

- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

- Environmental Field Data**
- Wetlands**
- | Field Delineated Wetland | NWI Wetlands |
|--------------------------|--------------|
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
 - NWI Waterbodies
 - Lake/Pond
 - Riverine

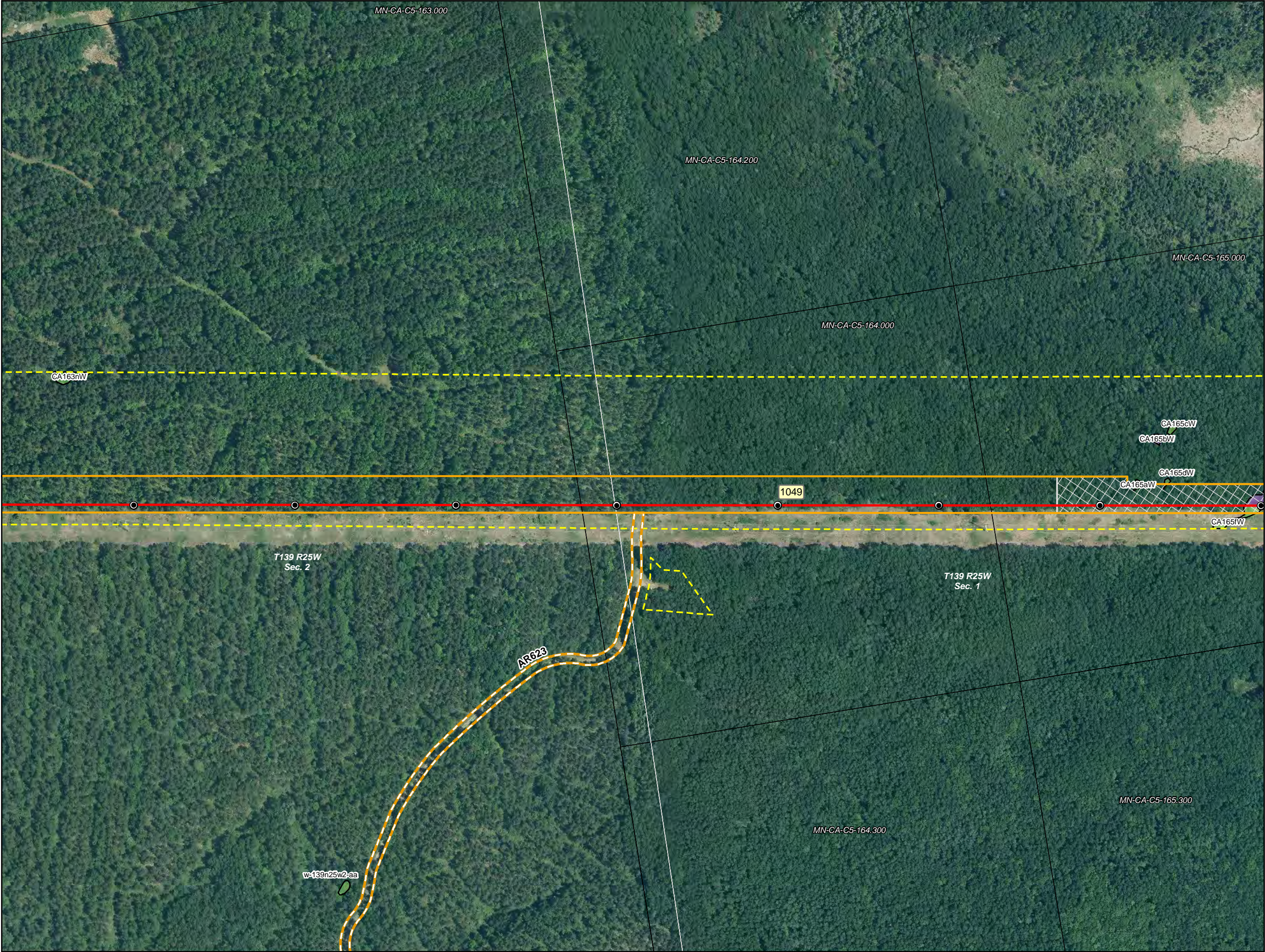


Detailed Route Maps

Line 3 Replacement Project

Cass County, Minnesota



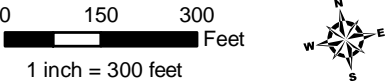


- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

Wetlands	
Field Delineated Wetland	NWI Wetlands
PEM	PEM
PFO	PFO
PSS	PSS
PUB	PUB

- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies**
- Lake/Pond
 - Riverine

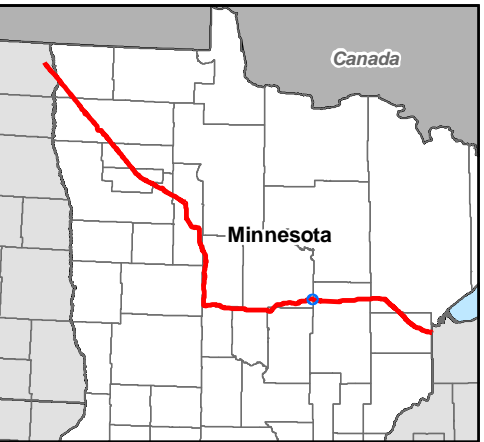
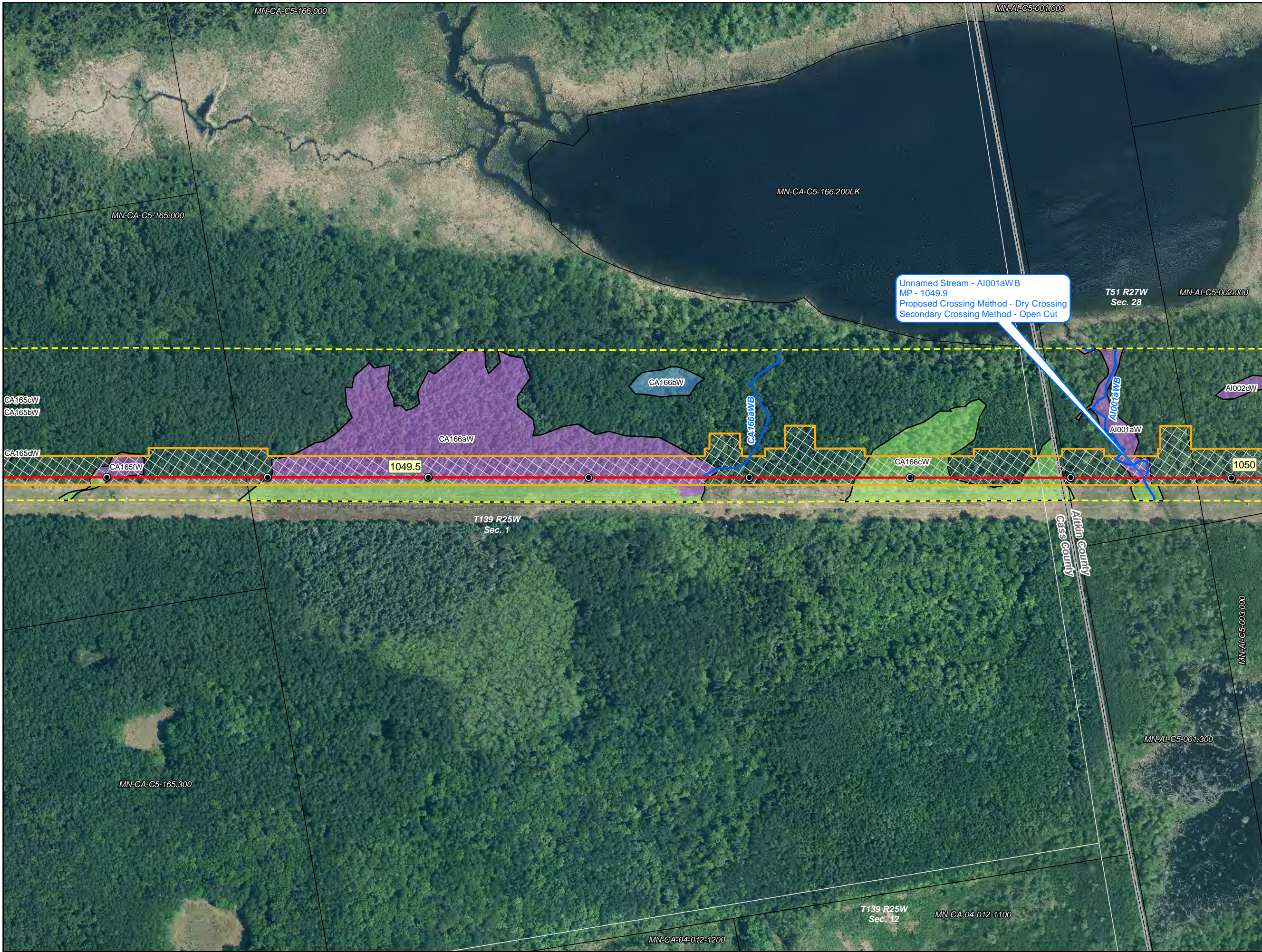


Detailed Route Maps

Line 3 Replacement Project

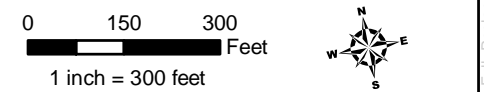
Cass County, Minnesota





- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

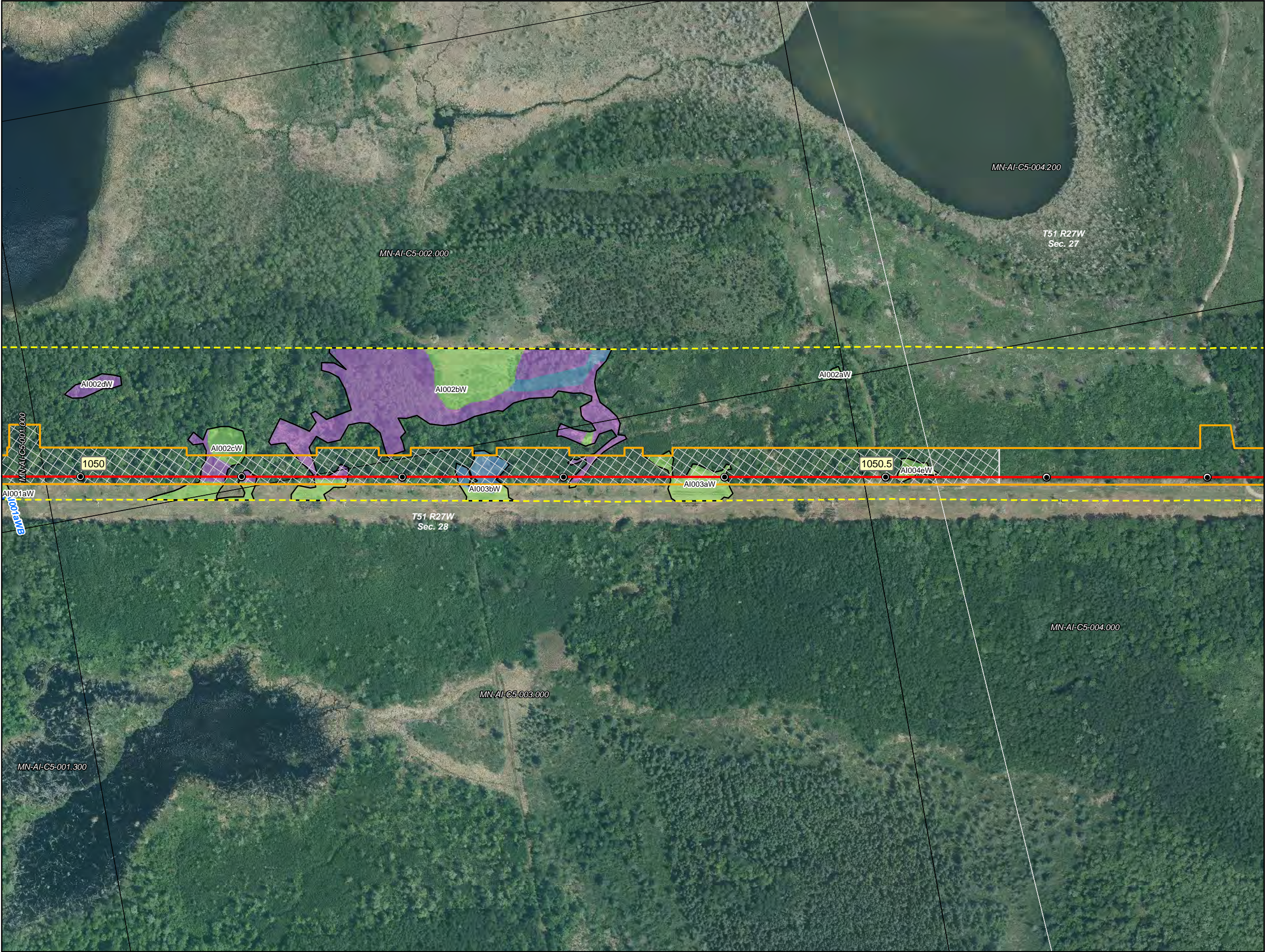
- Environmental Field Data**
- Wetlands**
- | Field Delineated Wetland | NWI Wetlands |
|--------------------------|--------------|
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
 - NWI Waterbodies
 - Lake/Pond
 - Riverine



