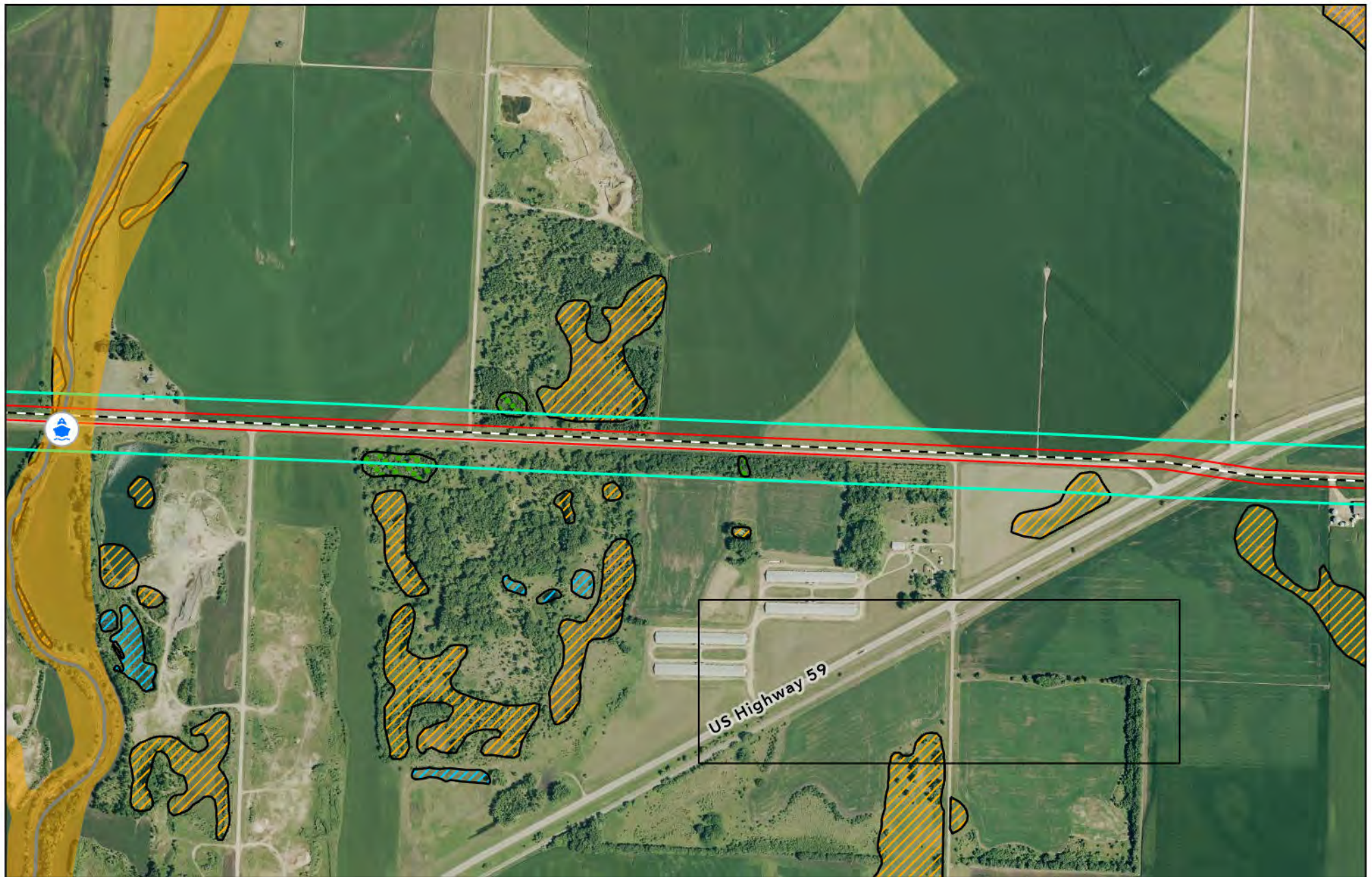
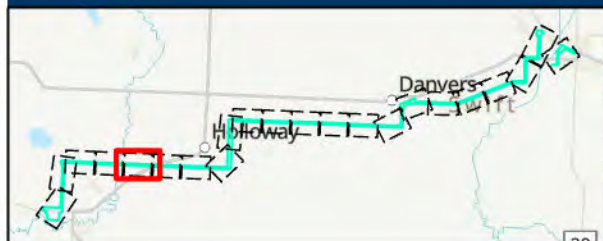
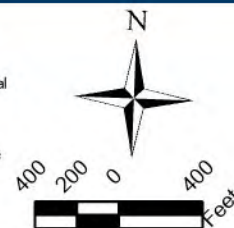


Figure 10: Surface Water Resources: Page 5 of 22



- Proposed Alignment
- Proposed 100-foot ROW
- Proposed Route Width
- PWI- Watercourses (MDNR)
- NWI Freshwater Emergent Wetland (USFWS)
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- Future Conditions 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Area with Reduced Risk Due to Levee
- Special Floodway



Appleton to Benson 115-kV
HVTL Project
Swift County, Minnesota

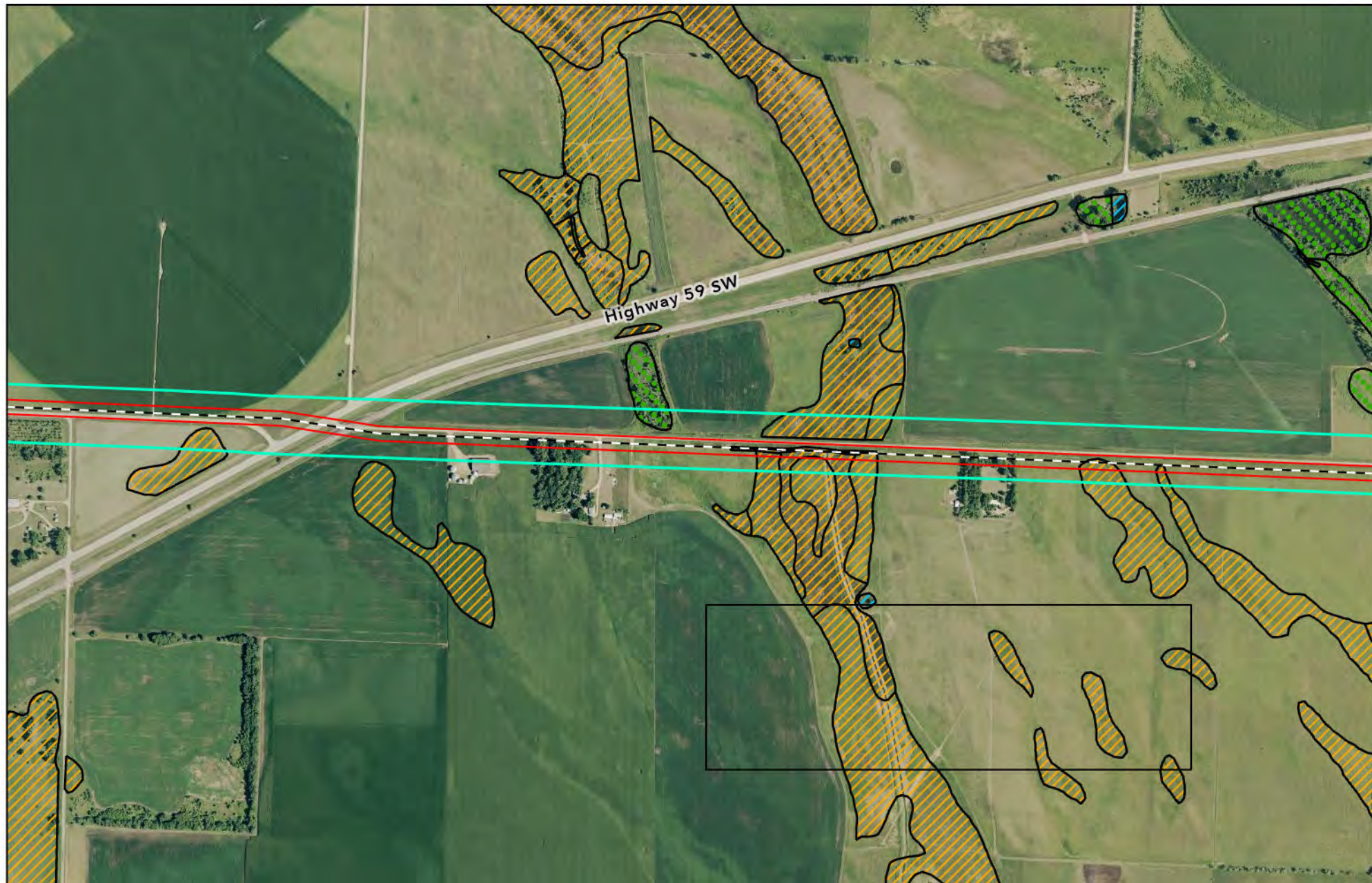
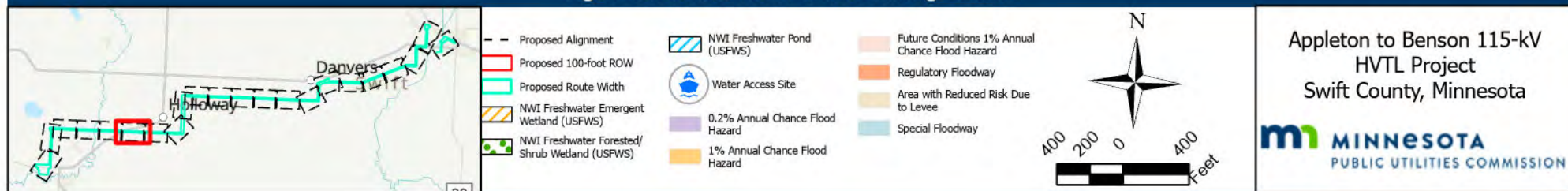


Figure 10: Surface Water Resources: Page 6 of 22



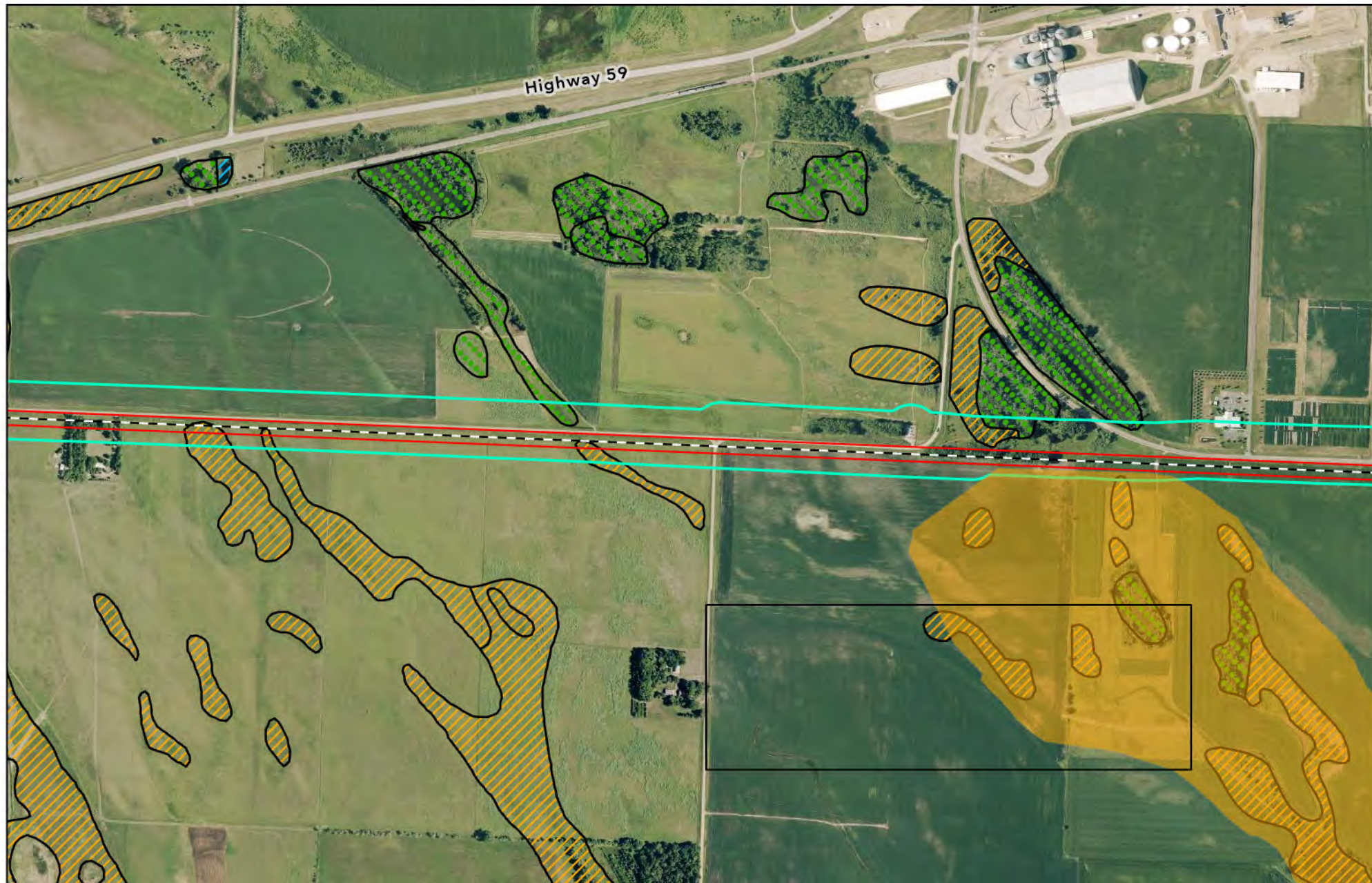
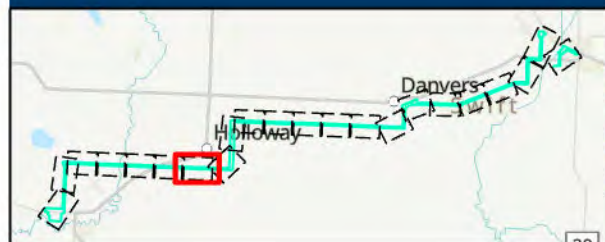
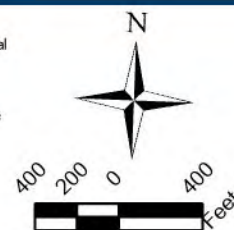


Figure 10: Surface Water Resources: Page 7 of 22



- | | | |
|---|--|---|
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|---|--|---|



Appleton to Benson 115-kV
HVTL Project
Swift County, Minnesota

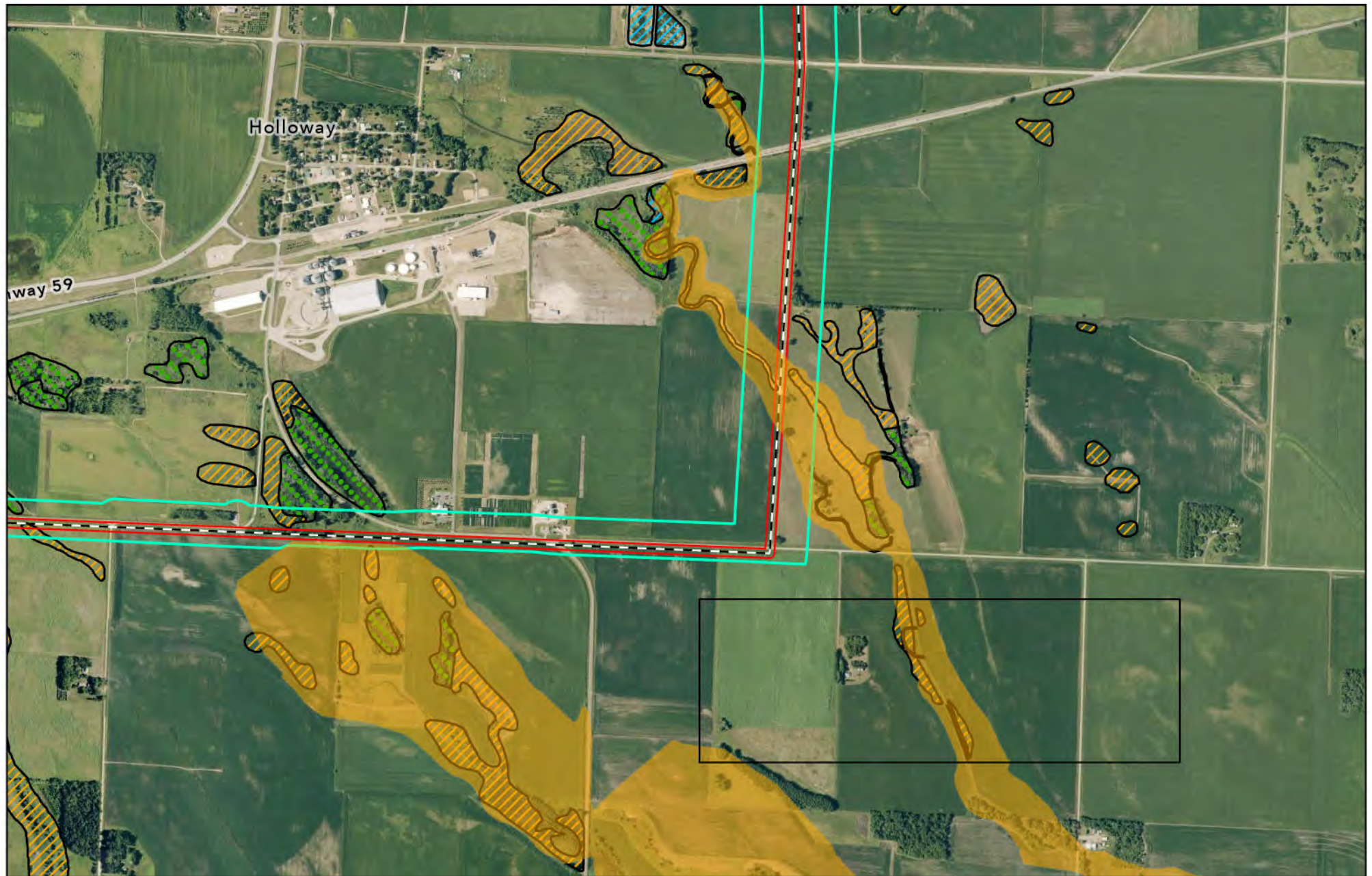
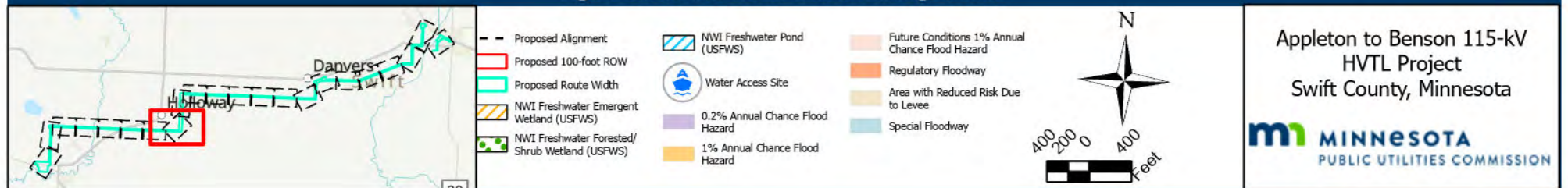