Detailed Route Maps

Line 3 Replacement Project

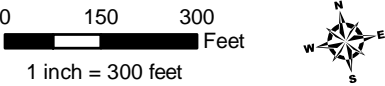
Cass and Aitkin Counties, Minnesota



- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine

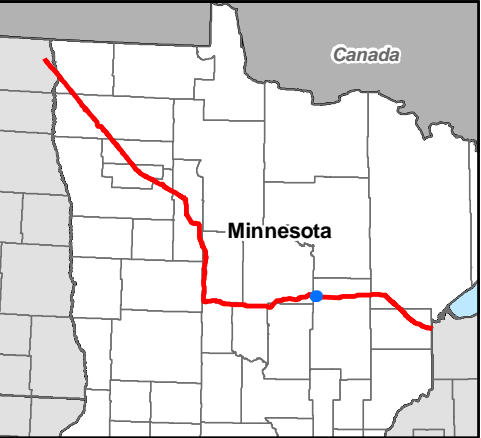


Detailed Route Maps

Line 3 Replacement Project

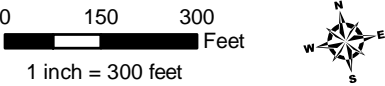
Aitkin County, Minnesota





- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

- Environmental Field Data**
- Wetlands**
- | Field Delineated Wetland | NWI Wetlands |
|--------------------------|--------------|
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
 - NWI Waterbodies
 - Lake/Pond
 - Riverine

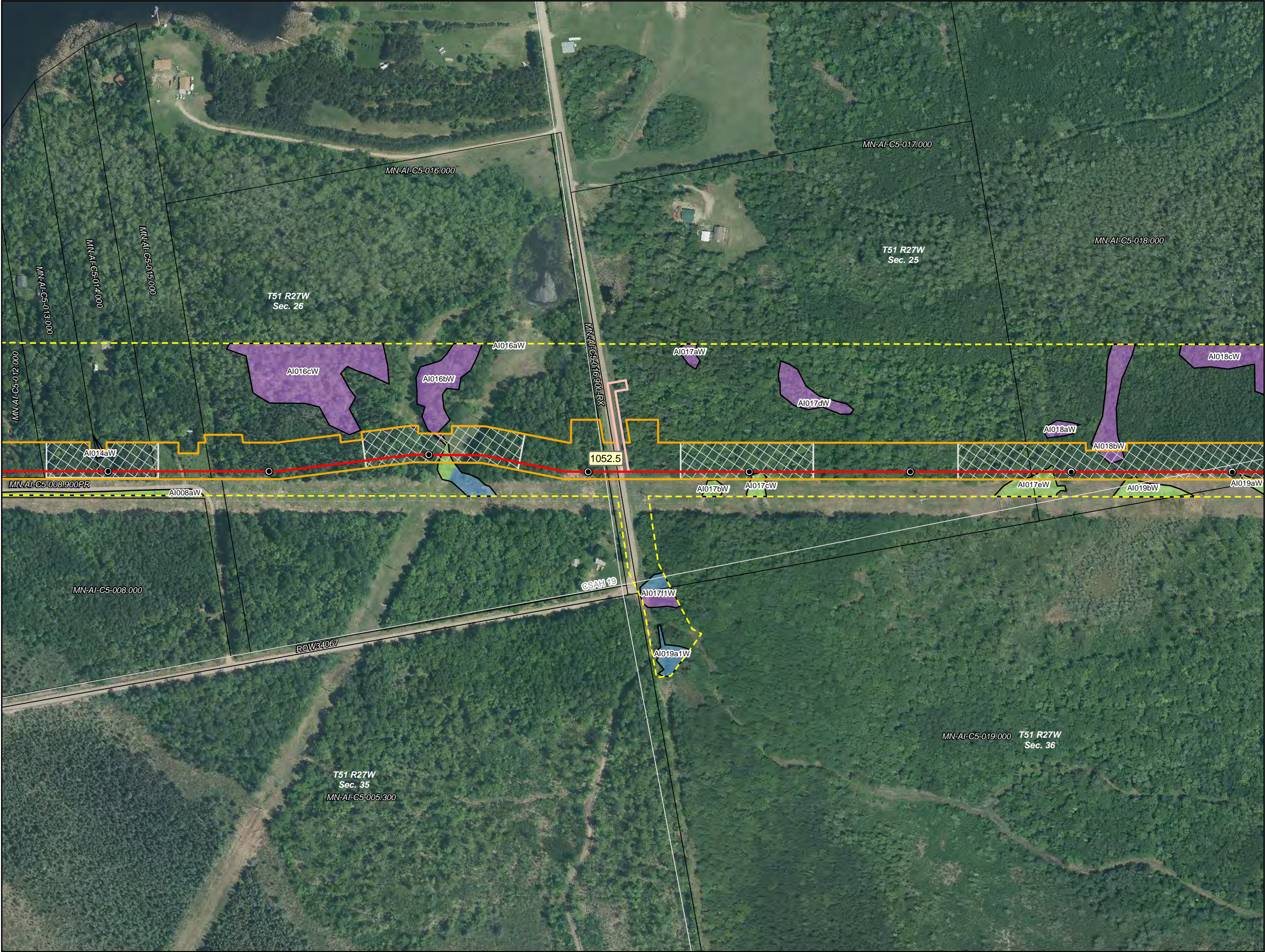


Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota

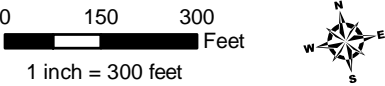




- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine

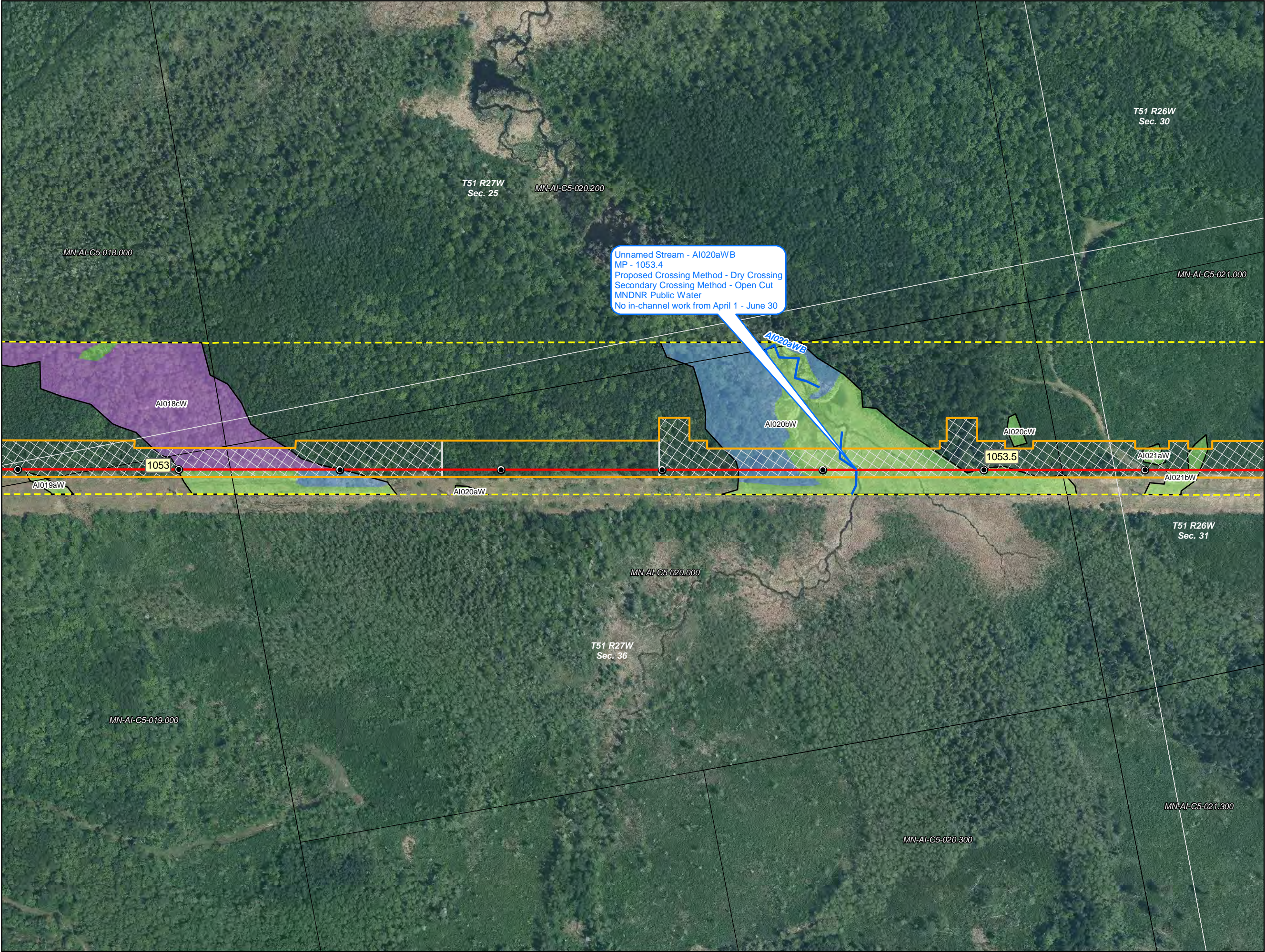


Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota





- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

Wetlands

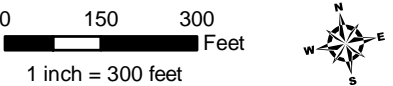
Field Delineated Wetland	NWI Wetlands
PEM	PEM
PFO	PFO
PSS	PSS
PUB	PUB