Figure 10: Surface Water Resources: Page 8 of 22



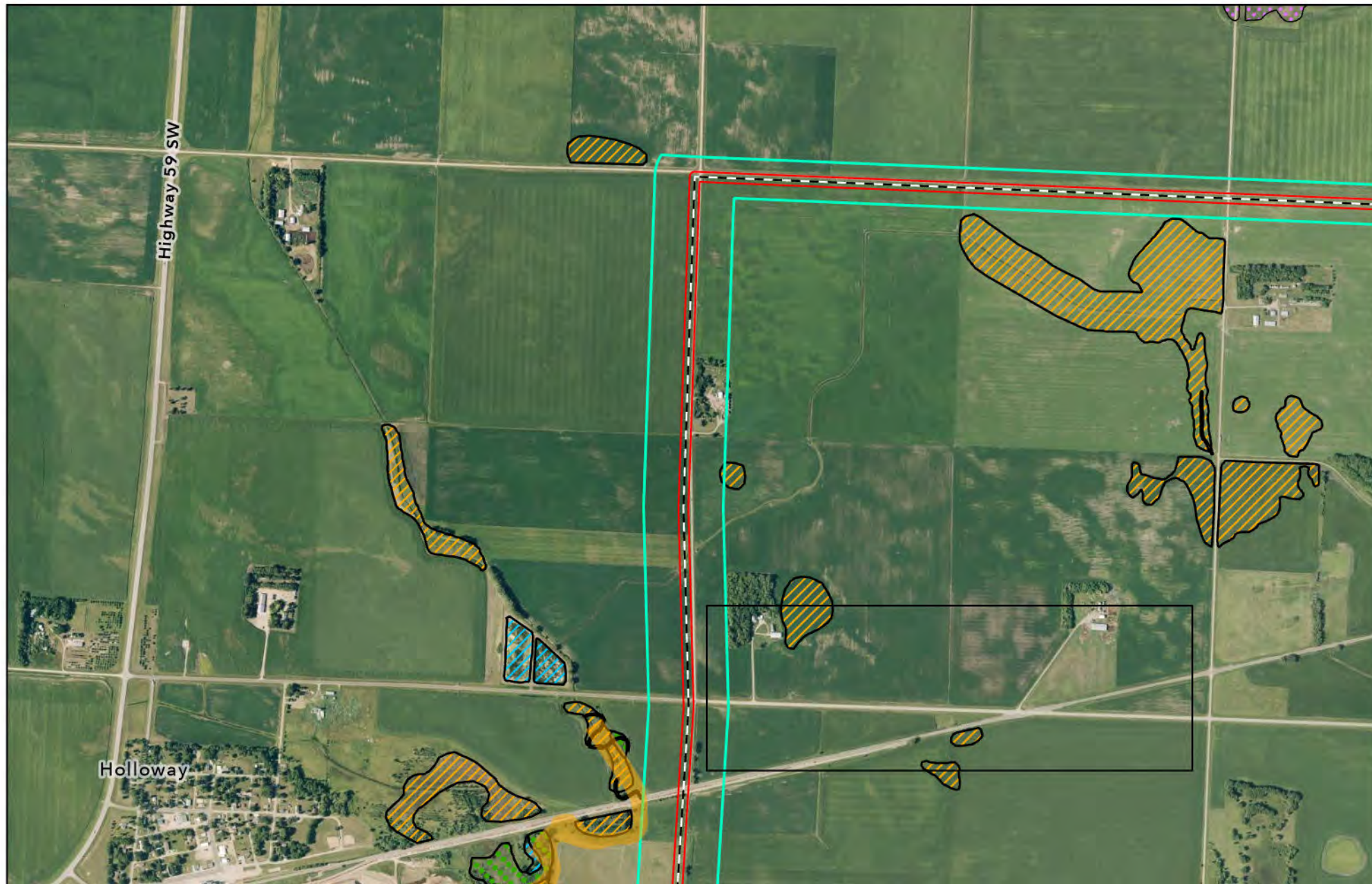


Figure 10: Surface Water Resources: Page 9 of 22



- Proposed Alignment
- Proposed 100-foot ROW
- Proposed Route Width
- PWI- Waterbodies (MDNR)
- NWI Freshwater Emergent Wetland (USFWS)
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- Future Conditions 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Area with Reduced Risk Due to Levee
- Special Floodway



Appleton to Benson 115-kV
HVTL Project
Swift County, Minnesota

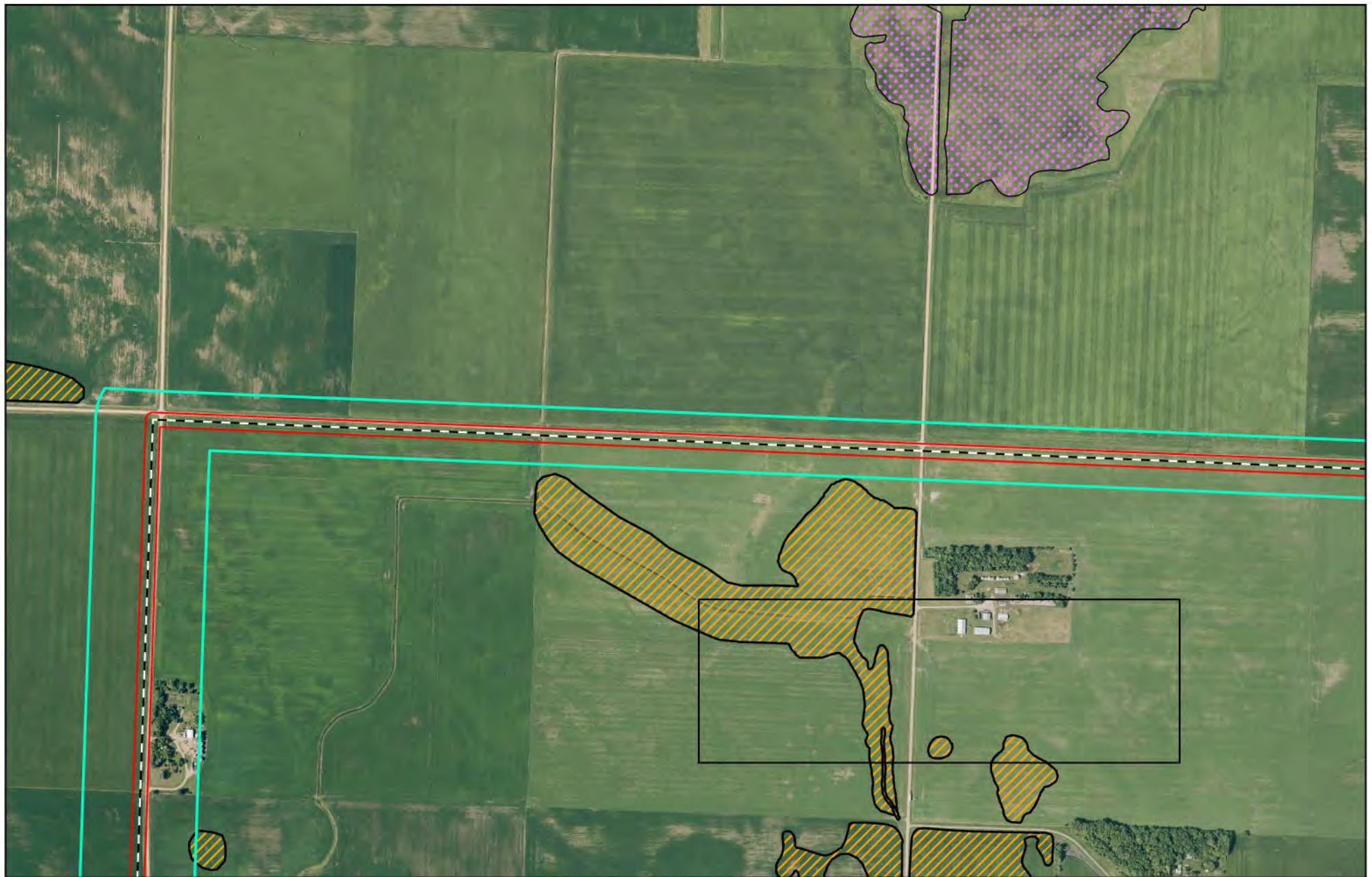


Figure 10: Surface Water Resources: Page 10 of 22



- Proposed Alignment
- Proposed 100-foot ROW
- Proposed Route Width
- PWI- Waterbodies (MDNR)
- NWI Freshwater Emergent Wetland (USFWS)



Water Access Site



0.2% Annual Chance Flood Hazard



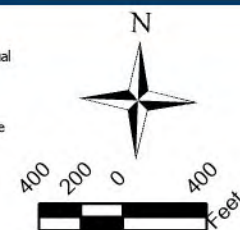
1% Annual Chance Flood Hazard

Future Conditions 1% Annual Chance Flood Hazard

Regulatory Floodway

Area with Reduced Risk Due to Levee

Special Floodway



Appleton to Benson 115-kV
HVTL Project
Swift County, Minnesota

MINNESOTA
PUBLIC UTILITIES COMMISSION

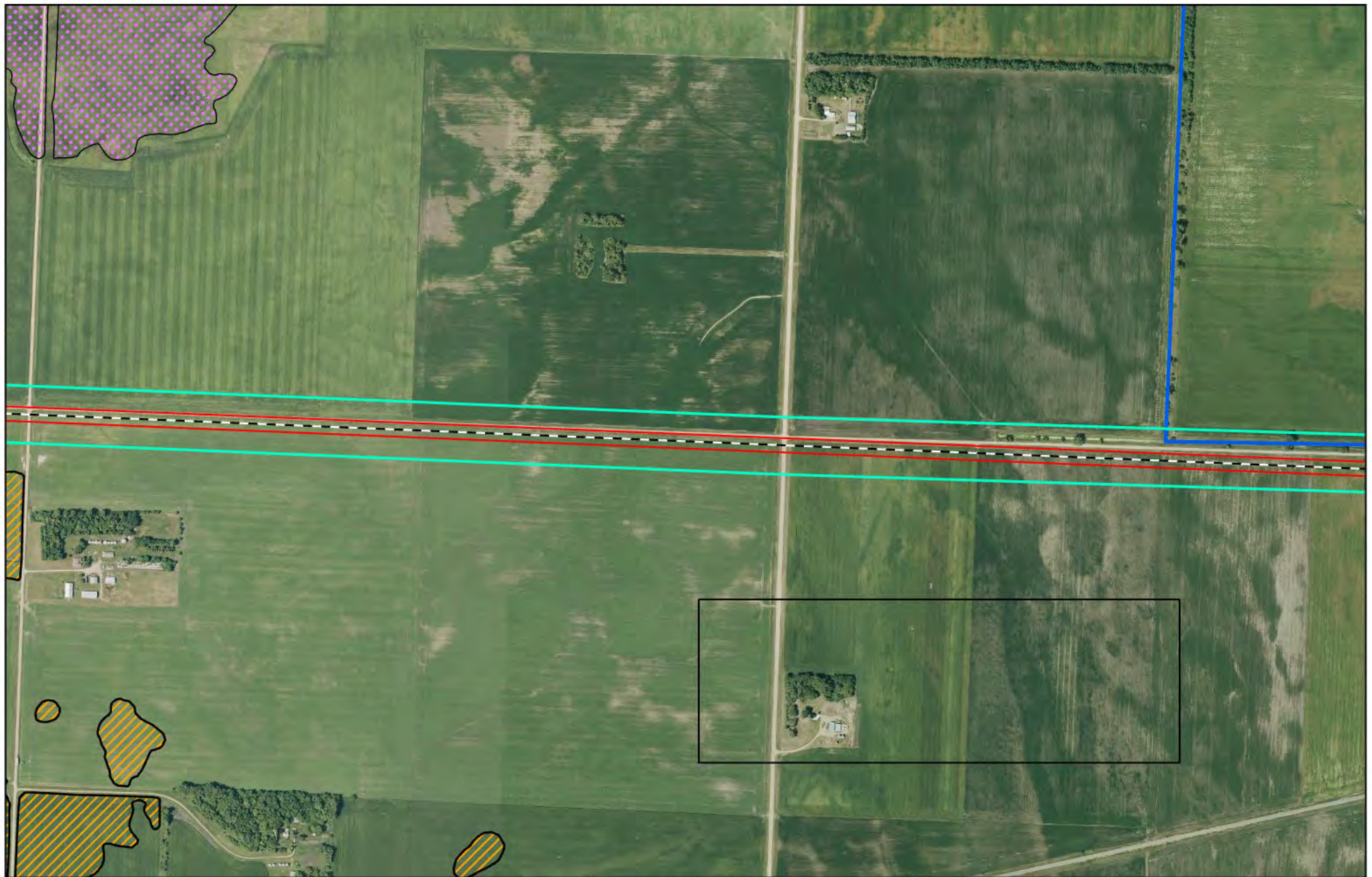
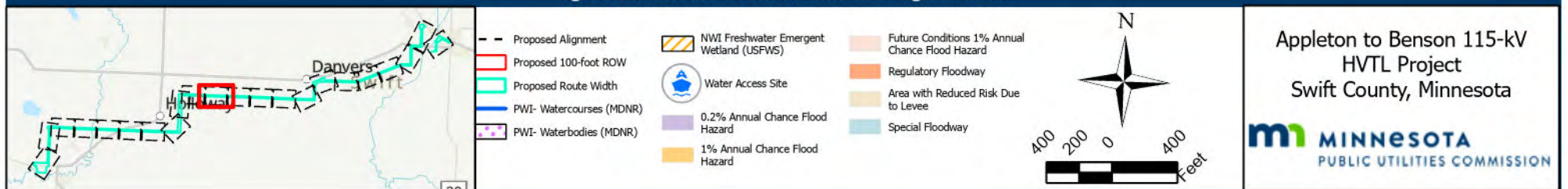


Figure 10: Surface Water Resources: Page 11 of 22



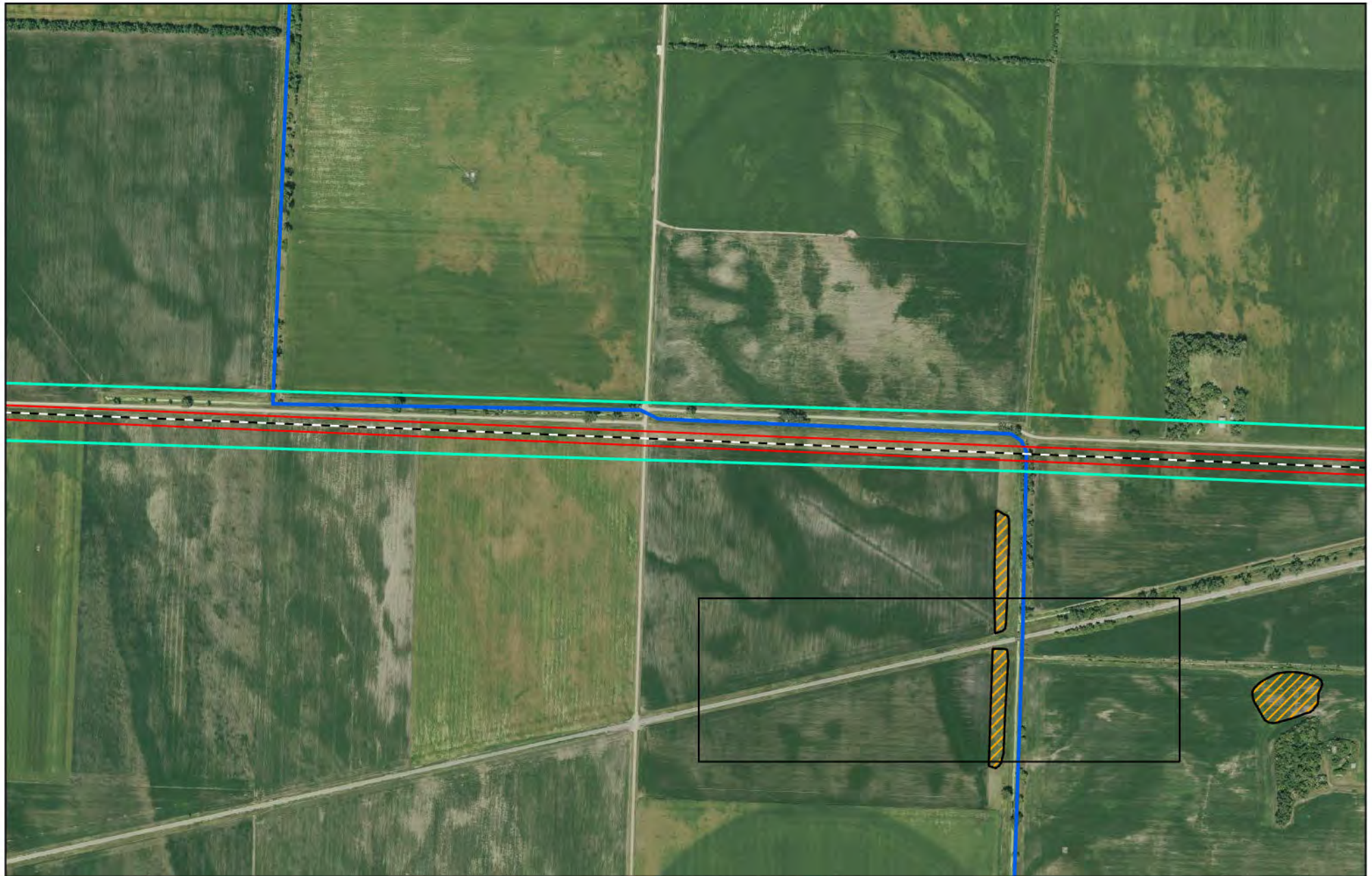
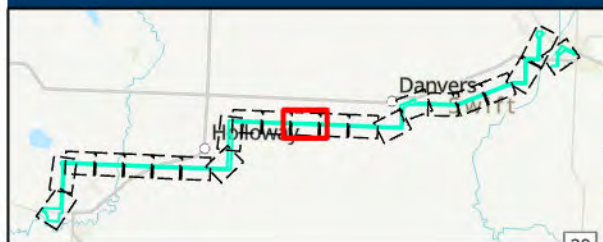
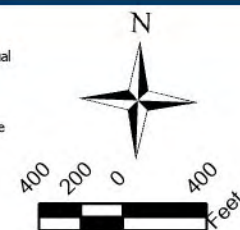


Figure 10: Surface Water Resources: Page 12 of 22



- Proposed Alignment
- Proposed 100-foot ROW
- Proposed Route Width
- PWI- Watercourses (MDNR)
- NWI Freshwater Emergent Wetland (USFWS)
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- Special Floodway



Appleton to Benson 115-kV
HVTL Project
Swift County, Minnesota



Figure 10: Surface Water Resources: Page 13 of 22

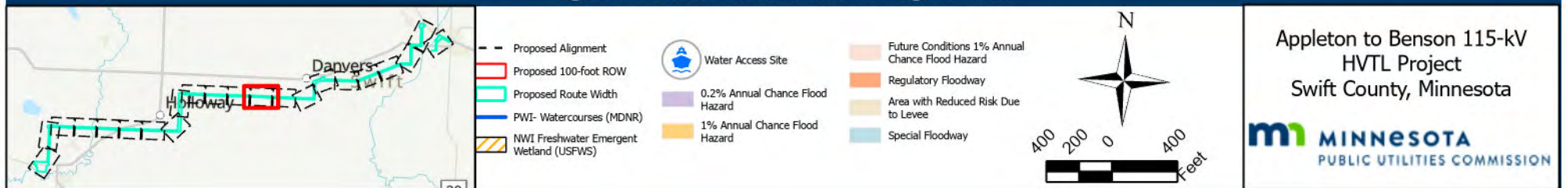
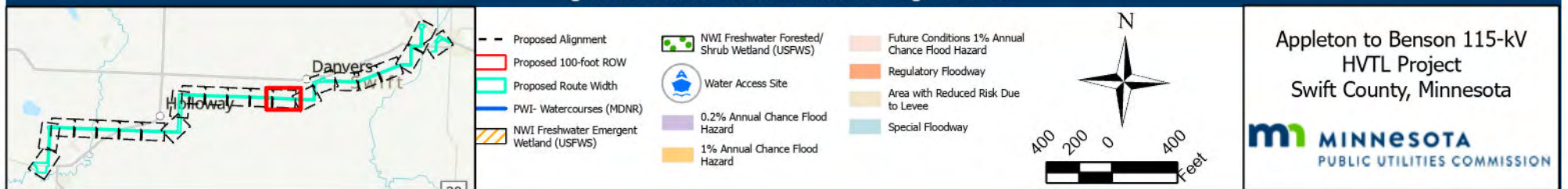




Figure 10: Surface Water Resources: Page 14 of 22



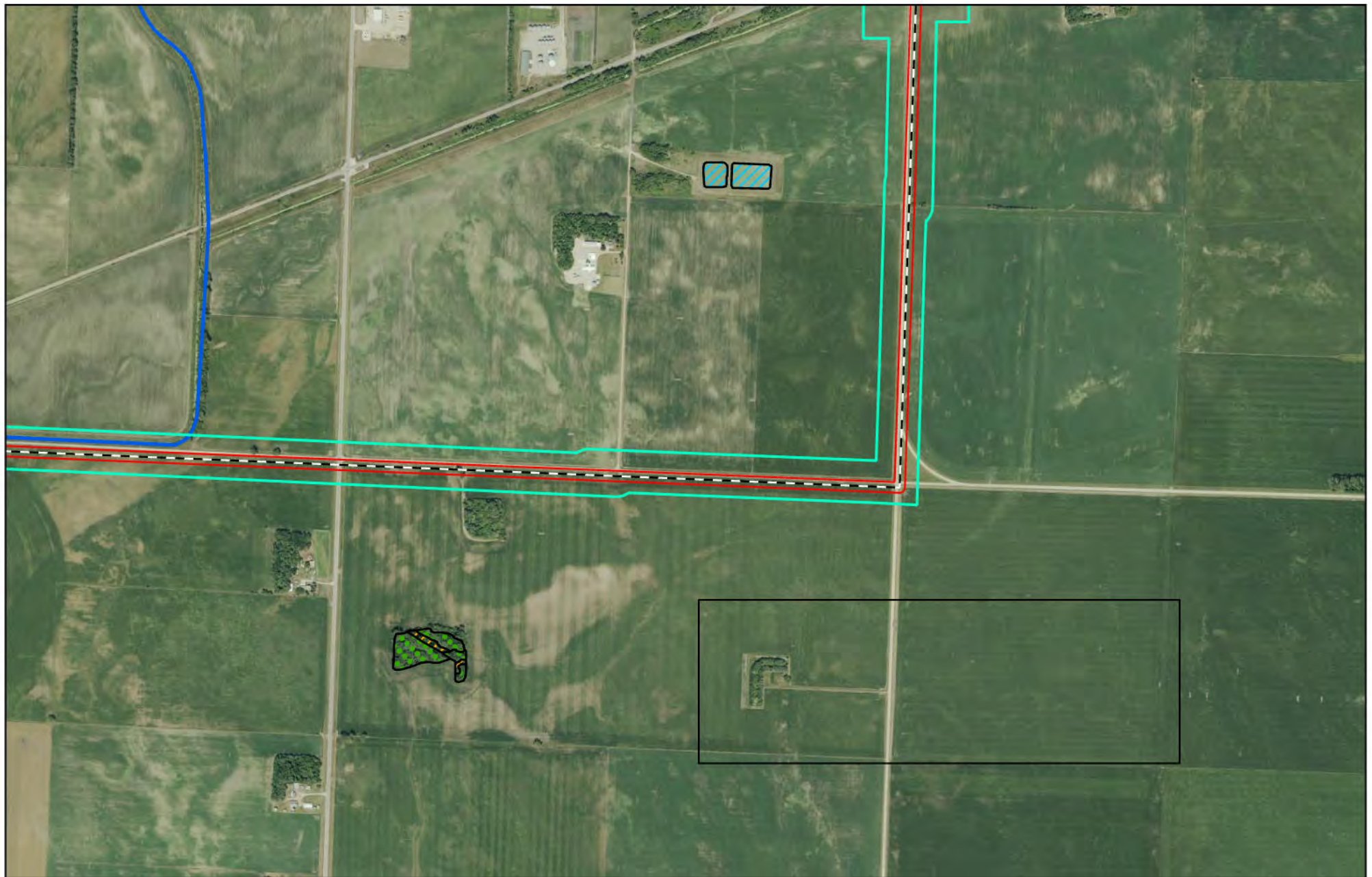


Figure 10: Surface Water Resources: Page 15 of 22

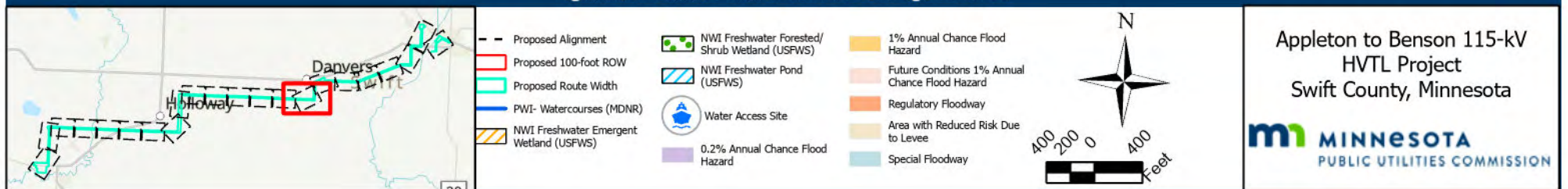
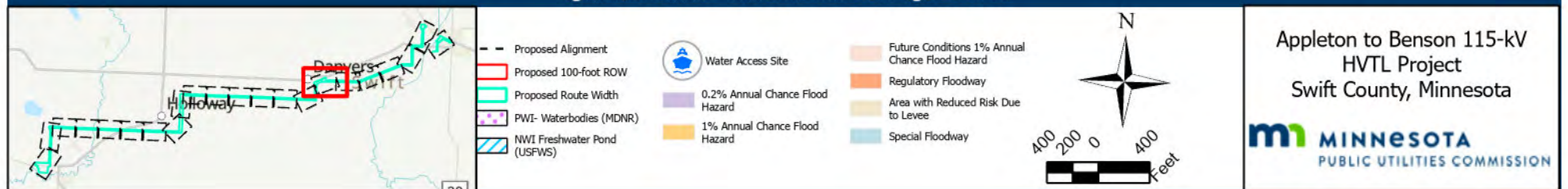




Figure 10: Surface Water Resources: Page 16 of 22



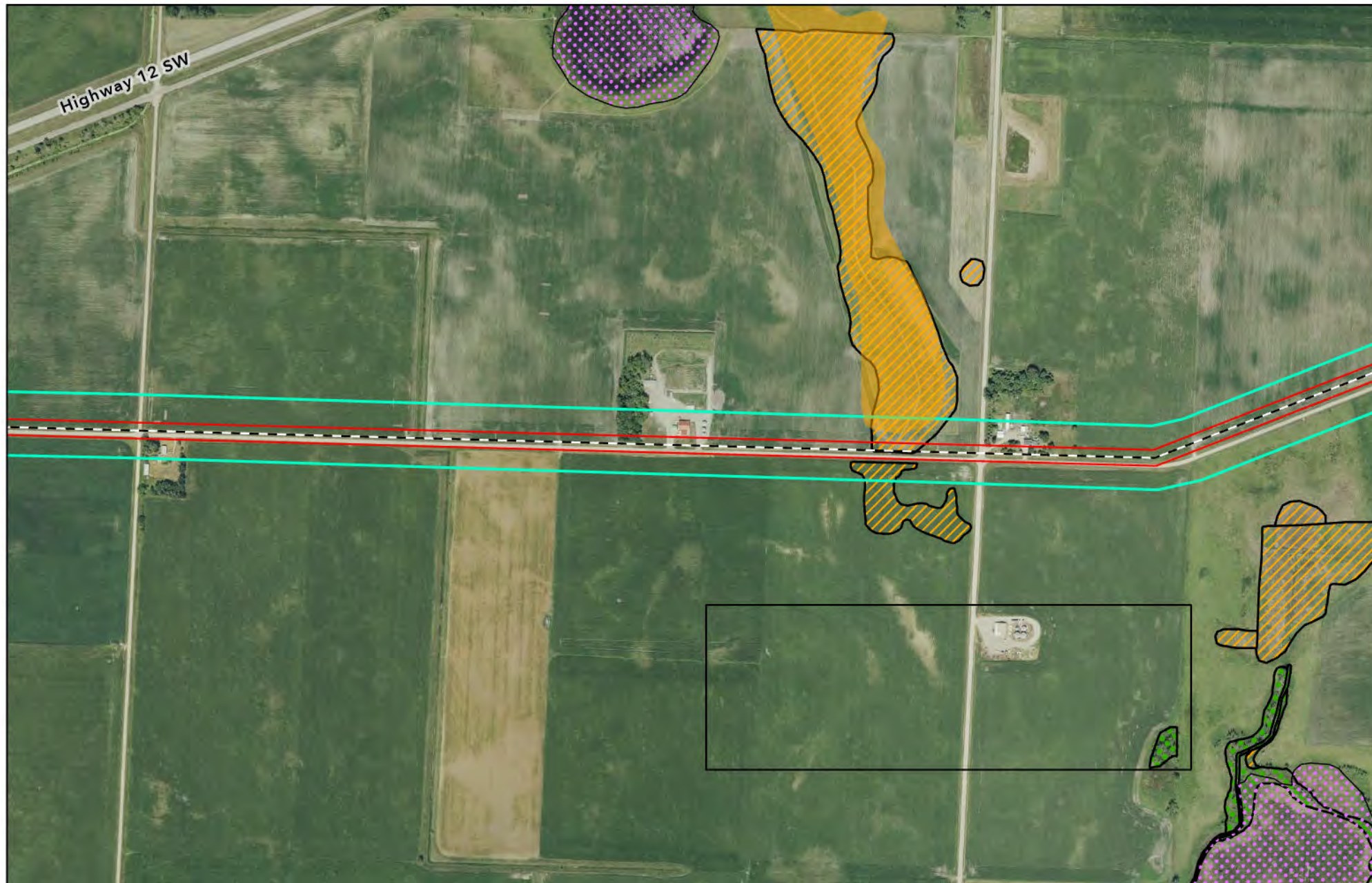
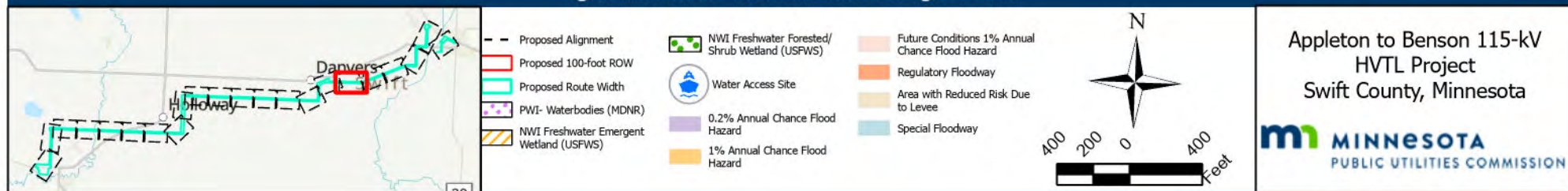


Figure 10: Surface Water Resources: Page 17 of 22



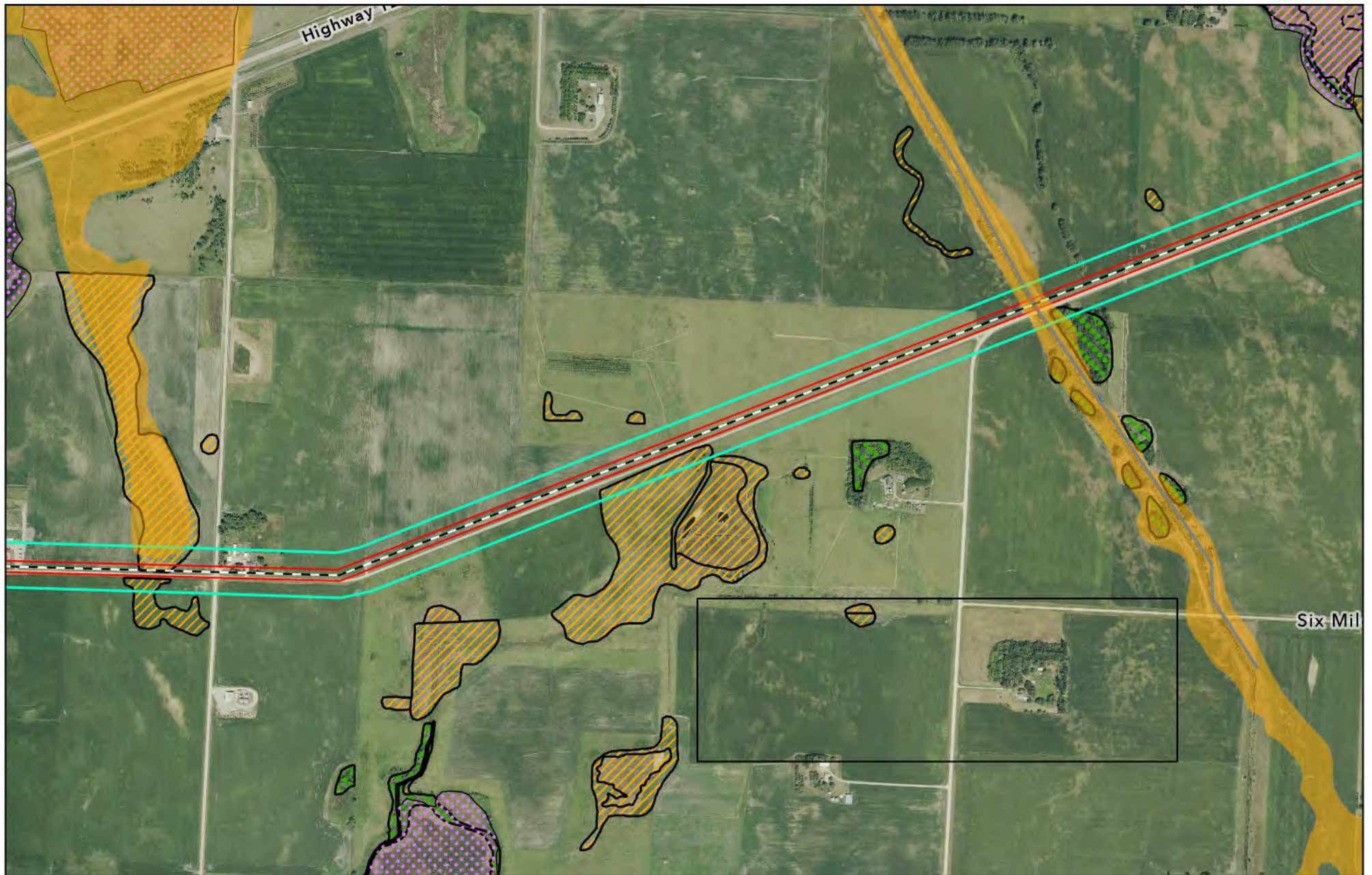
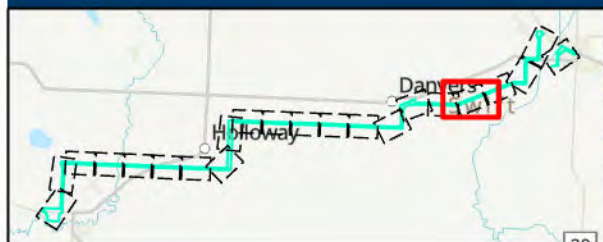
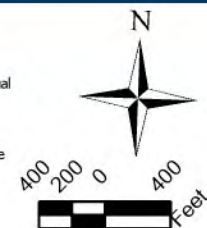