Waterbodies

- Field Delineated Waterbody
- NHD Waterbody

NWI Waterbodies

- Lake/Pond
- Riverine



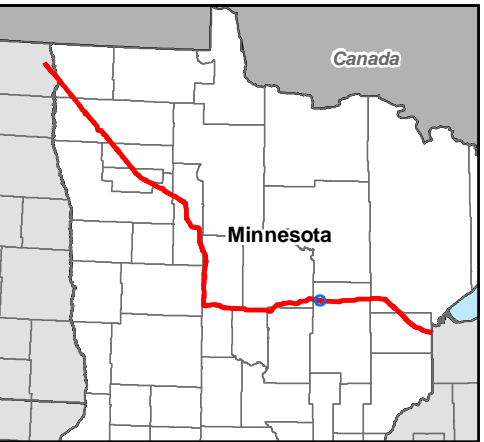
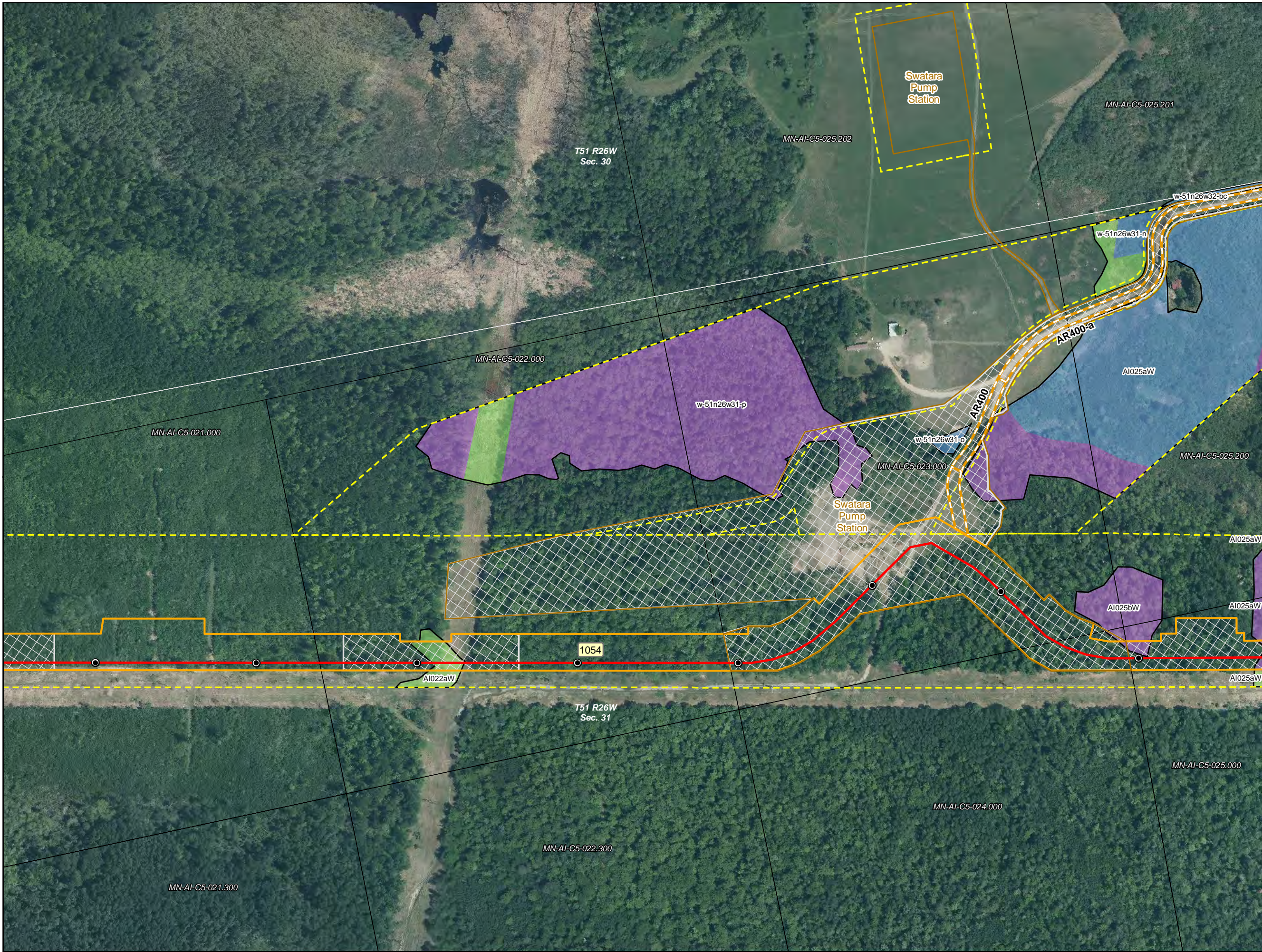
Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota

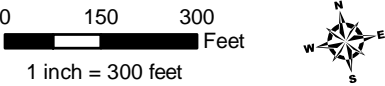


Source: Z:\Client\E_Hlenbroge\Line_3_Full_Replacement\Permitting\Federal\COE\2019_11\Figures\3_MN_COE_Alignment_Sheets_RevX.mxd Date: 11/03/2019



- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

- Environmental Field Data**
- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies**
- Lake/Pond
 - Riverine



Detailed Route Maps

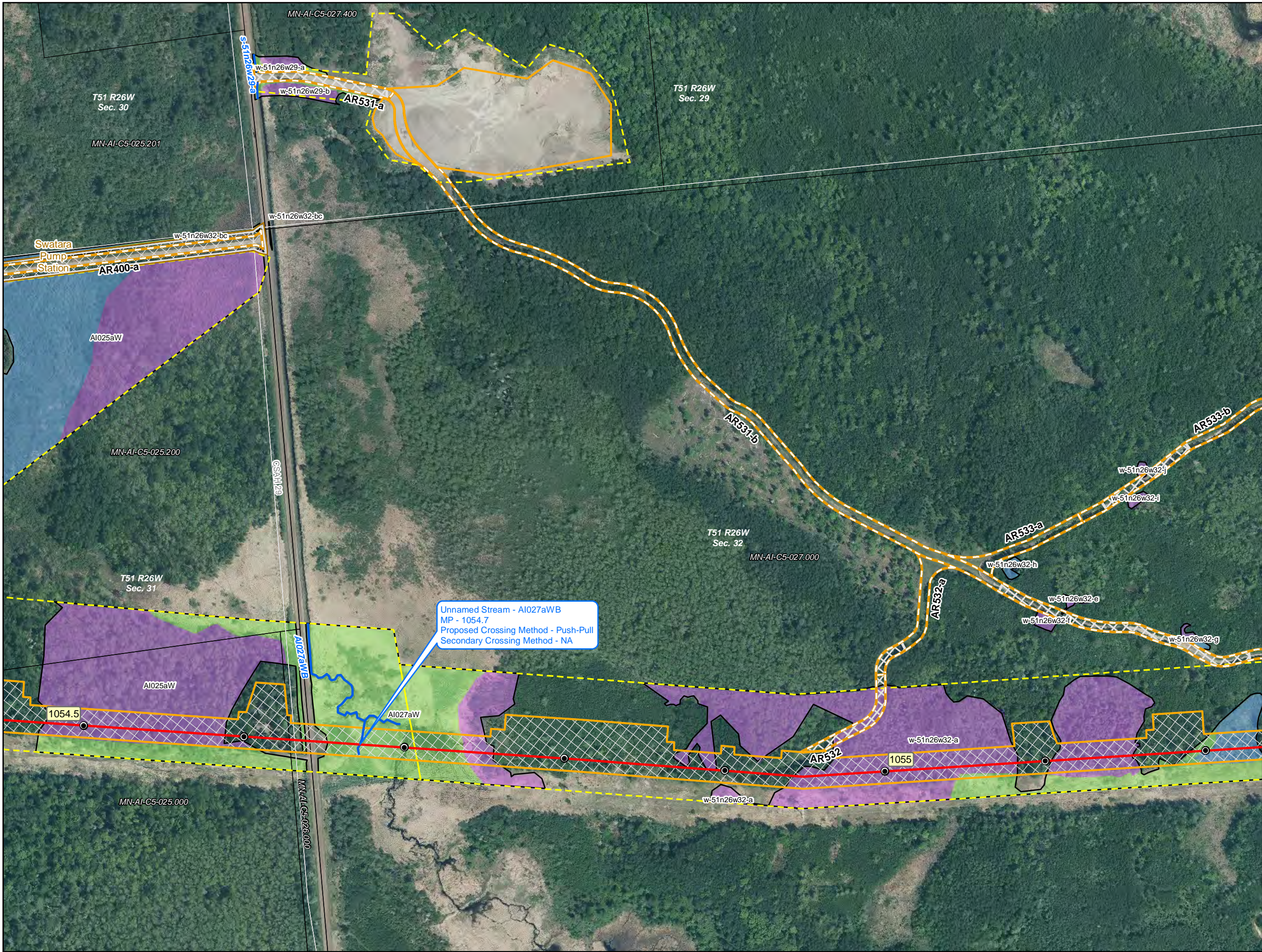
Line 3 Replacement Project

Aitkin County, Minnesota



Source: Z:\Client\E_Hlenbroge\Line_3_Full_Replacement\Permitting\Federal\COE\2019_11\Figures\3_MN_COE_Alignment_Sheets_RevX.mxd

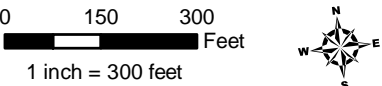
Date: 11/03/2019



- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

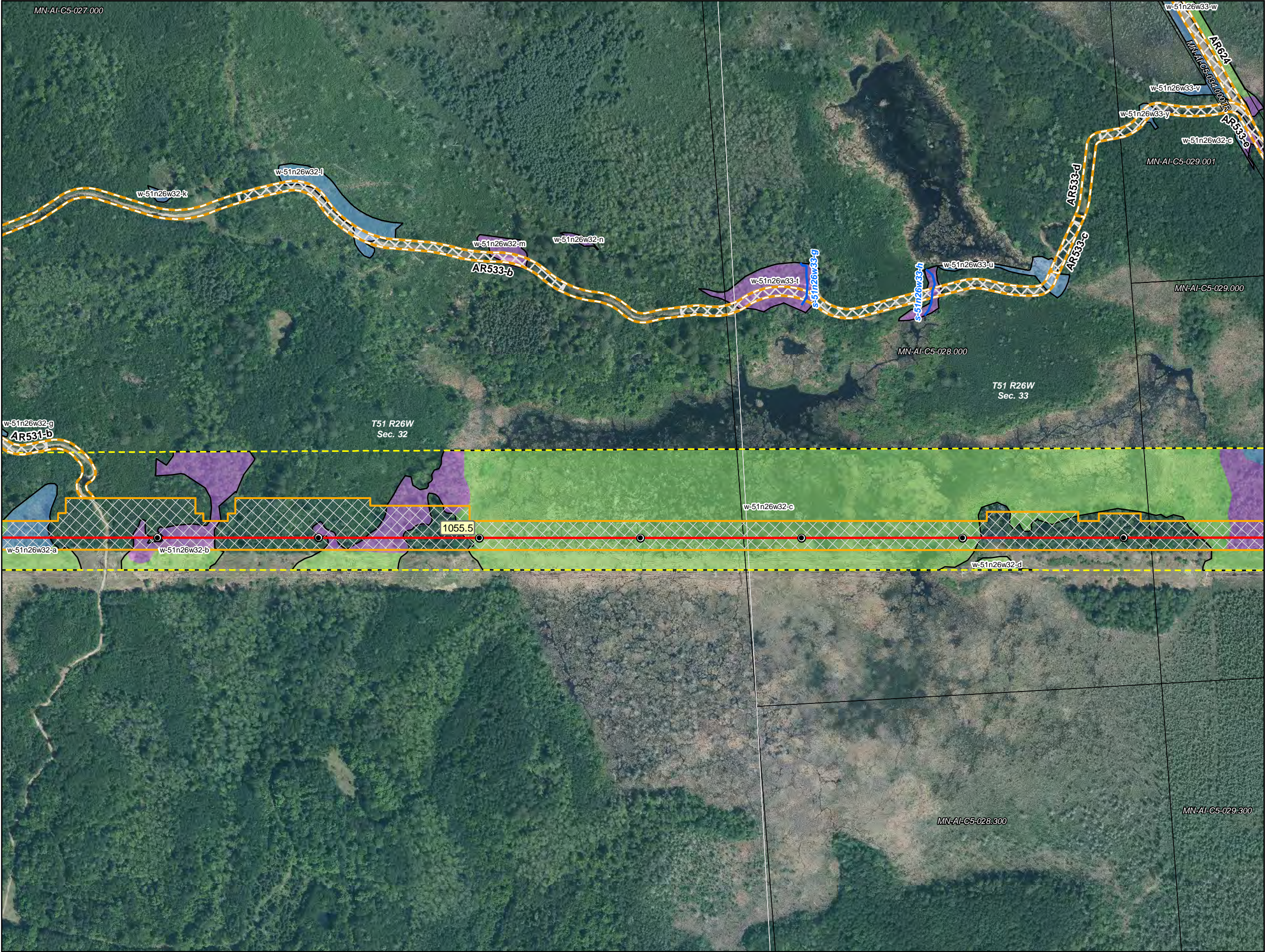
Environmental Field Data

- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies**
- Lake/Pond
 - Riverine