Figure 10: Surface Water Resources: Page 18 of 22



- Proposed Alignment
- Proposed 100-foot ROW
- Proposed Route Width
- PWI- Watercourses (MDNR)
- PWI- Waterbodies (MDNR)
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- 1% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Area with Reduced Risk Due to Levee
- Special Floodway



Appleton to Benson 115-kV
HVTL Project
Swift County, Minnesota

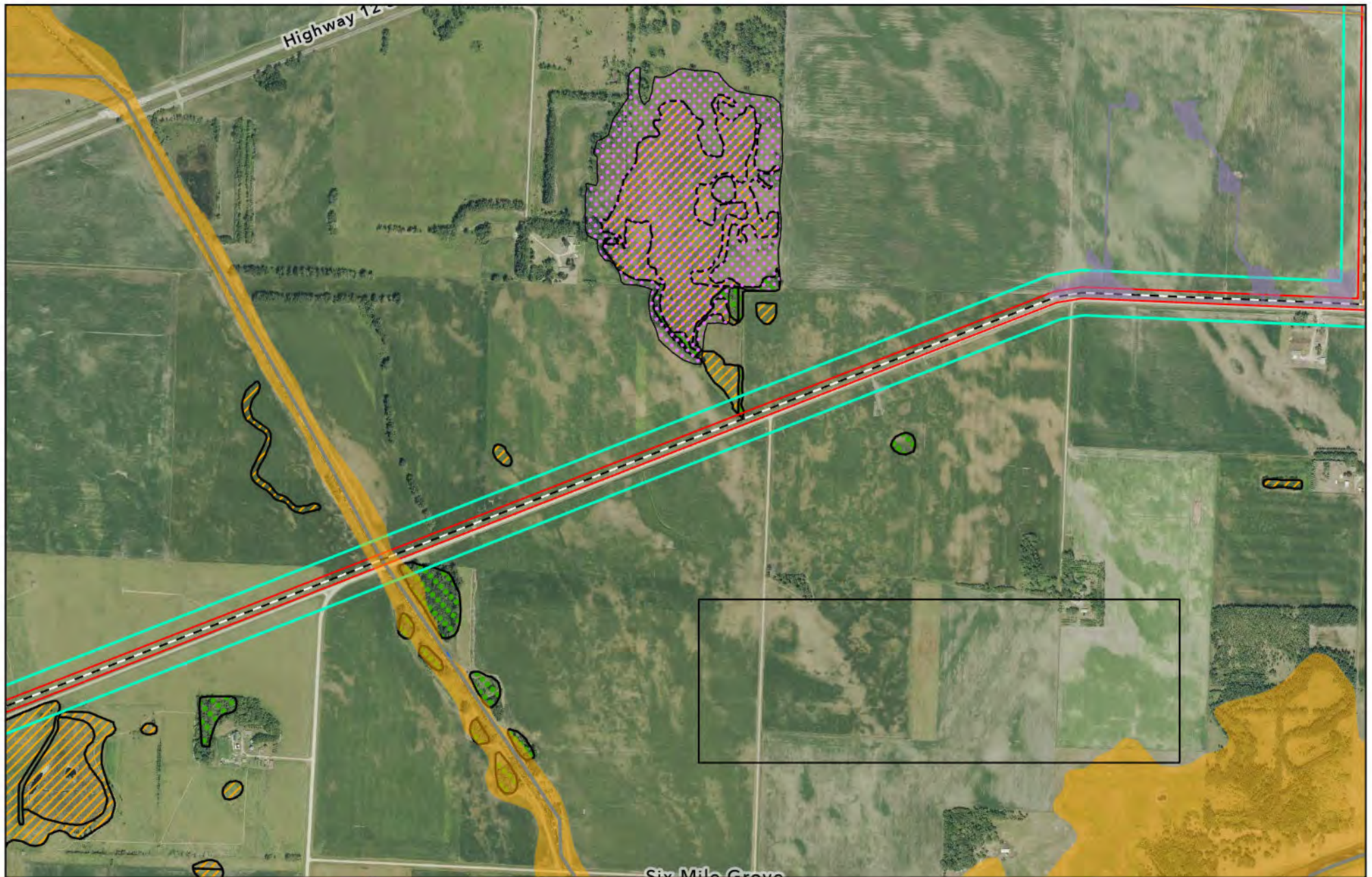
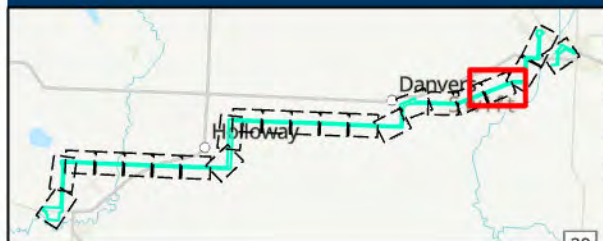
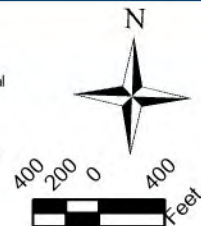


Figure 10: Surface Water Resources: Page 19 of 22



- - - Proposed Alignment
- Proposed 100-foot ROW
- Proposed Route Width
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Appleton to Benson 115-kV
HVTL Project
Swift County, Minnesota

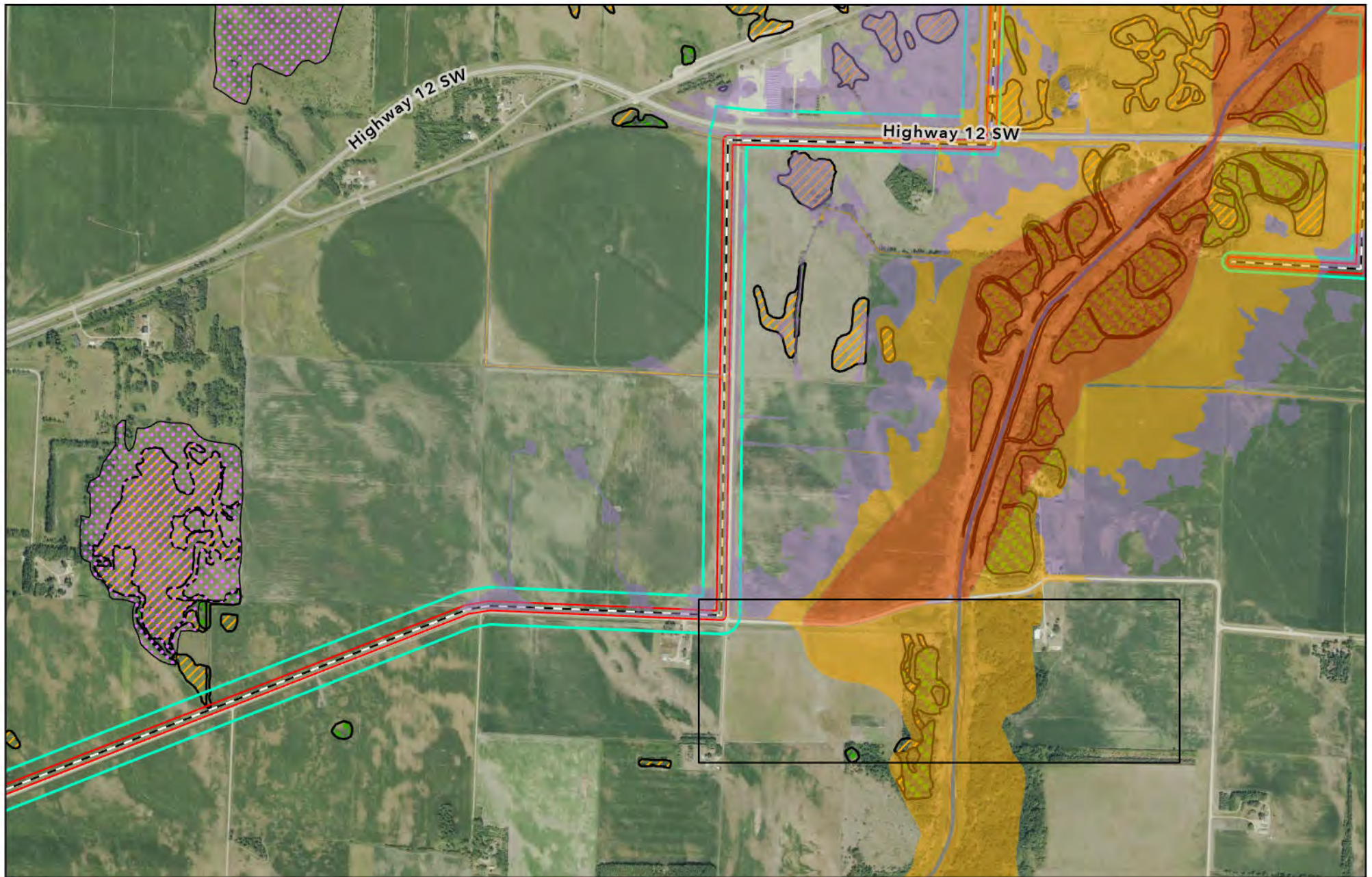
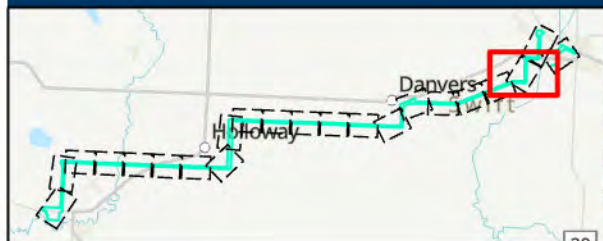


Figure 10: Surface Water Resources: Page 20 of 22



- Proposed Alignment
- Proposed 100-foot ROW
- Proposed Route Width
- PWI- Watercourses (MDNR)
- PWI- Waterbodies (MDNR)
- NWI Freshwater Emergent Wetland (USFWS)
- NWI Freshwater Forested/Shrub Wetland (USFWS)
- NWI Freshwater Pond (USFWS)
- Water Access Site
- 0.2% Annual Chance Flood Hazard
- 1% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Area with Reduced Risk Due to Levee
- Special Floodway



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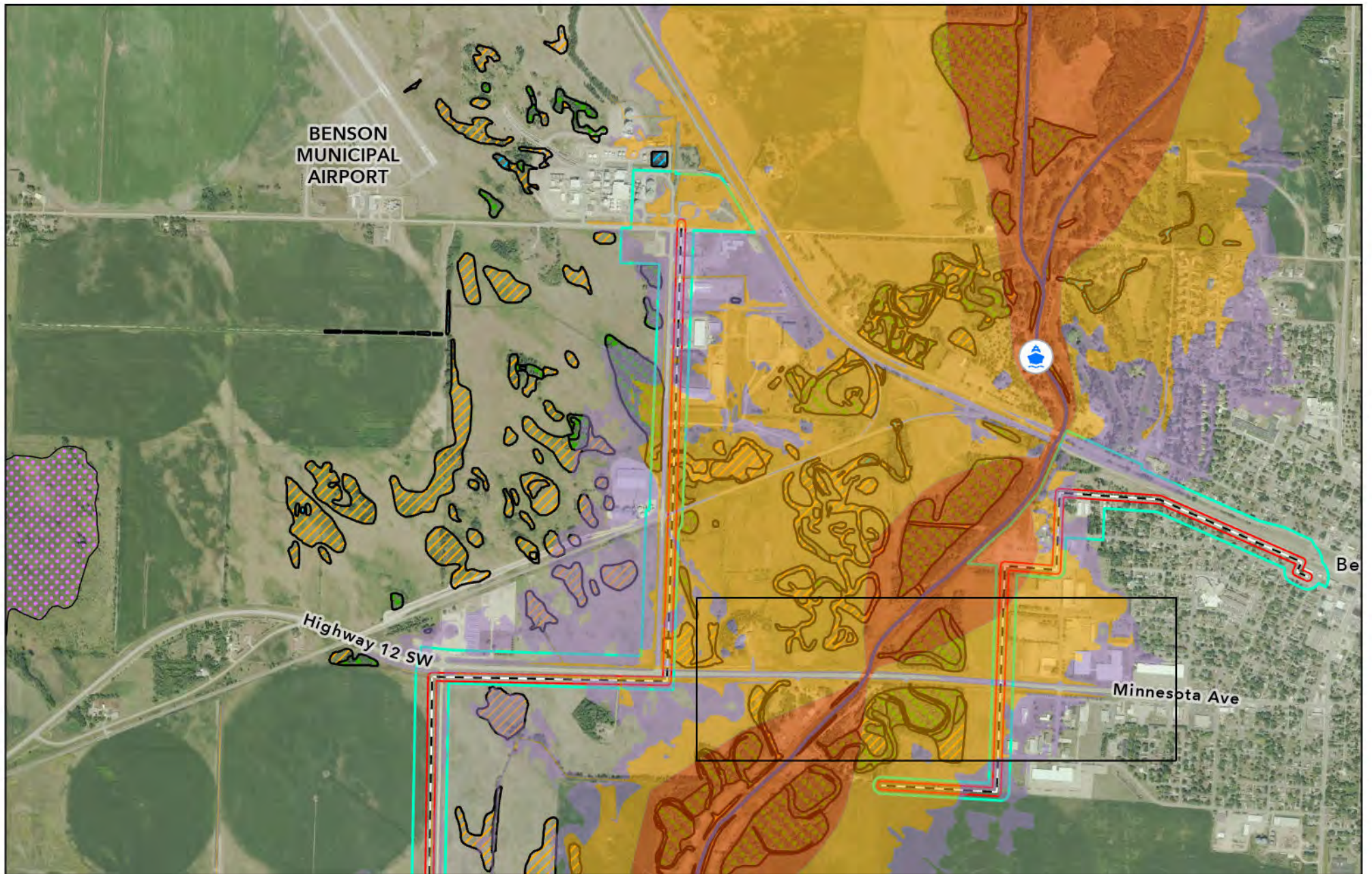
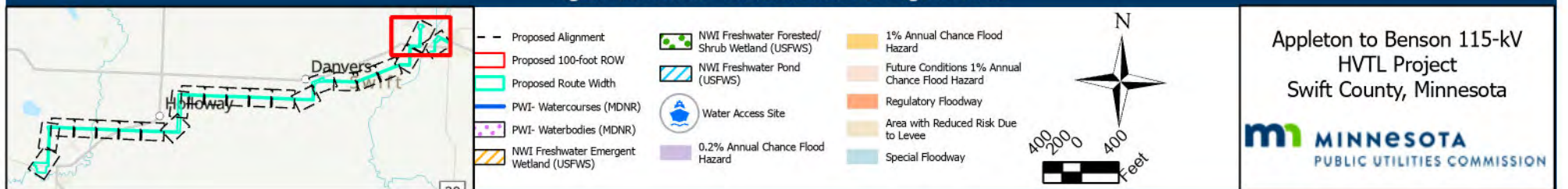


Figure 10: Surface Water Resources: Page 21 of 22



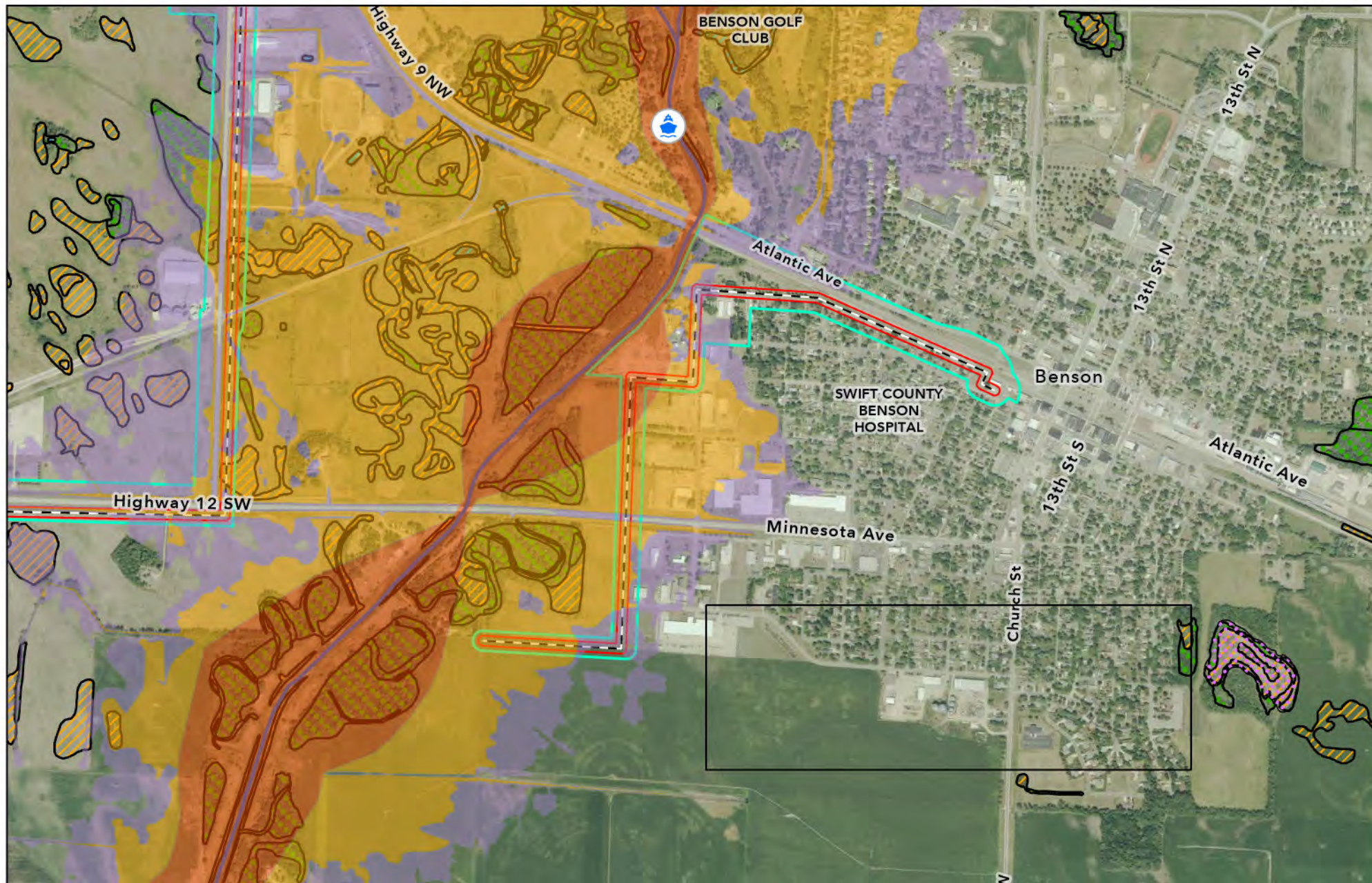
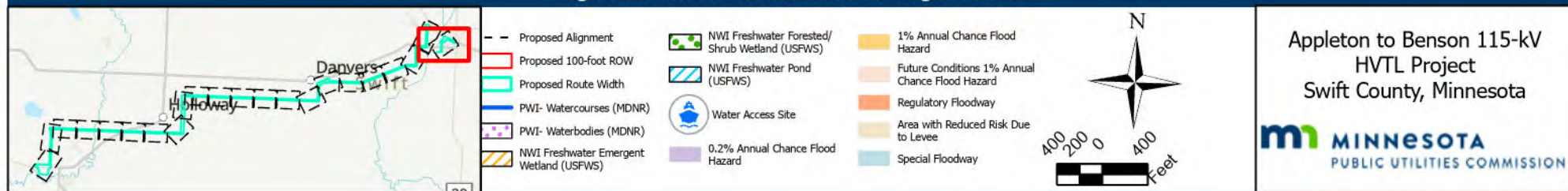


Figure 10: Surface Water Resources: Page 22 of 22



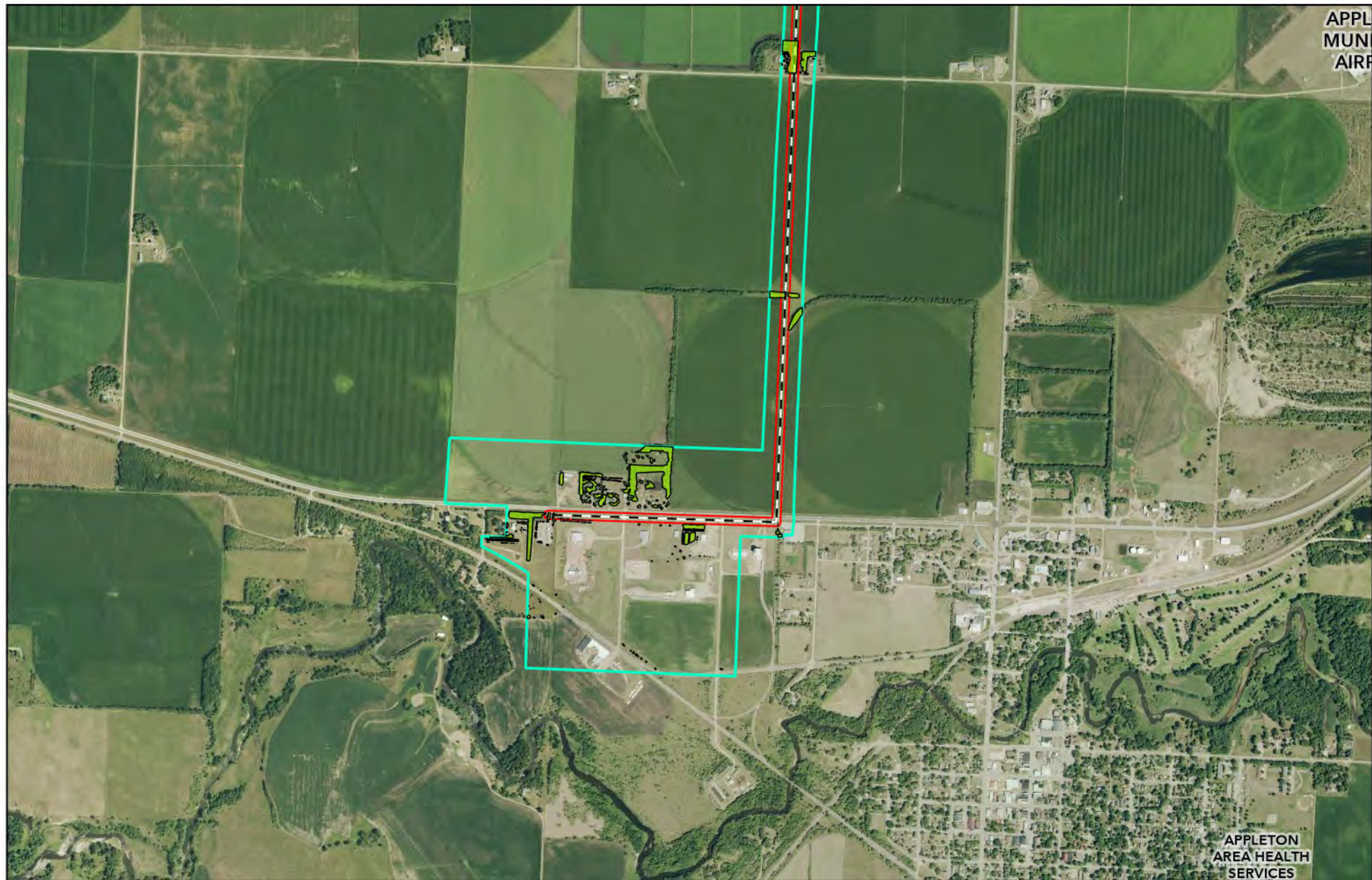


Figure 11: Mining and Forestry Resources: Page 1 of 22

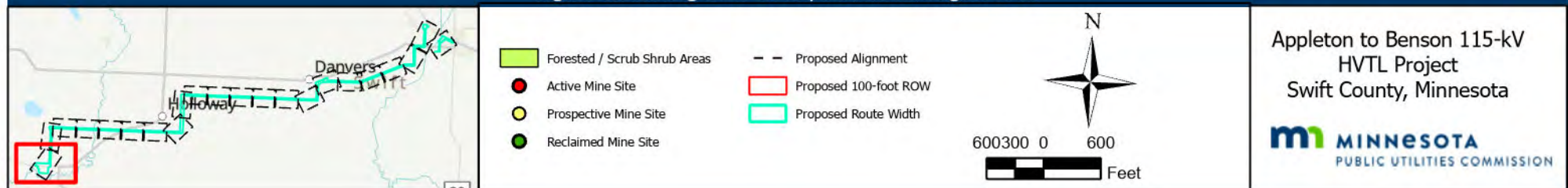




Figure 11: Mining and Forestry Resources: Page 2 of 22

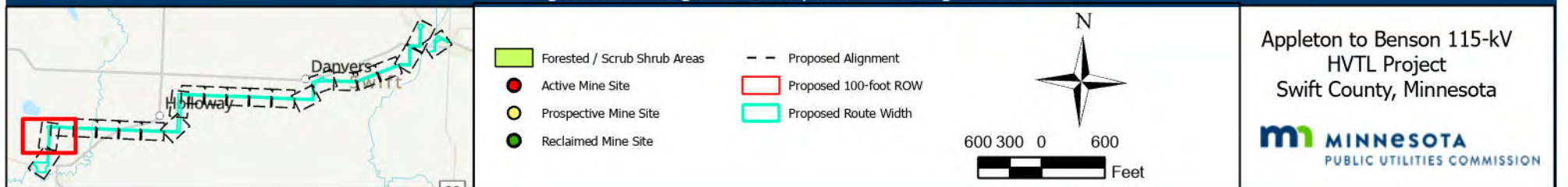




Figure 11: Mining and Forestry Resources: Page 3 of 22

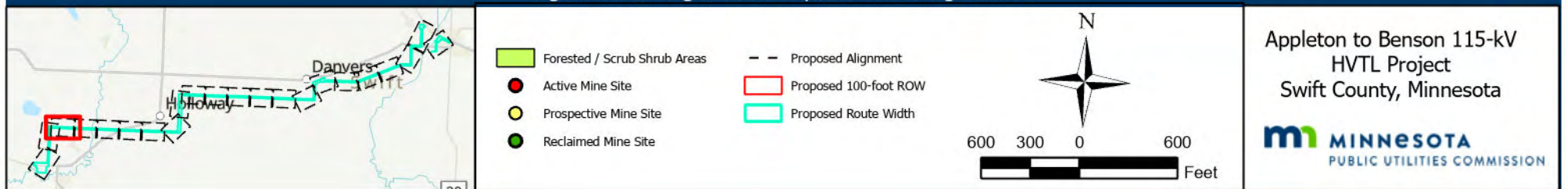




Figure 11: Mining and Forestry Resources: Page 4 of 22

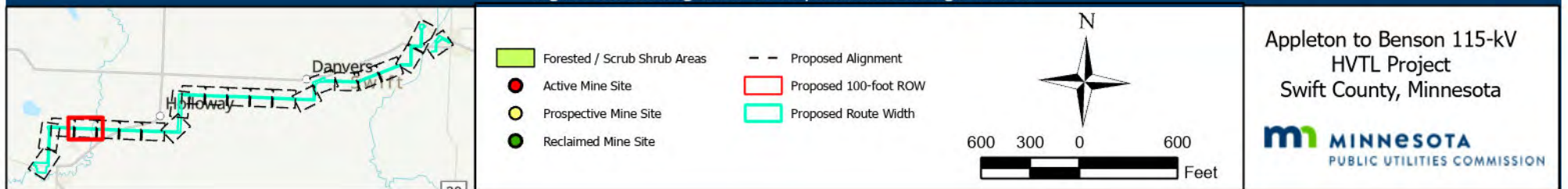




Figure 11: Mining and Forestry Resources: Page 5 of 22

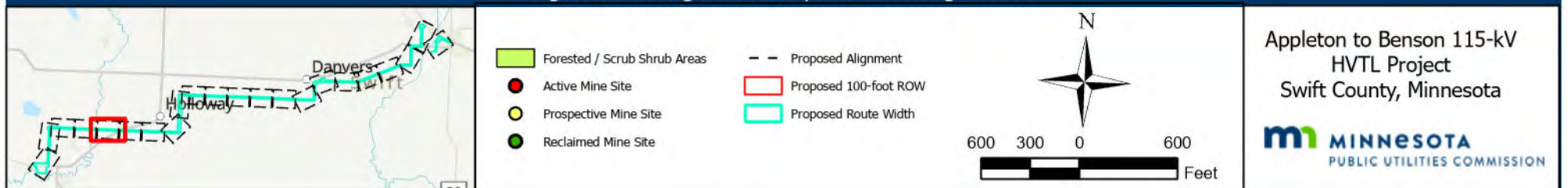
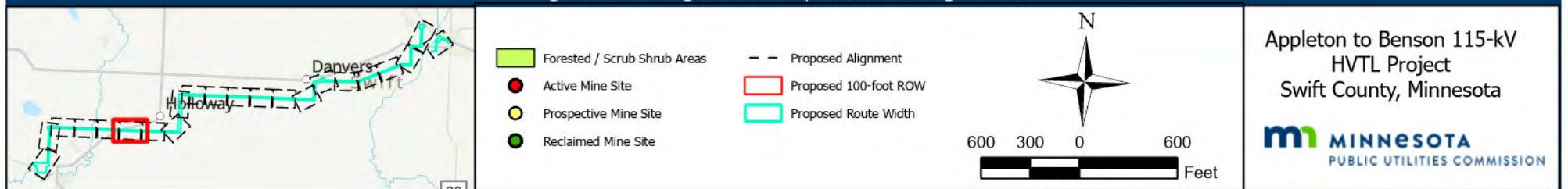




Figure 11: Mining and Forestry Resources: Page 6 of 22



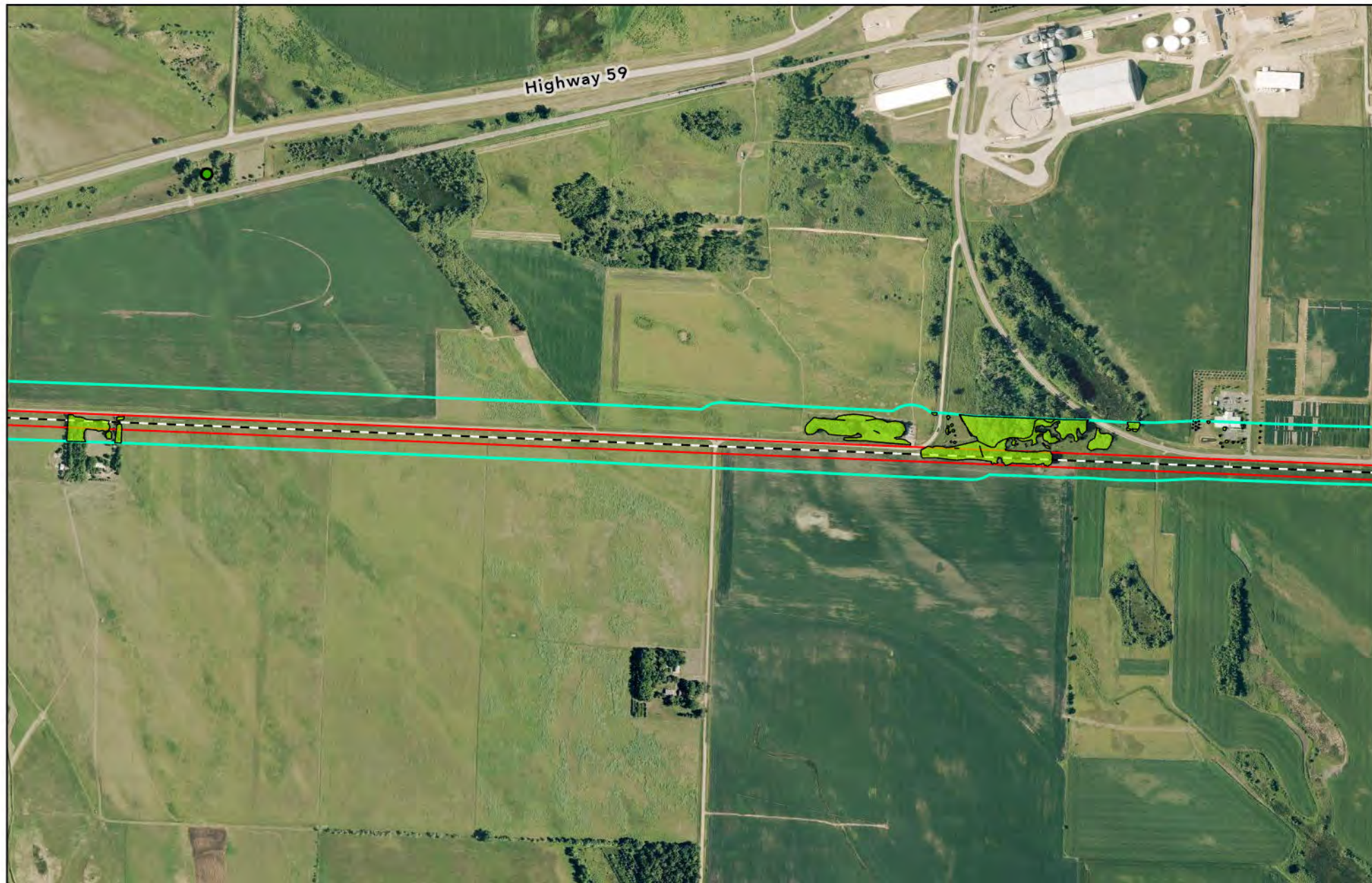


Figure 11: Mining and Forestry Resources: Page 7 of 22

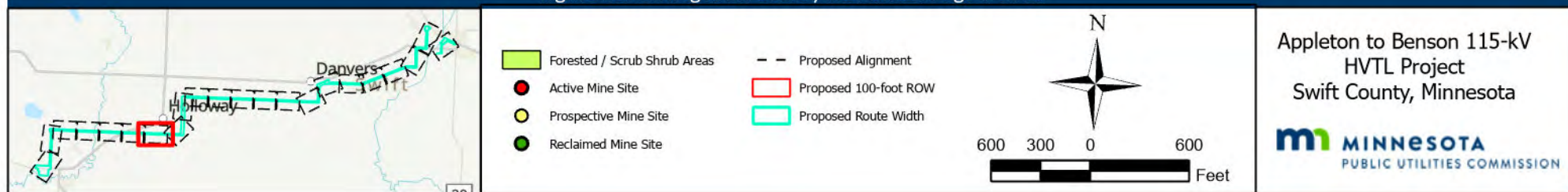
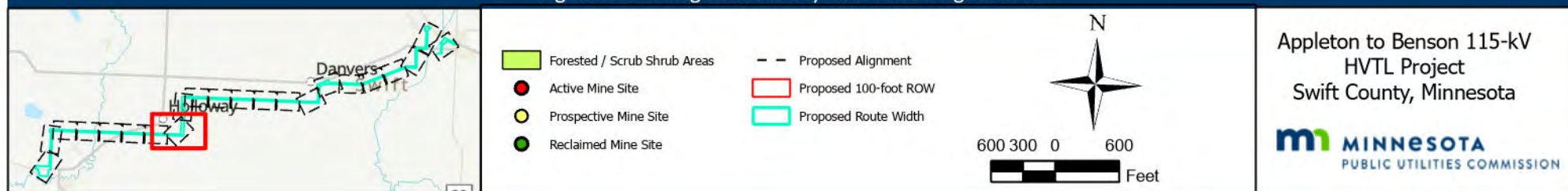