Detailed Route Maps
Line 3 Replacement Project
Aitkin County, Minnesota





- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

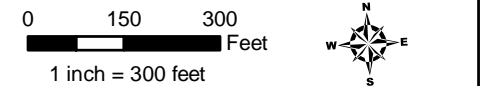
Environmental Field Data

Wetlands

Field Delineated Wetland	NWI Wetlands
PEM	PEM
PFO	PFO
PSS	PSS
PUB	PUB

Waterbodies

- Field Delineated Waterbody
- NHD Waterbody
- NWI Waterbodies
 - Lake/Pond
 - Riverine



Detailed Route Maps

Line 3 Replacement Project

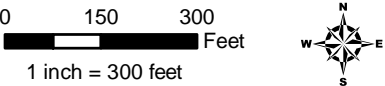
Aitkin County, Minnesota



- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine



Detailed Route Maps
Line 3 Replacement Project
Aitkin County, Minnesota

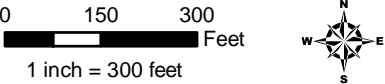




- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

- Wetlands**
- | Field Delineated Wetland | NWI Wetlands |
|--------------------------|--------------|
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine

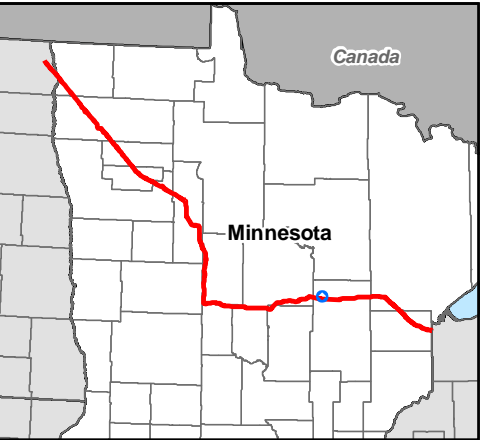


Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota

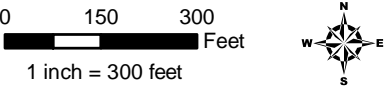




- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

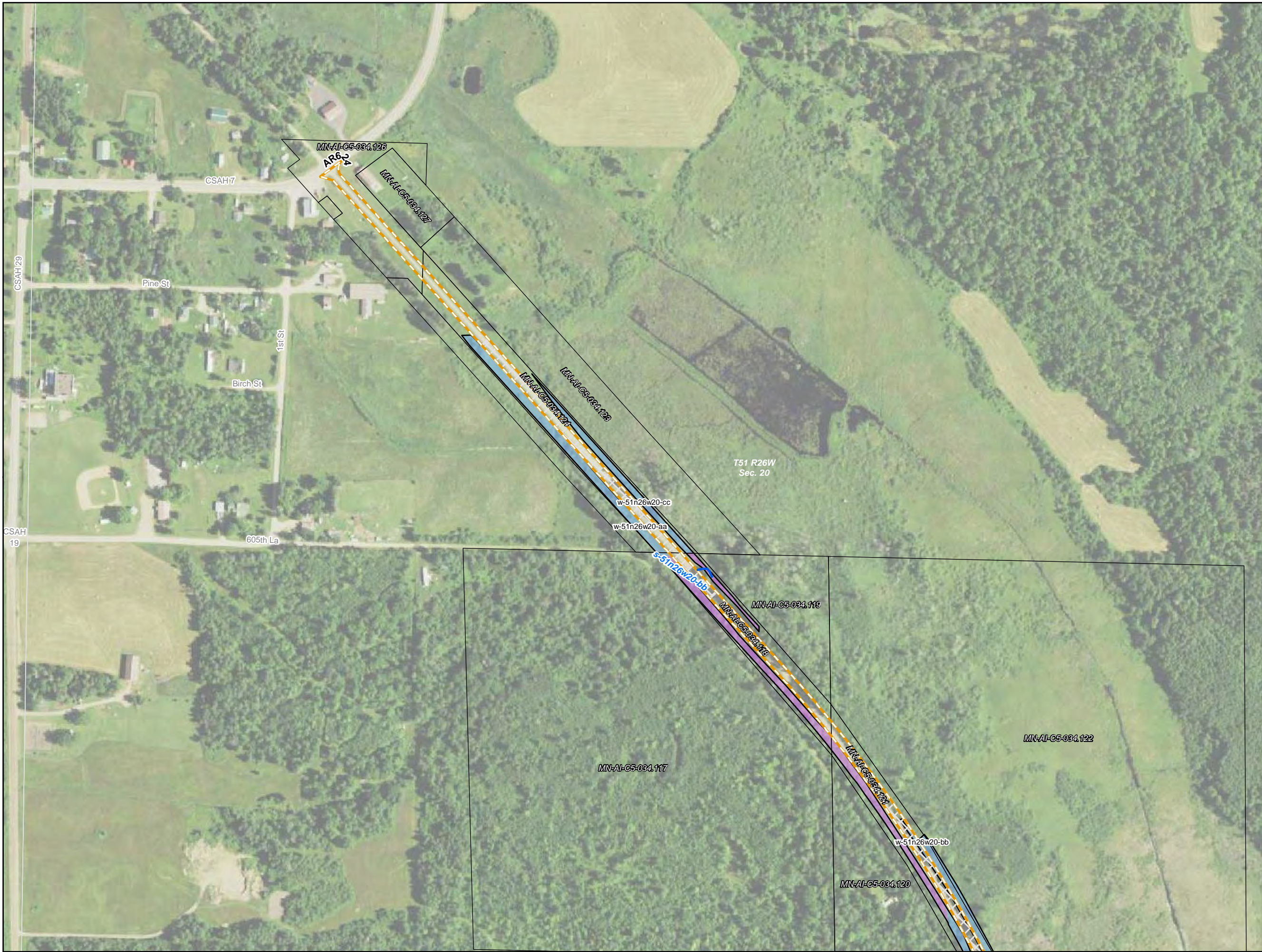
- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies**
- Lake/Pond
 - Riverine



Detailed Route Maps
Line 3 Replacement Project

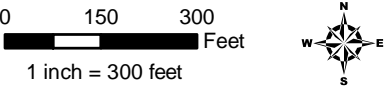
Aitkin County, Minnesota





- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

- Environmental Field Data**
- Wetlands**
- | Field Delineated Wetland | NWI Wetlands |
|--------------------------|--------------|
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine



Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota

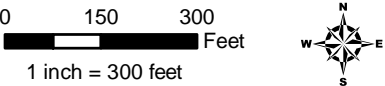




- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

- Wetlands**
- | Field Delineated Wetland | NWI Wetlands |
|--------------------------|--------------|
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine

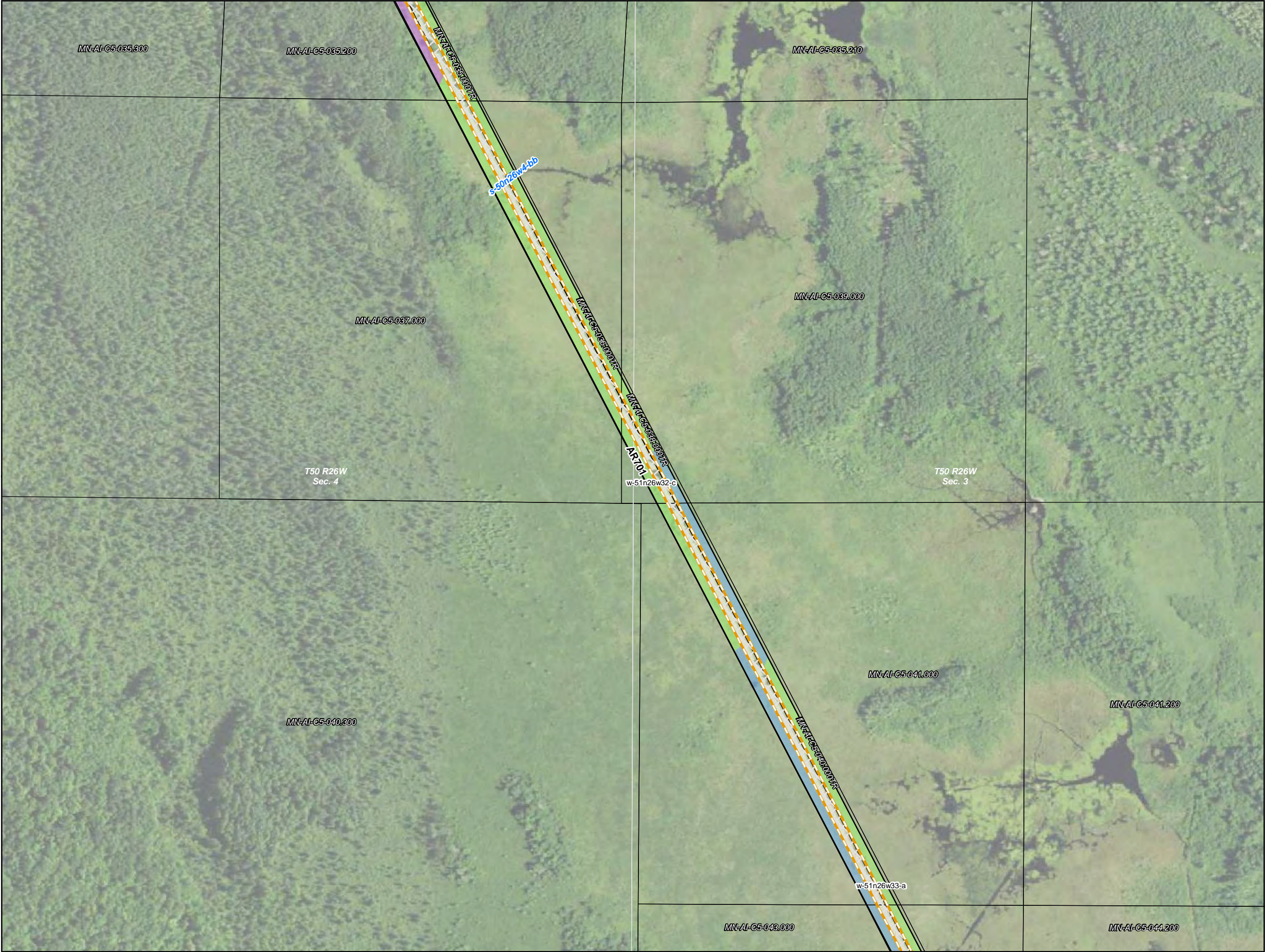


Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota





- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

Wetlands

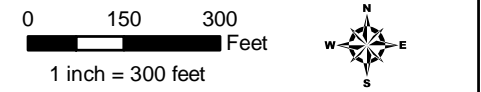
Field Delineated Wetland	NWI Wetlands
PEM	PEM
PFO	PFO
PSS	PSS
PUB	PUB