Figure 11: Mining and Forestry Resources: Page 8 of 22



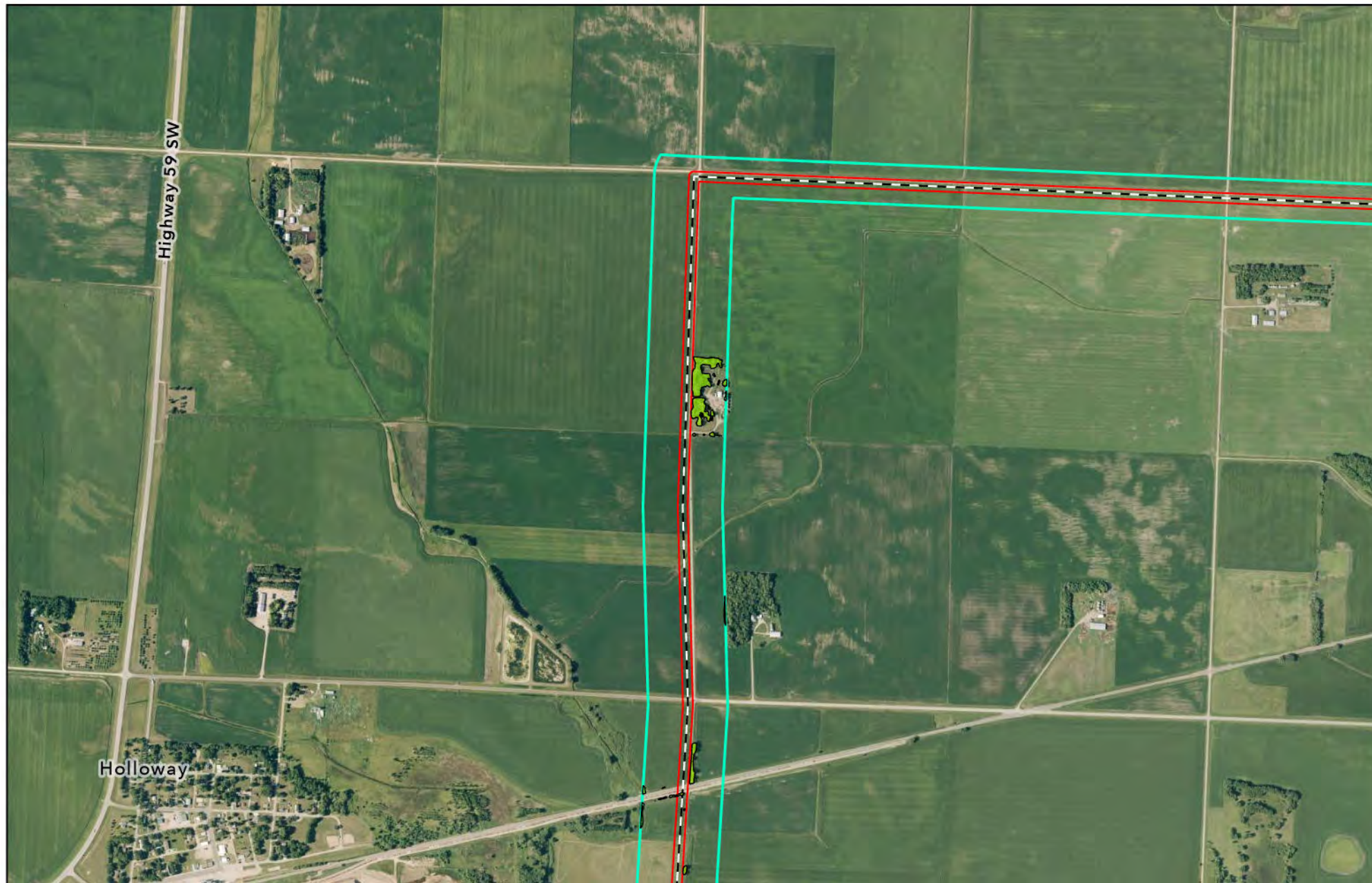


Figure 11: Mining and Forestry Resources: Page 9 of 22

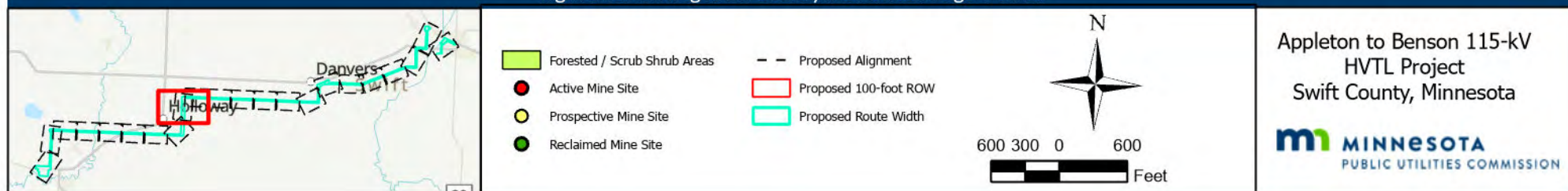




Figure 11: Mining and Forestry Resources: Page 10 of 22

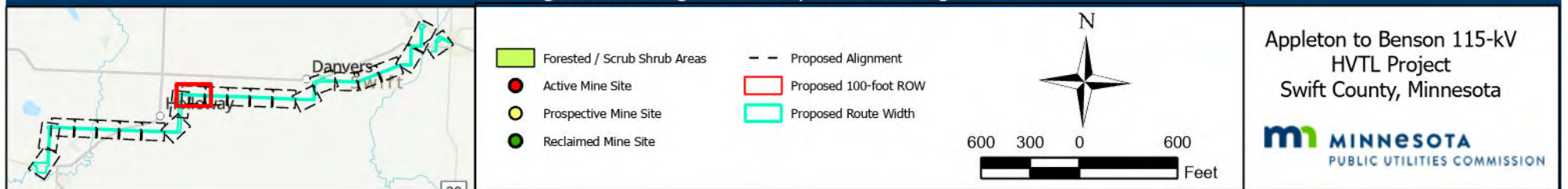
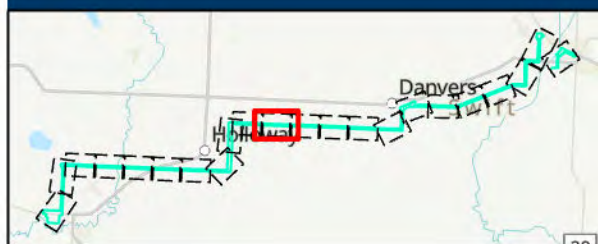
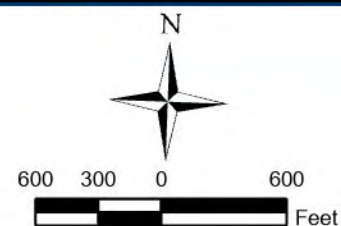




Figure 11: Mining and Forestry Resources: Page 11 of 22



- | | |
|--|--|
|  Forested / Scrub Shrub Areas |  Proposed Alignment |
|  Active Mine Site |  Proposed 100-foot ROW |
|  Prospective Mine Site |  Proposed Route Width |
|  Reclaimed Mine Site | |



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Figure 11: Mining and Forestry Resources: Page 12 of 22

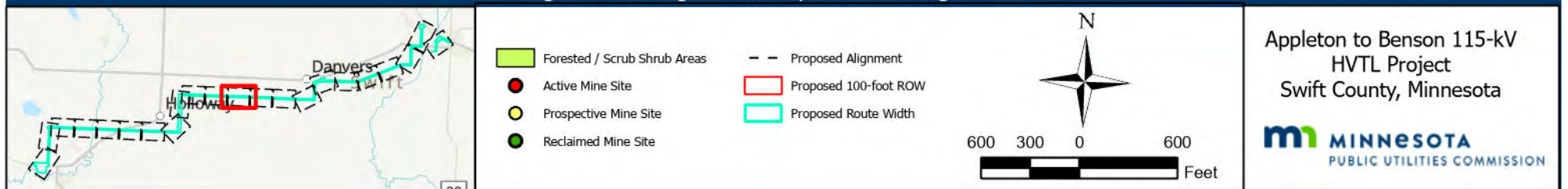




Figure 11: Mining and Forestry Resources: Page 13 of 22

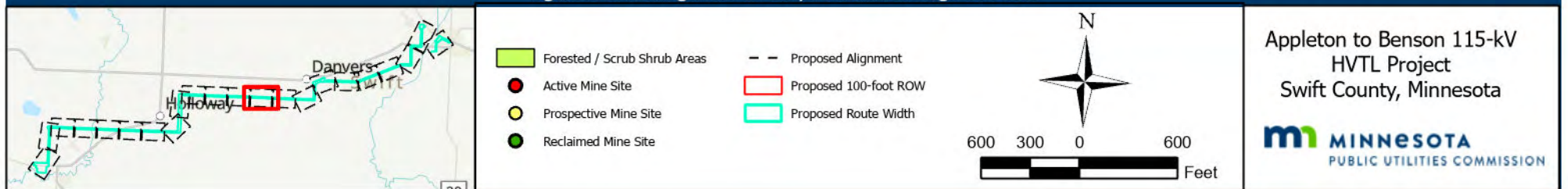




Figure 11: Mining and Forestry Resources: Page 14 of 22

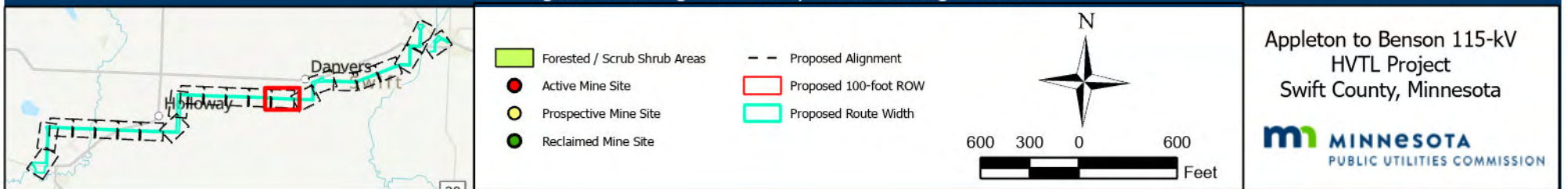
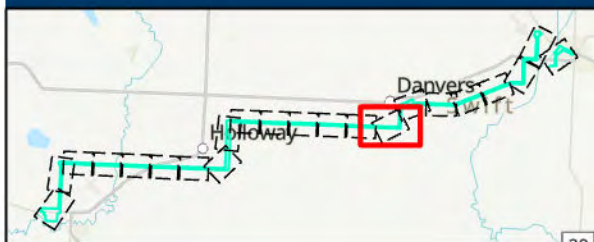
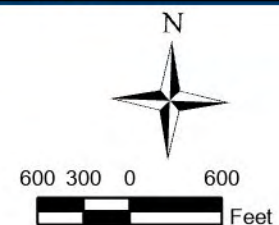




Figure 11: Mining and Forestry Resources: Page 15 of 22



- Forested / Scrub Shrub Areas
- Active Mine Site
- Prospective Mine Site
- Reclaimed Mine Site
- Proposed Alignment
- Proposed 100-foot ROW
- Proposed Route Width



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Figure 11: Mining and Forestry Resources: Page 16 of 22

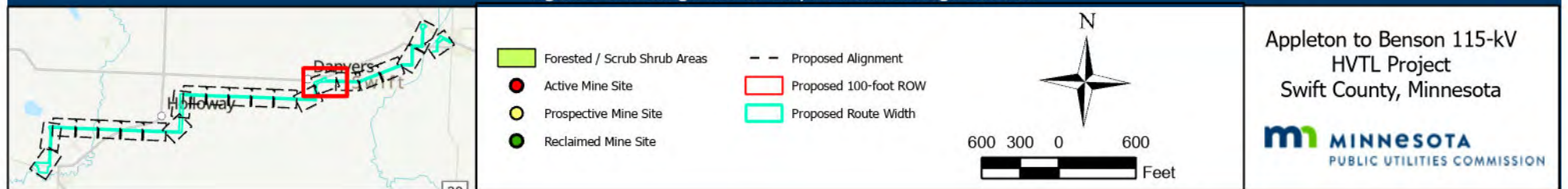
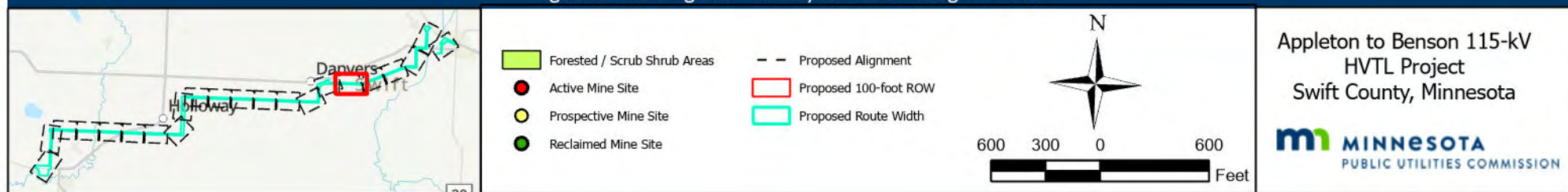




Figure 11: Mining and Forestry Resources: Page 17 of 22



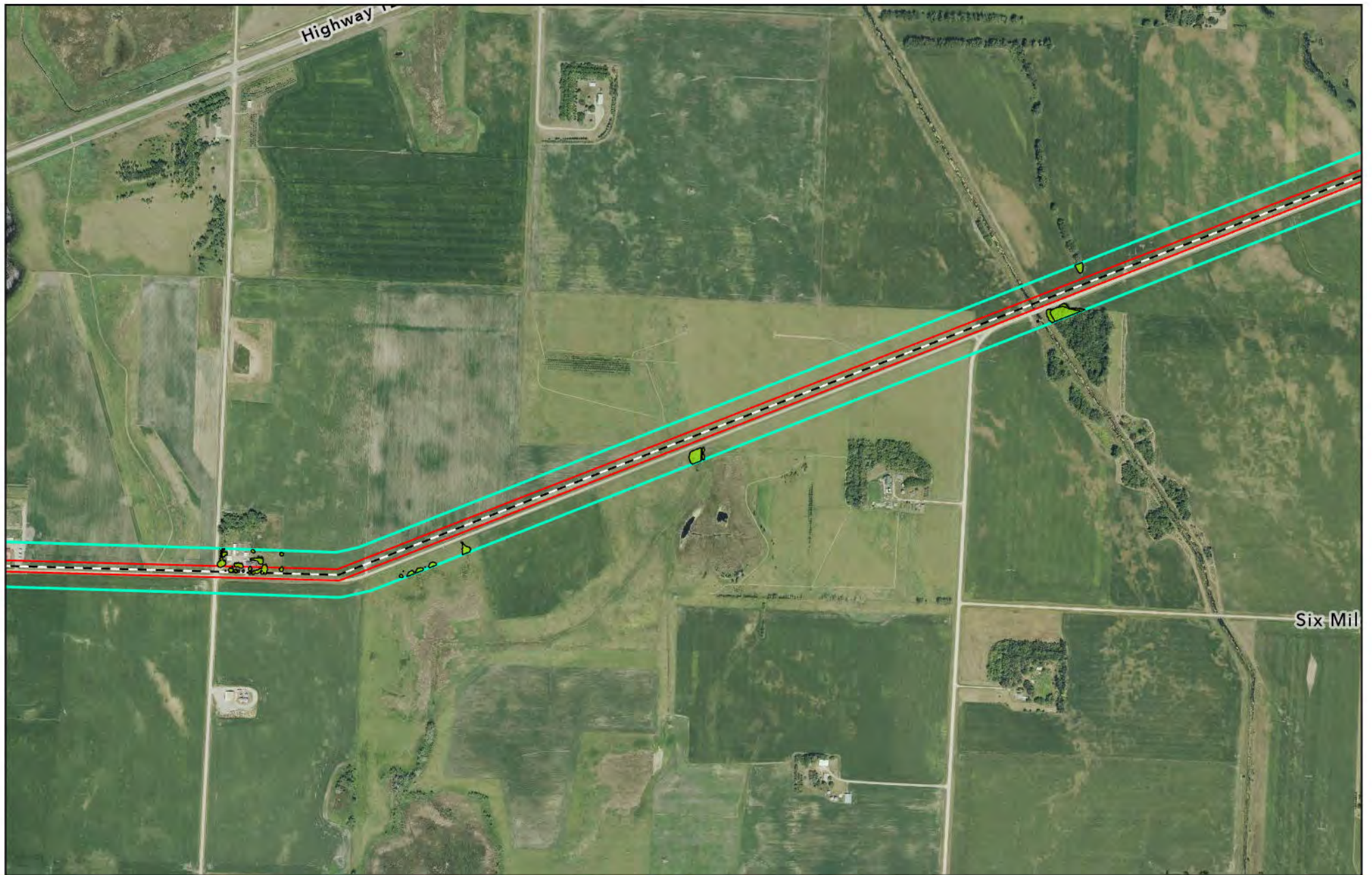
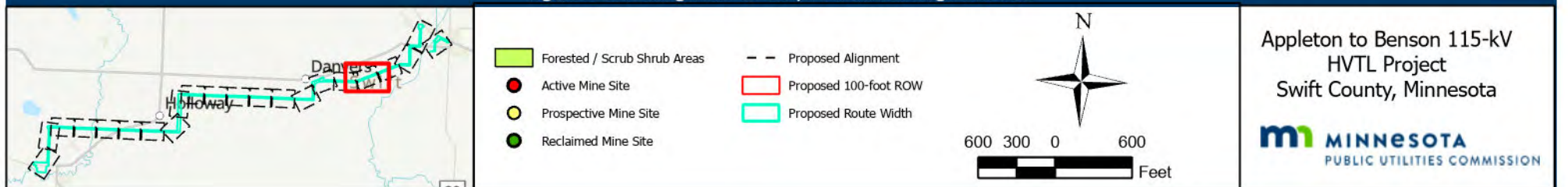


Figure 11: Mining and Forestry Resources: Page 18 of 22



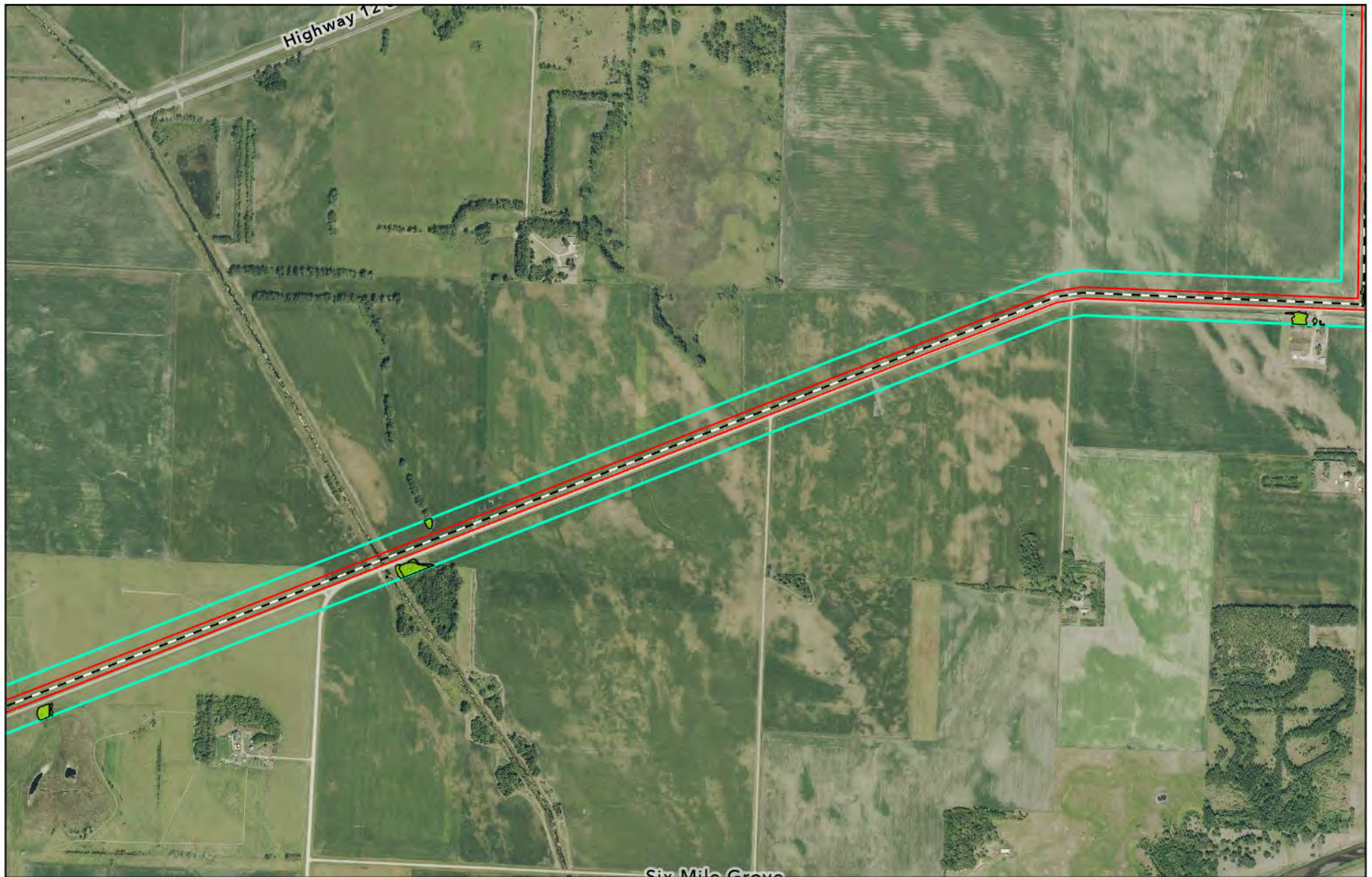
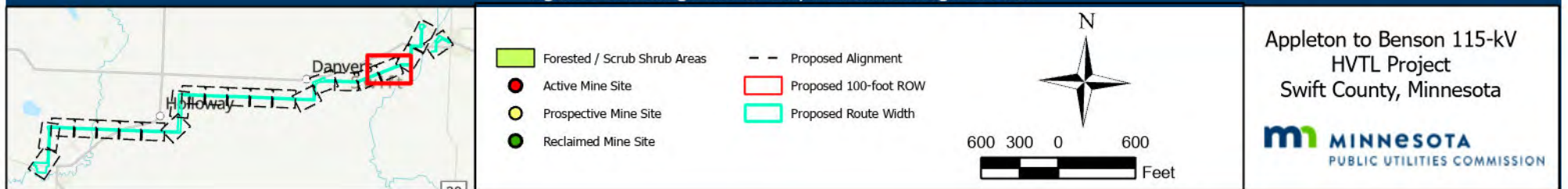


Figure 11: Mining and Forestry Resources: Page 19 of 22



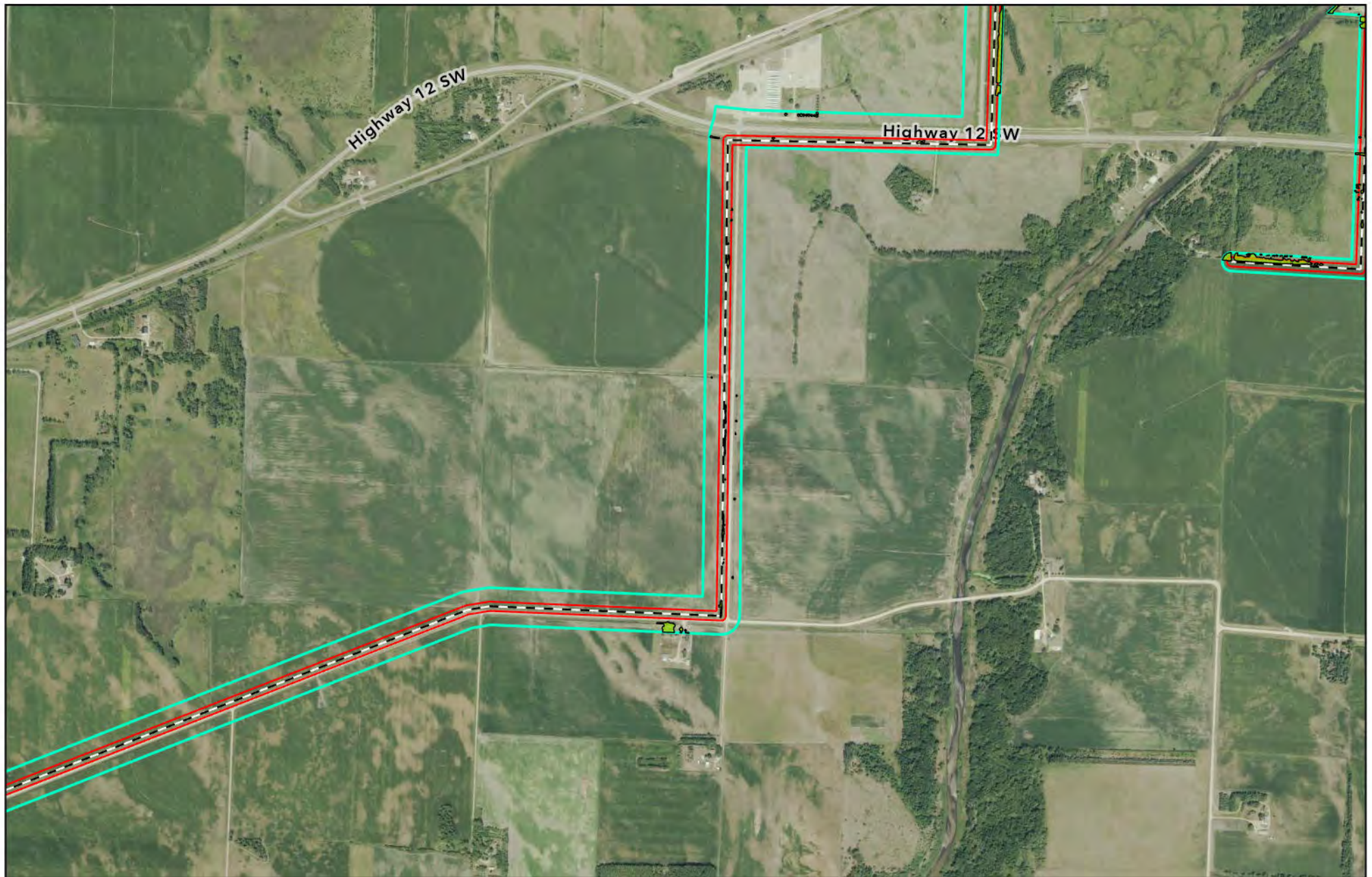
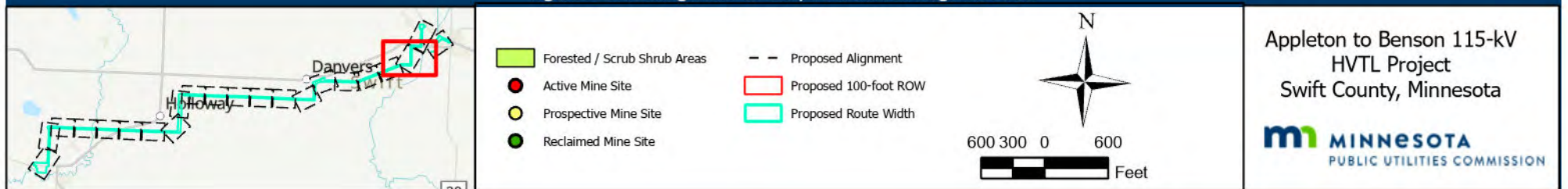


Figure 11: Mining and Forestry Resources: Page 20 of 22



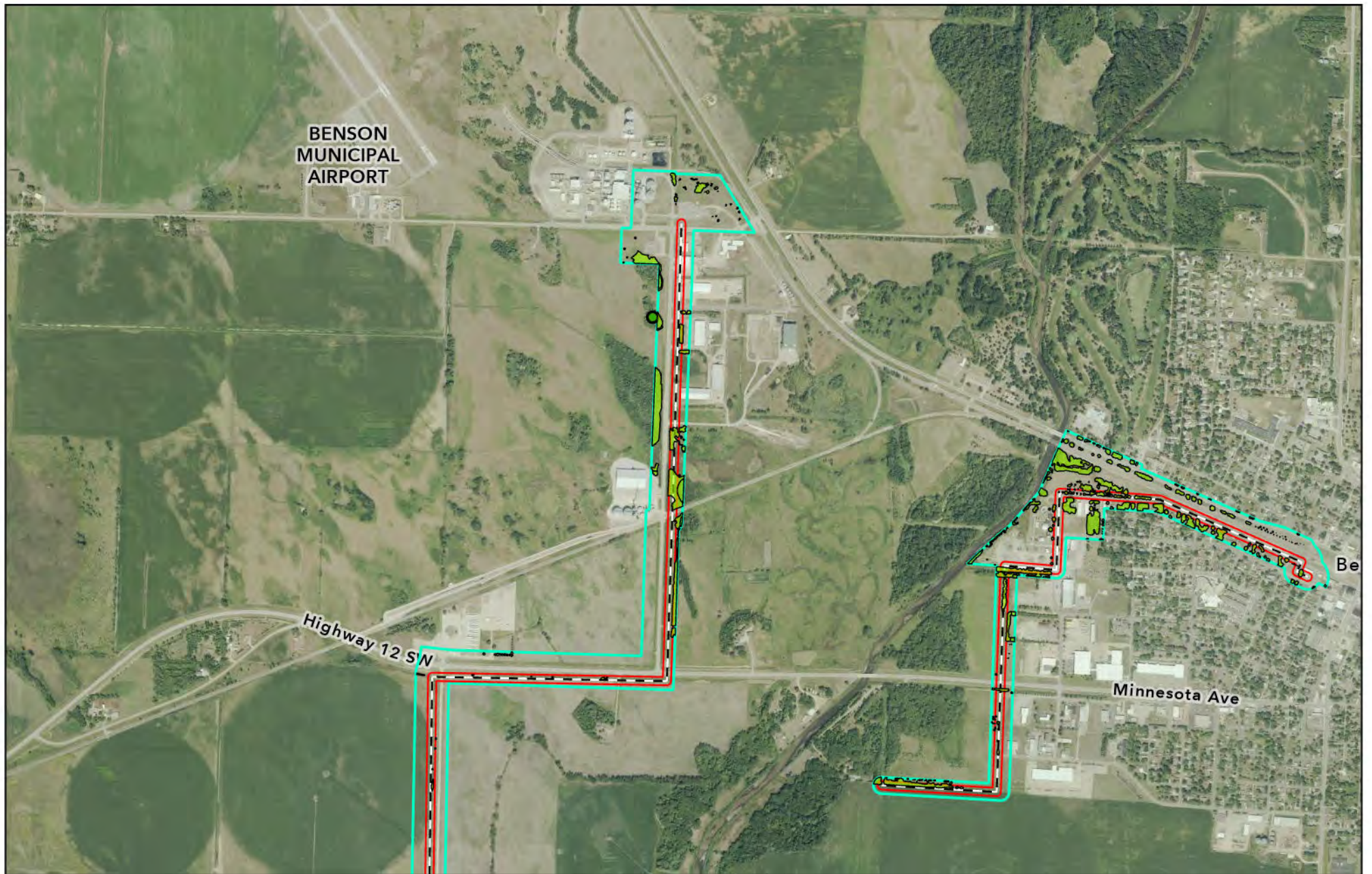


Figure 11: Mining and Forestry Resources: Page 21 of 22

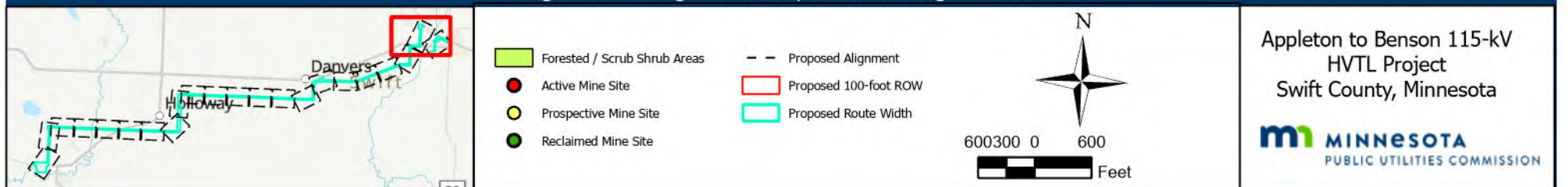
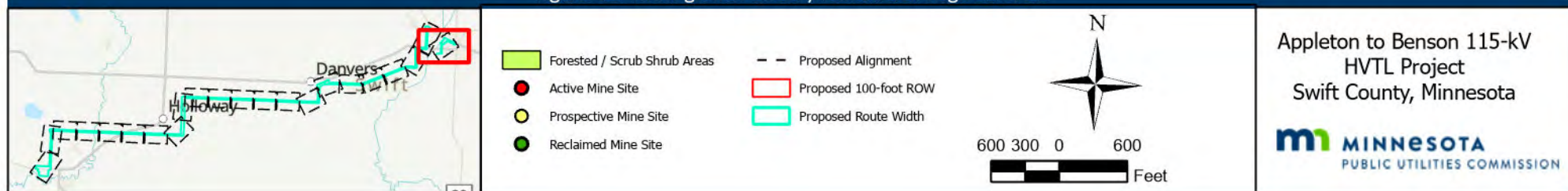