Waterbodies

- Field Delineated Waterbody
- NHD Waterbody

NWI Waterbodies

- Lake/Pond
- Riverine

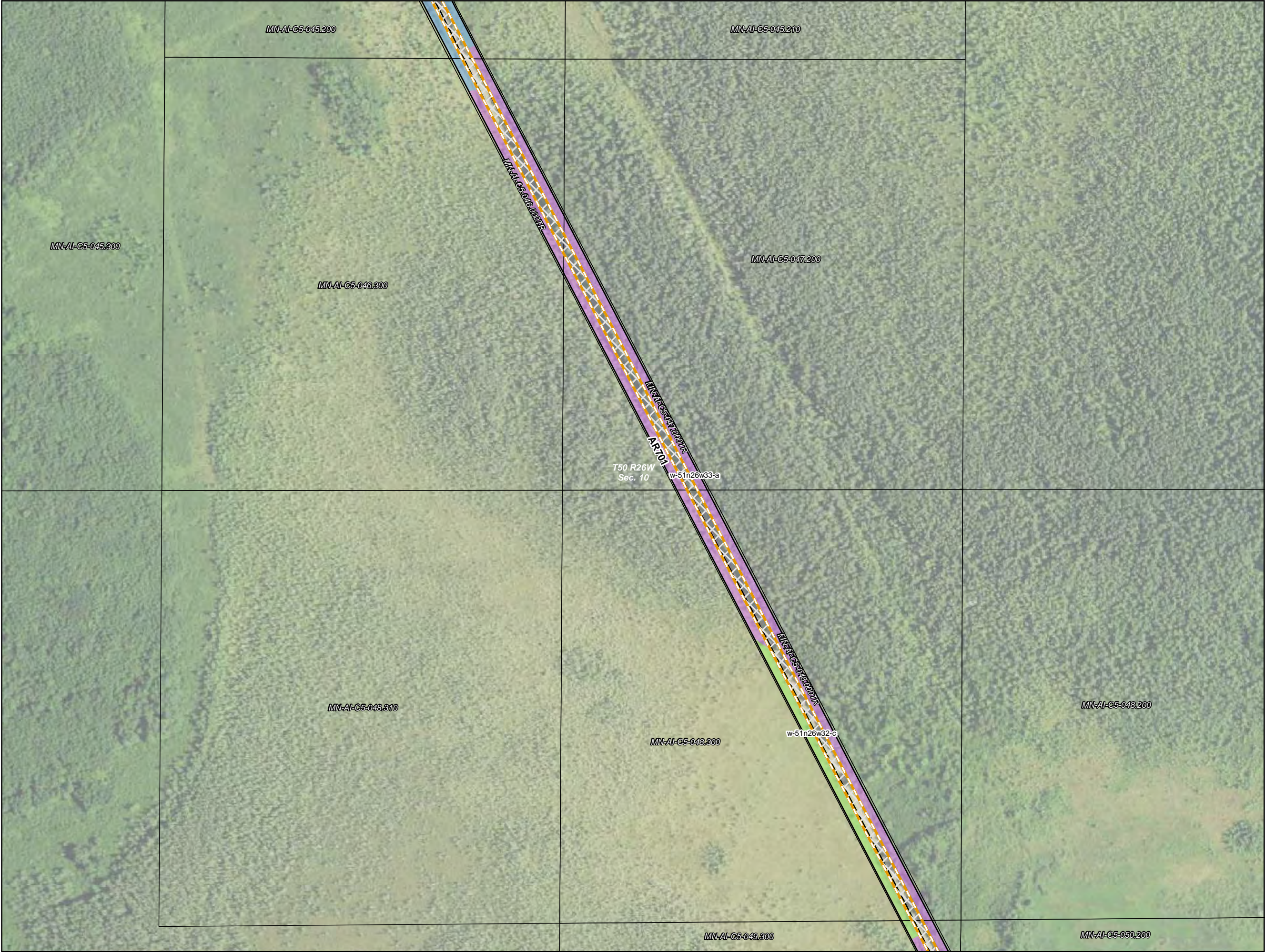


Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota

Source: Z:\Client\IE - H\enbridge\Line_3_Full_Replacement\Permitting\Federal\COE2019_11\Figures\L3_MIN_COE_Alignment_Sheets_RevX.mxd Date: (11/7/2019)

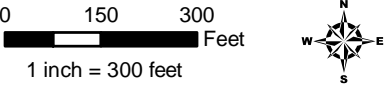


- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

- Wetlands**
- | Field Delineated Wetland | NWI Wetlands |
|--------------------------|--------------|
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |

- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine

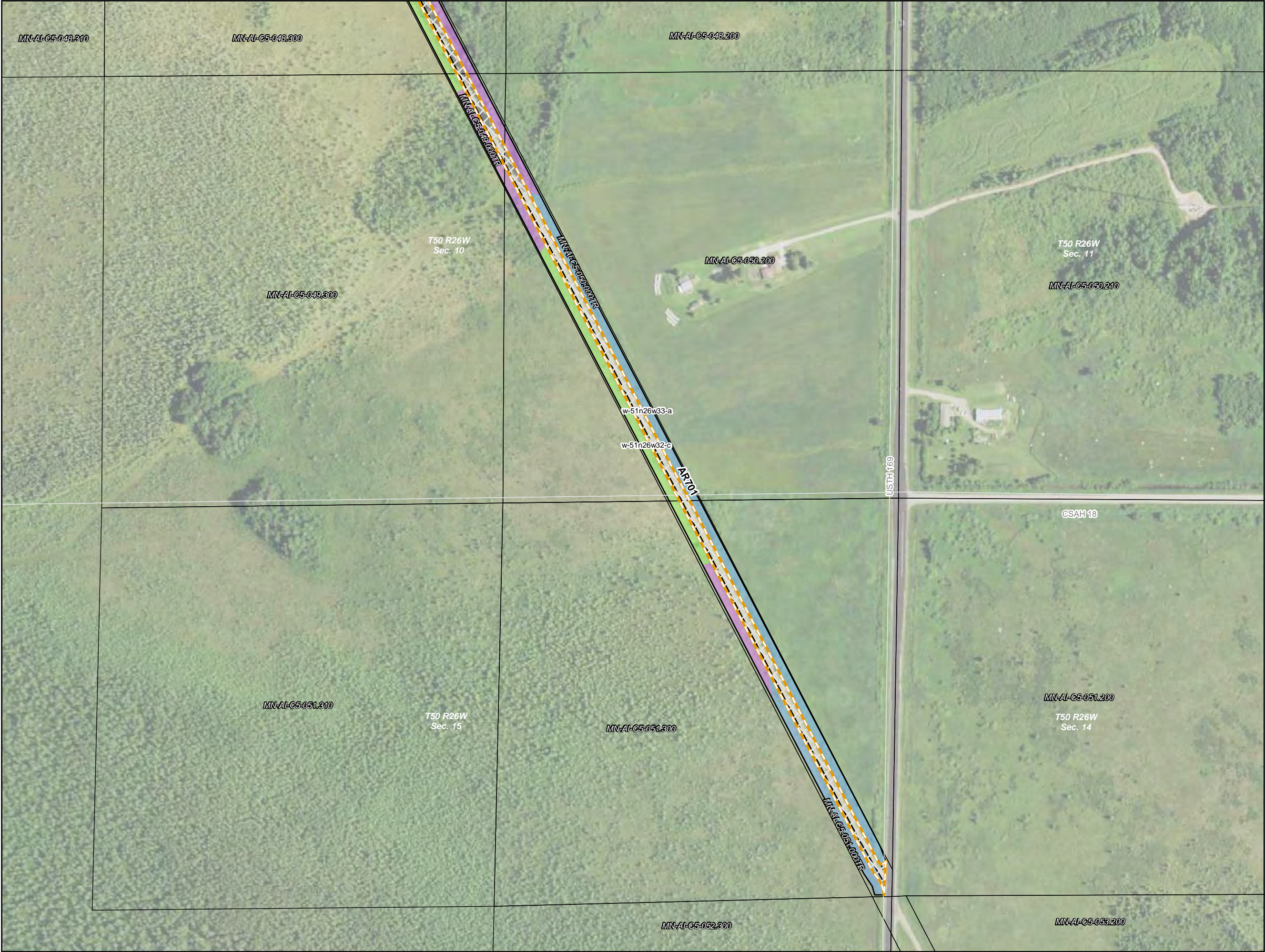


Detailed Route Maps

Line 3 Replacement Project

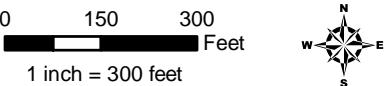
Aitkin County, Minnesota





- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

- Environmental Field Data**
- Wetlands**
- | Field Delineated Wetland | NWI Wetlands |
|--------------------------|--------------|
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine

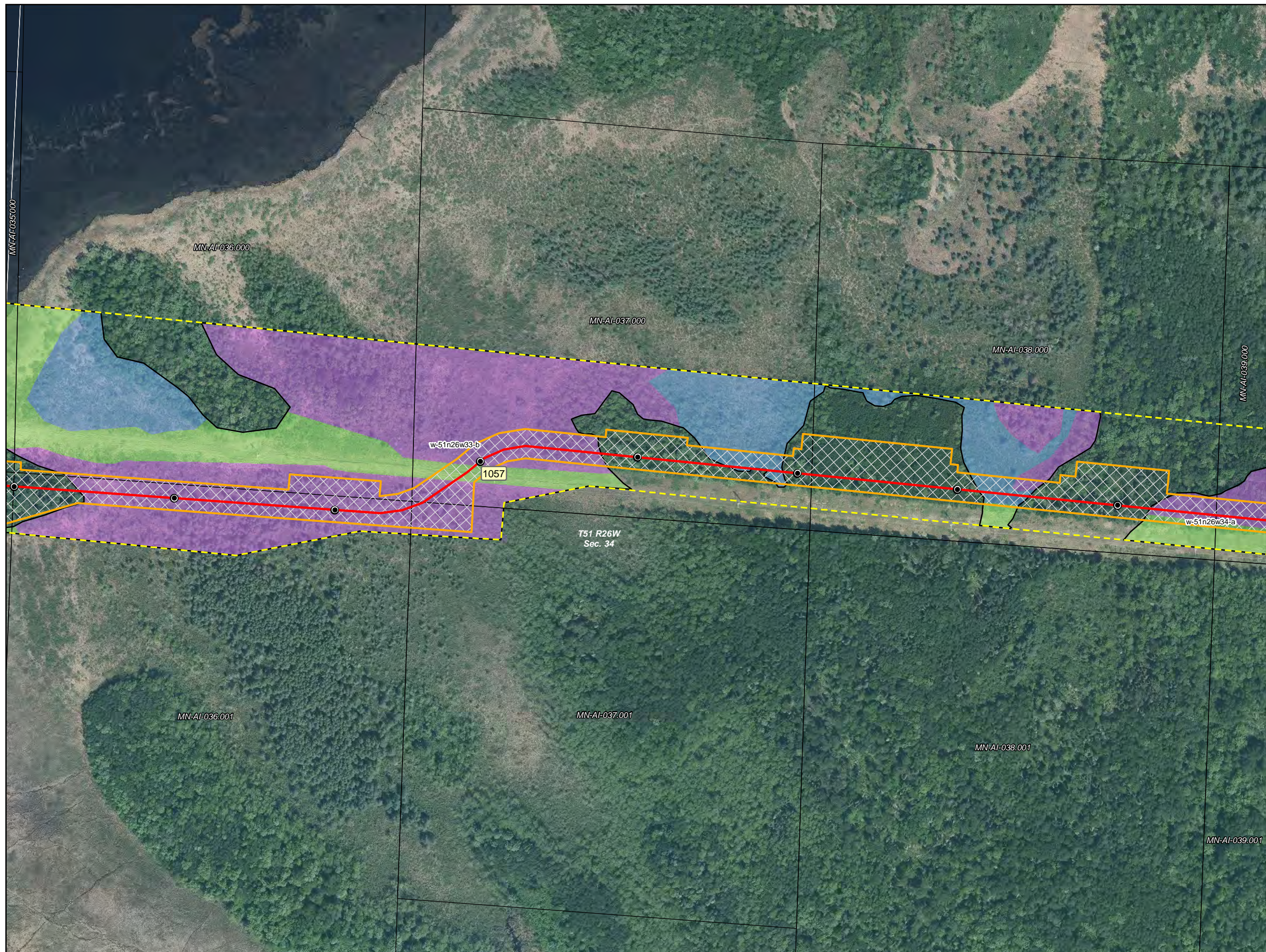
















Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota





-  Milepost
-  Line 3 Centerline
-  Construction Workspace
-  Access Road
-  Haul Road/Corner Improvement
-  COE Permit Area
-  Survey Corridor
-  Field Survey Partially or Not Complete
-  Parcel Boundary
-  County Boundary
-  Section Boundary
-  Cathodic Protection
-  Valve Location
-  Pump Station