Figure 11: Mining and Forestry Resources: Page 22 of 22



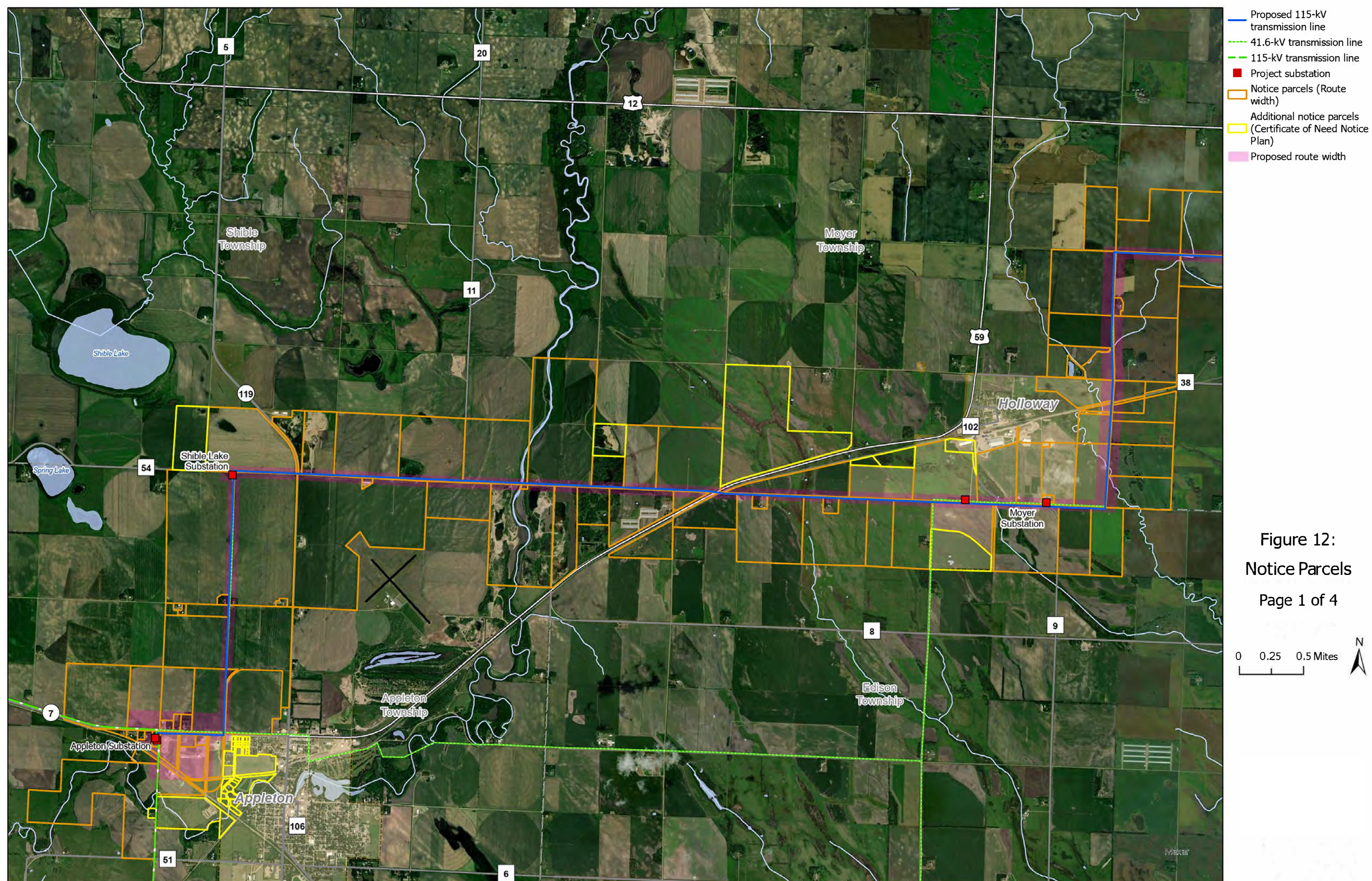
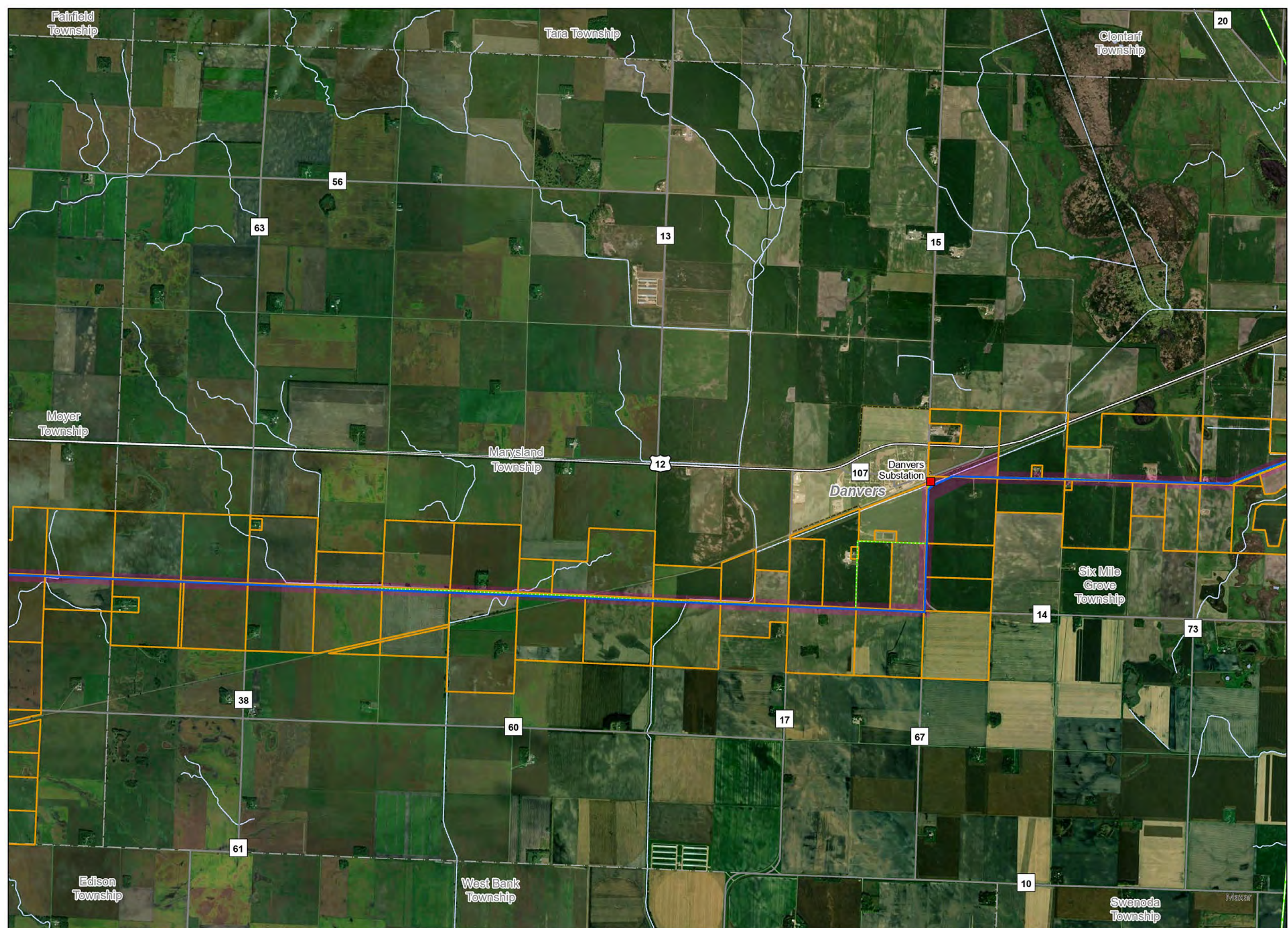
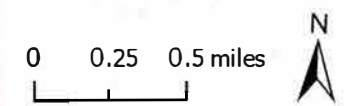


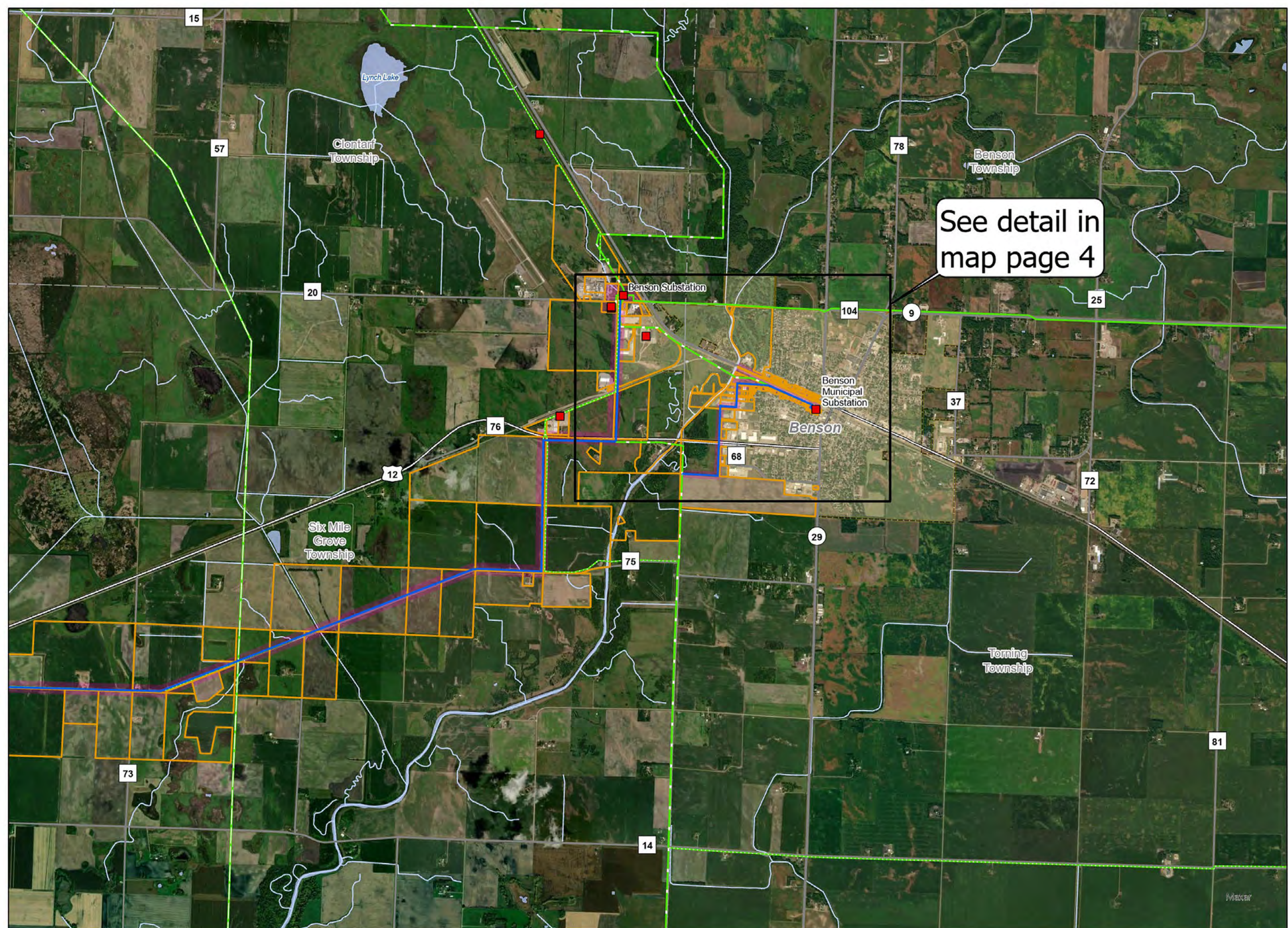
Figure 12:
Notice Parcels
Page 1 of 4



- Proposed 115-kV transmission line
- 41.6-kV transmission line
- 230-kV transmission line
- Project substation
- Notice parcels (Route width)
- Proposed route width

Figure 12:
Notice Parcels
Page 2 of 4

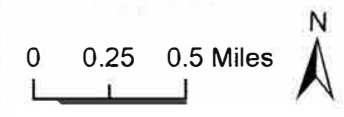


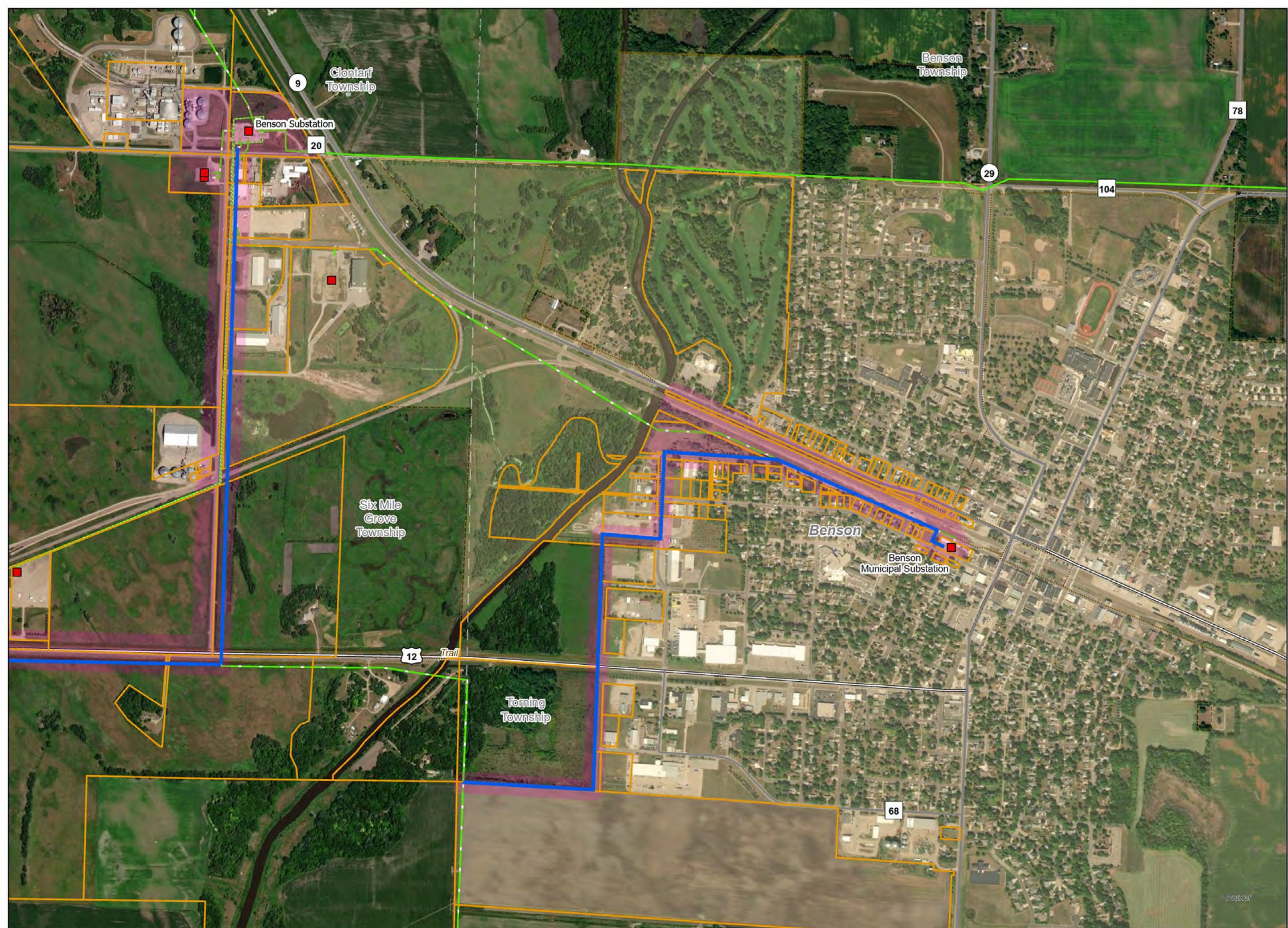


- Proposed 115-kV transmission line
- 41.6-kV transmission line
- 69-kV transmission line
- 115-kV transmission line
- 230-kV transmission line
- Project substation
- Notice parcels (Route width)
- Proposed route width

See detail in
map page 4

Figure 11~2:
Notice Parcels
Page 3 of 4





- Proposed 115-kV transmission line
- 41.6-kV transmission line
- 69-kV transmission line
- 115-kV transmission line
- Project substation
- Notice parcels (Route width)
- Proposed route width

Figure 12:
Notice Parcels

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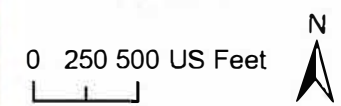
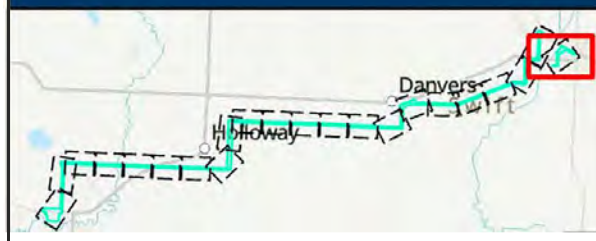
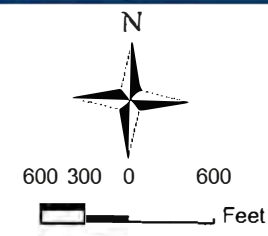




Figure 11: Mining and Forestry Resources: Page 22 of 22



- | | |
|------------------------------|-----------------------|
| Forested / Scrub Shrub Areas | Proposed Alignment |
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