Environmental Field Data

Wetlands


Field Delineated Wetland


NWI Wetlands


PEM


 PEM

 PFO

 PFO

 PSS

 PSS

 PUB

Waterbodies

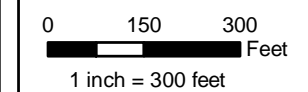
— Field Delineated Waterbody

■ ■ ■ NHD Waterbody

NWI Waterbodies

 Lake/Pond

 Riverine



Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota



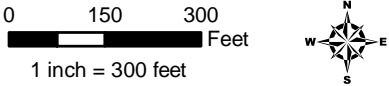


- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

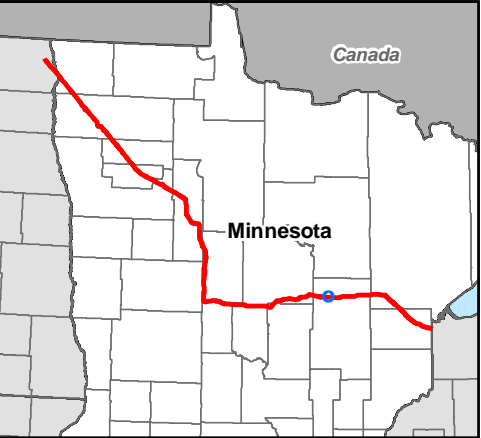
Wetlands	
Field Delineated Wetland	NWI Wetlands
PEM	PEM
PFO	PFO
PSS	PSS
PUB	PUB

- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
 - NWI Waterbodies
 - Lake/Pond
 - Riverine



Detailed Route Maps
Line 3 Replacement Project
Aitkin County, Minnesota

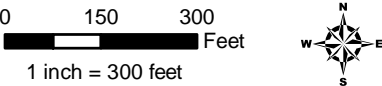




- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

- Wetlands**
- | Field Delineated Wetland | NWI Wetlands |
|--------------------------|--------------|
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine

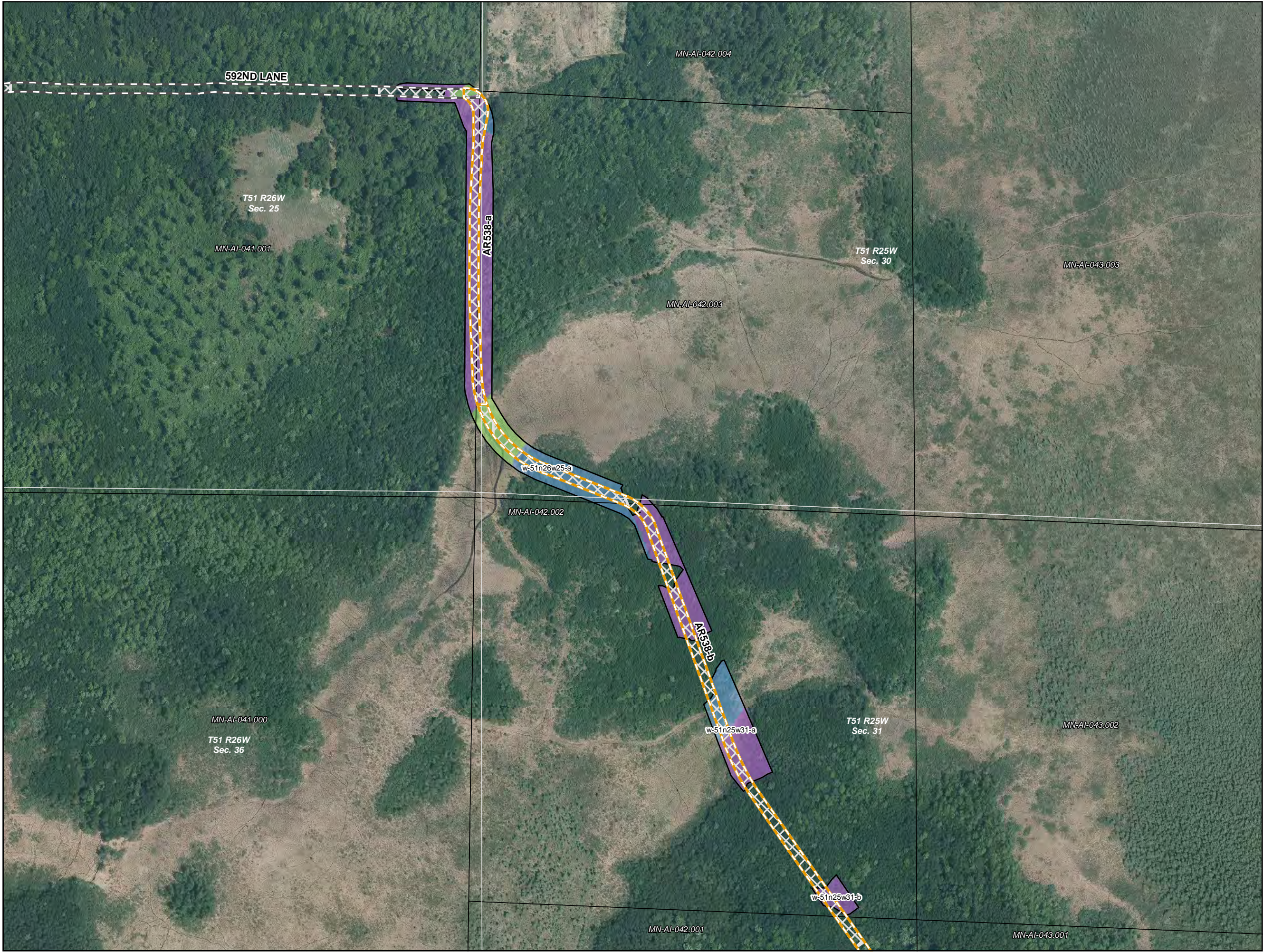


Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota

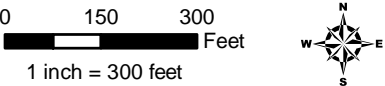




- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

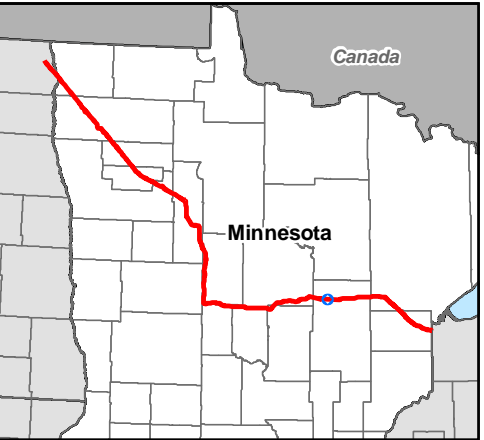
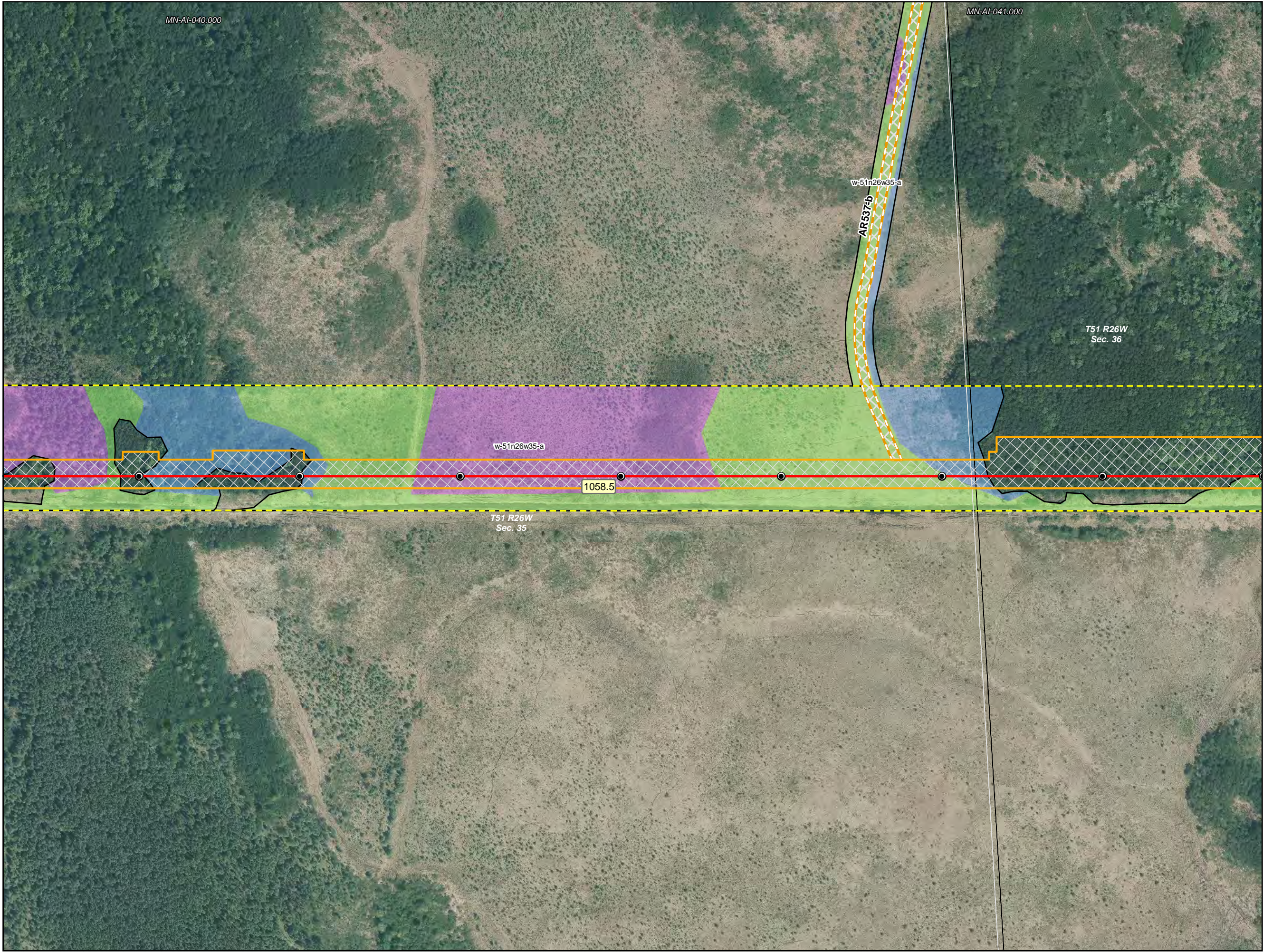
Environmental Field Data

- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
 - NWI Waterbodies
 - Lake/Pond
 - Riverine



Detailed Route Maps
Line 3 Replacement Project
Aitkin County, Minnesota

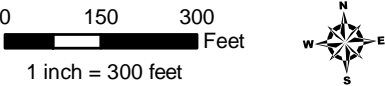




- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

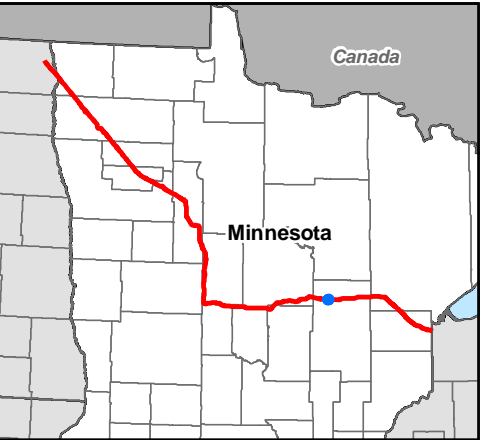
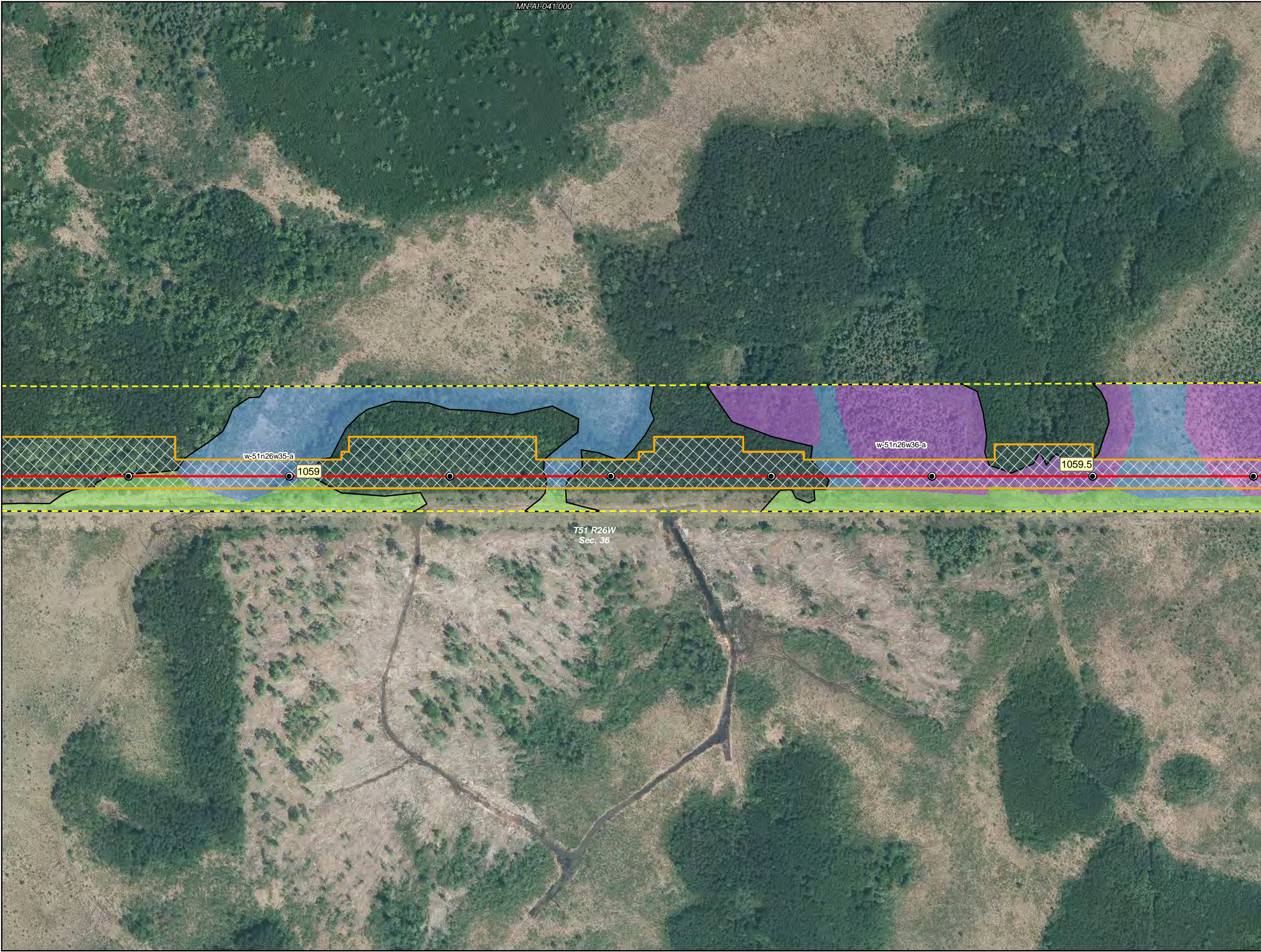
Environmental Field Data

- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine



Detailed Route Maps
Line 3 Replacement Project
Aitkin County, Minnesota

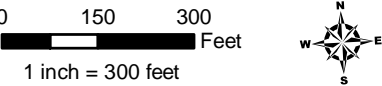




- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

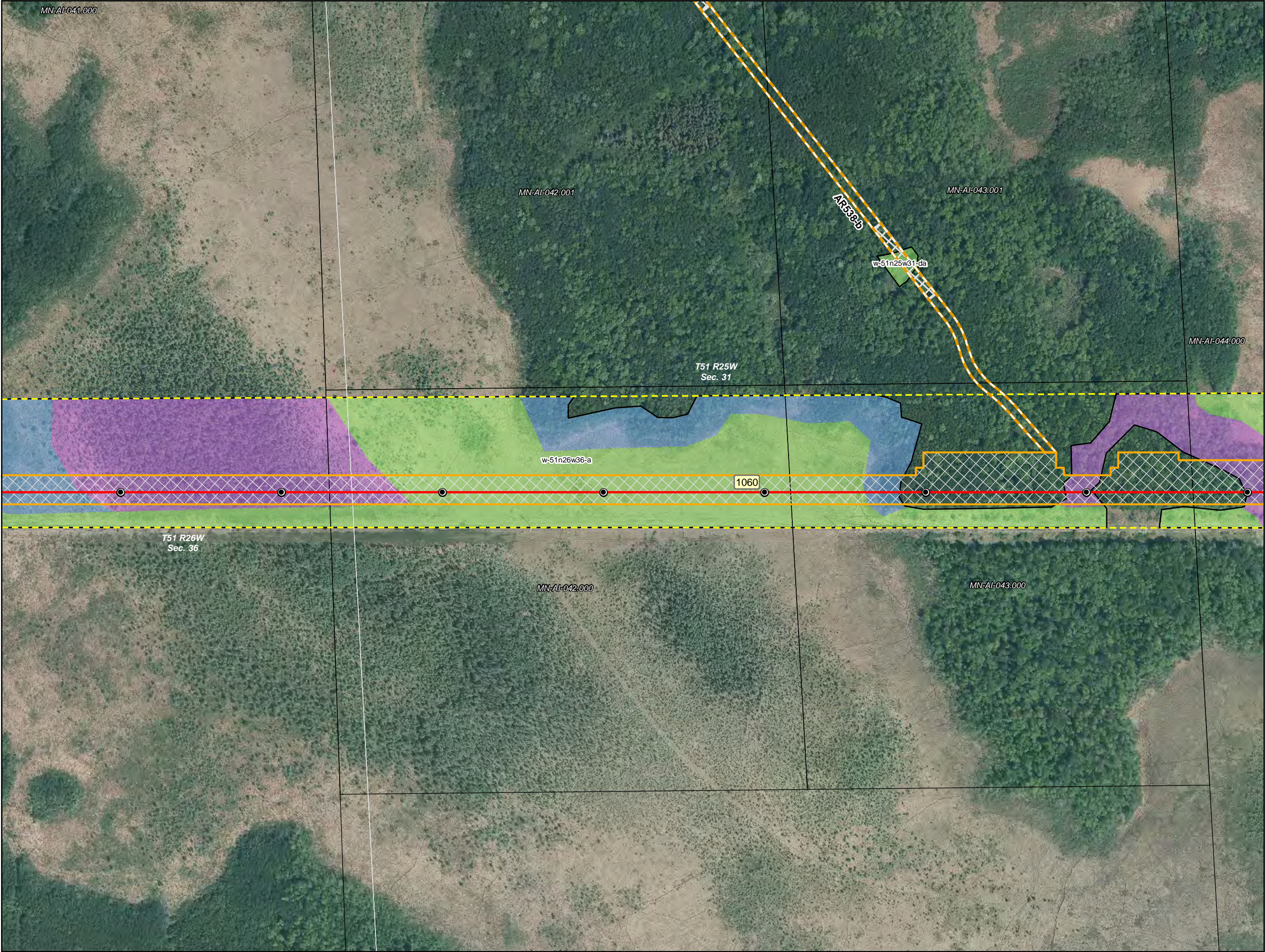
Environmental Field Data

- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine



Detailed Route Maps
Line 3 Replacement Project
Aitkin County, Minnesota





- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

Wetlands

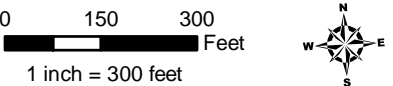
Field Delineated Wetland	NWI Wetlands
PEM	PEM
PFO	PFO
PSS	PSS
PUB	PUB

Waterbodies

- Field Delineated Waterbody
- NHD Waterbody

NWI Waterbodies

- Lake/Pond
- Riverine



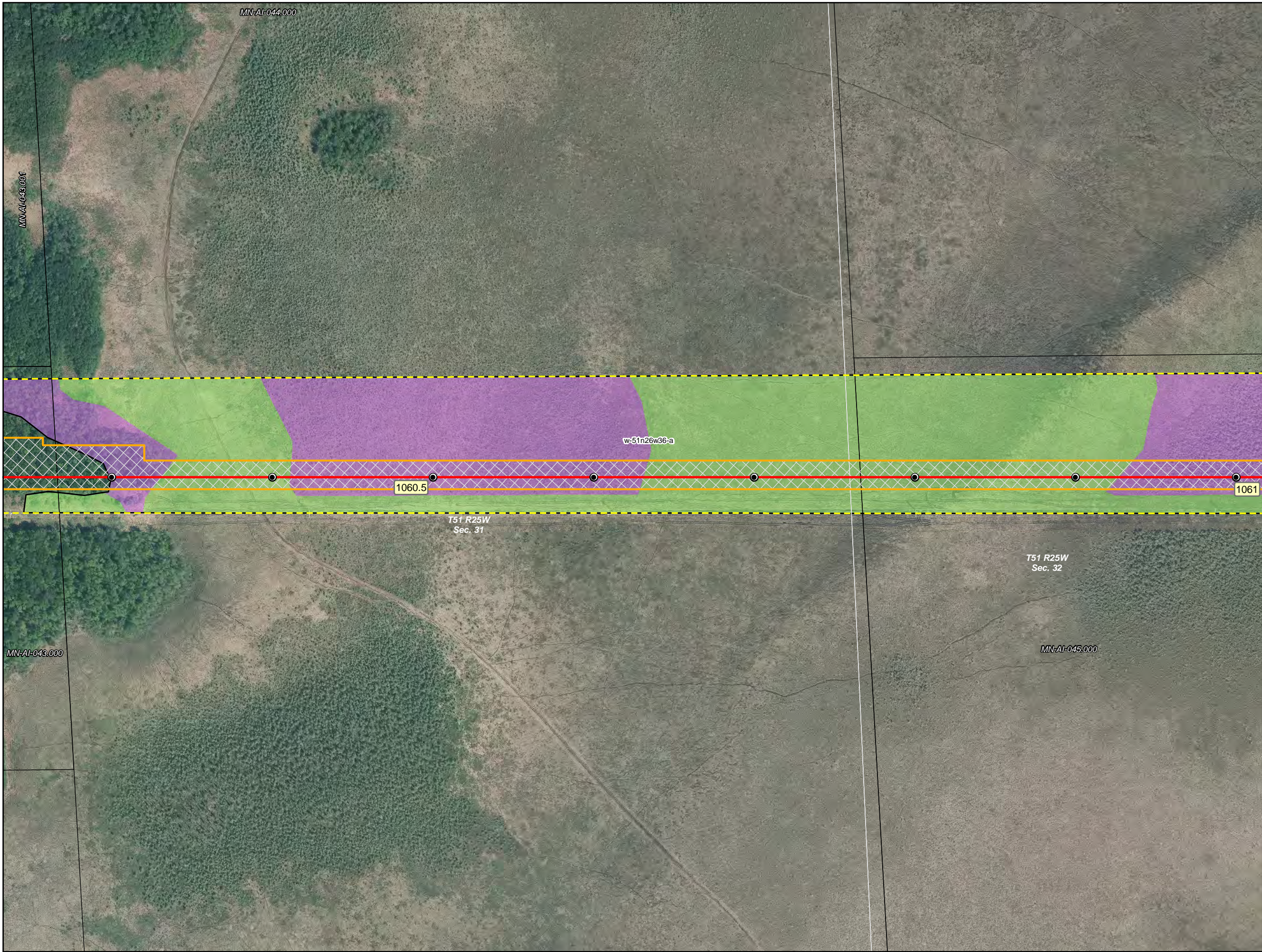
Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota



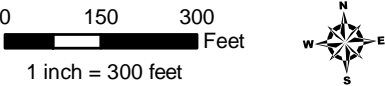
Source: Z:\Client\Aitkin\Aitkin\Line 3_Full_Replacement\Permitting\Federal\COE\2019_11\Figures\3_MN_COE_Alignment_Sheets_RevX.mxd Date: 11/03/2019



- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
- NWI Waterbodies**
- Lake/Pond
 - Riverine

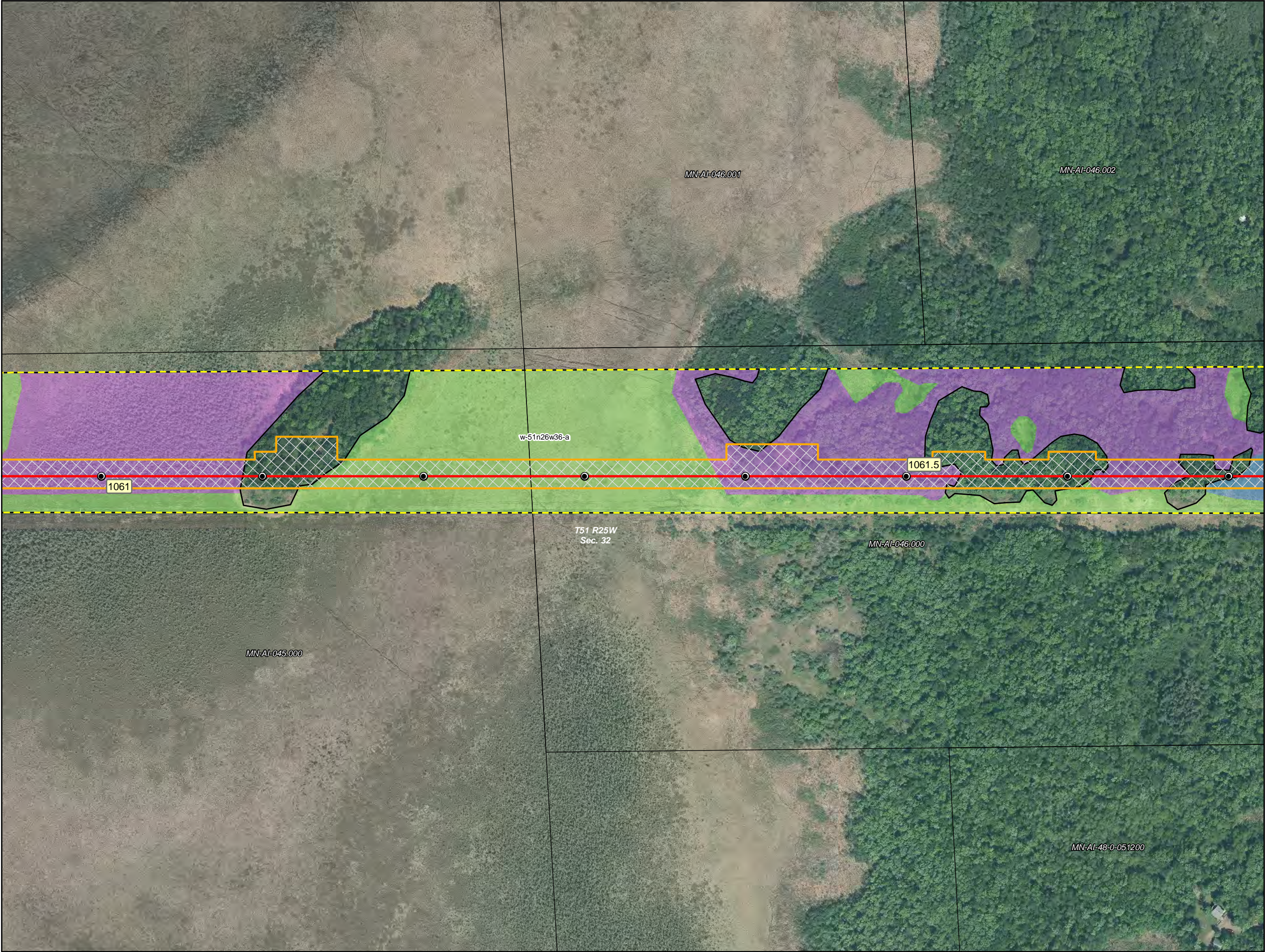


Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota

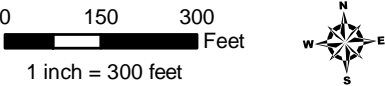




- Milepost
- Line 3 Centerline
- ▭ Construction Workspace
- ▭ Access Road
- ▭ Haul Road/Corner Improvement
- ▭ COE Permit Area
- ▭ Survey Corridor
- ▭ Field Survey Partially or Not Complete
- ▭ Parcel Boundary
- ▭ County Boundary
- ▭ Section Boundary
- ▭ Cathodic Protection
- ▭ Valve Location
- ▭ Pump Station

Environmental Field Data

- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - - - NHD Waterbody
- NWI Waterbodies
- Lake/Pond
 - Riverine

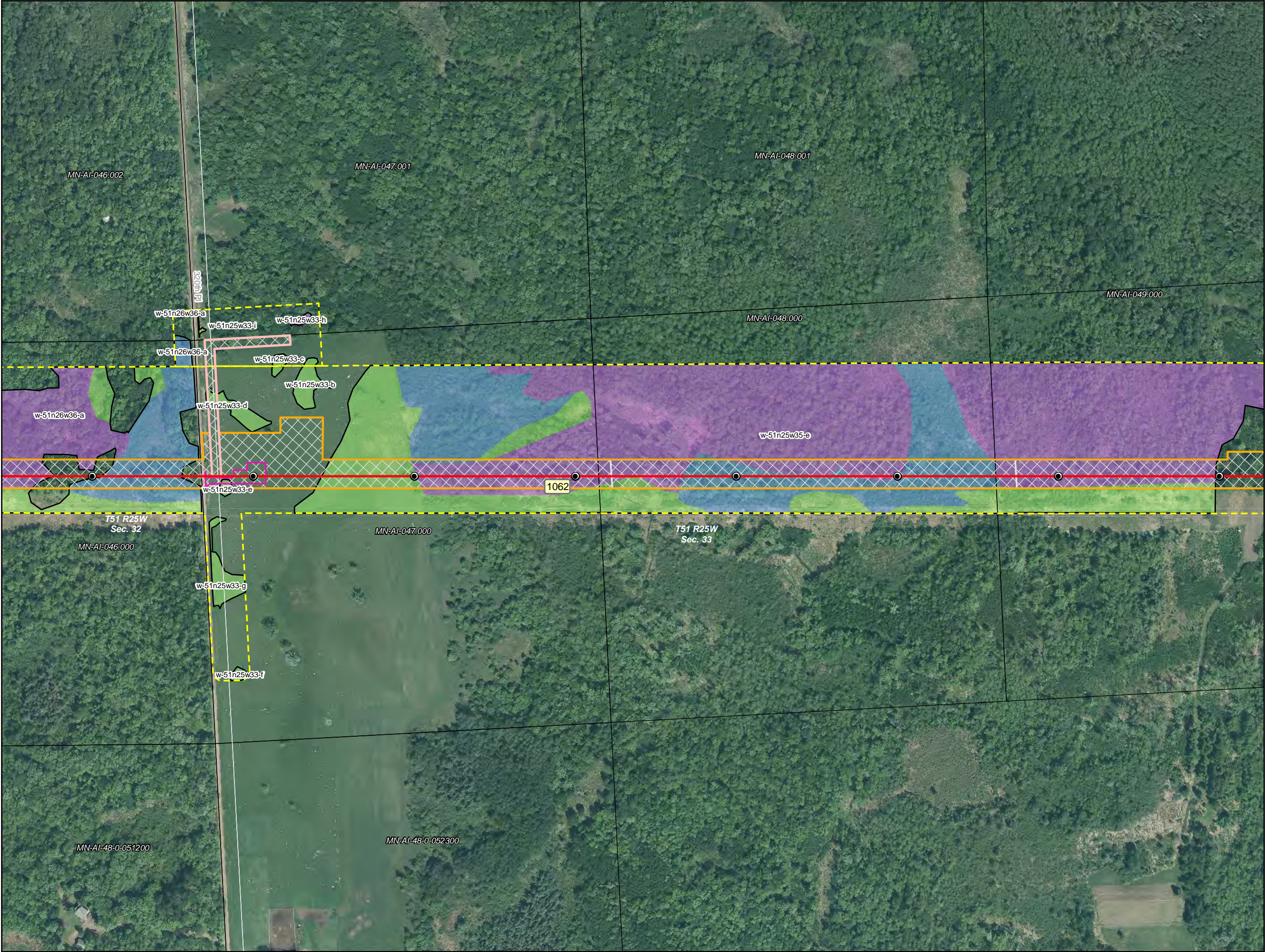


Detailed Route Maps

Line 3 Replacement Project

Aitkin County, Minnesota

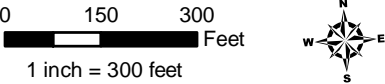




- Milepost
- Line 3 Centerline
- Construction Workspace
- Access Road
- Haul Road/Corner Improvement
- COE Permit Area
- Survey Corridor
- Field Survey Partially or Not Complete
- Parcel Boundary
- County Boundary
- Section Boundary
- Cathodic Protection
- Valve Location
- Pump Station

Environmental Field Data

- Wetlands**
- | | |
|--------------------------|--------------|
| Field Delineated Wetland | NWI Wetlands |
| PEM | PEM |
| PFO | PFO |
| PSS | PSS |
| PUB | PUB |
- Waterbodies**
- Field Delineated Waterbody
 - NHD Waterbody
 - NWI Waterbodies
 - Lake/Pond
 - Riverine



Detailed Route Maps
Line 3 Replacement Project

Aitkin County, Minnesota

