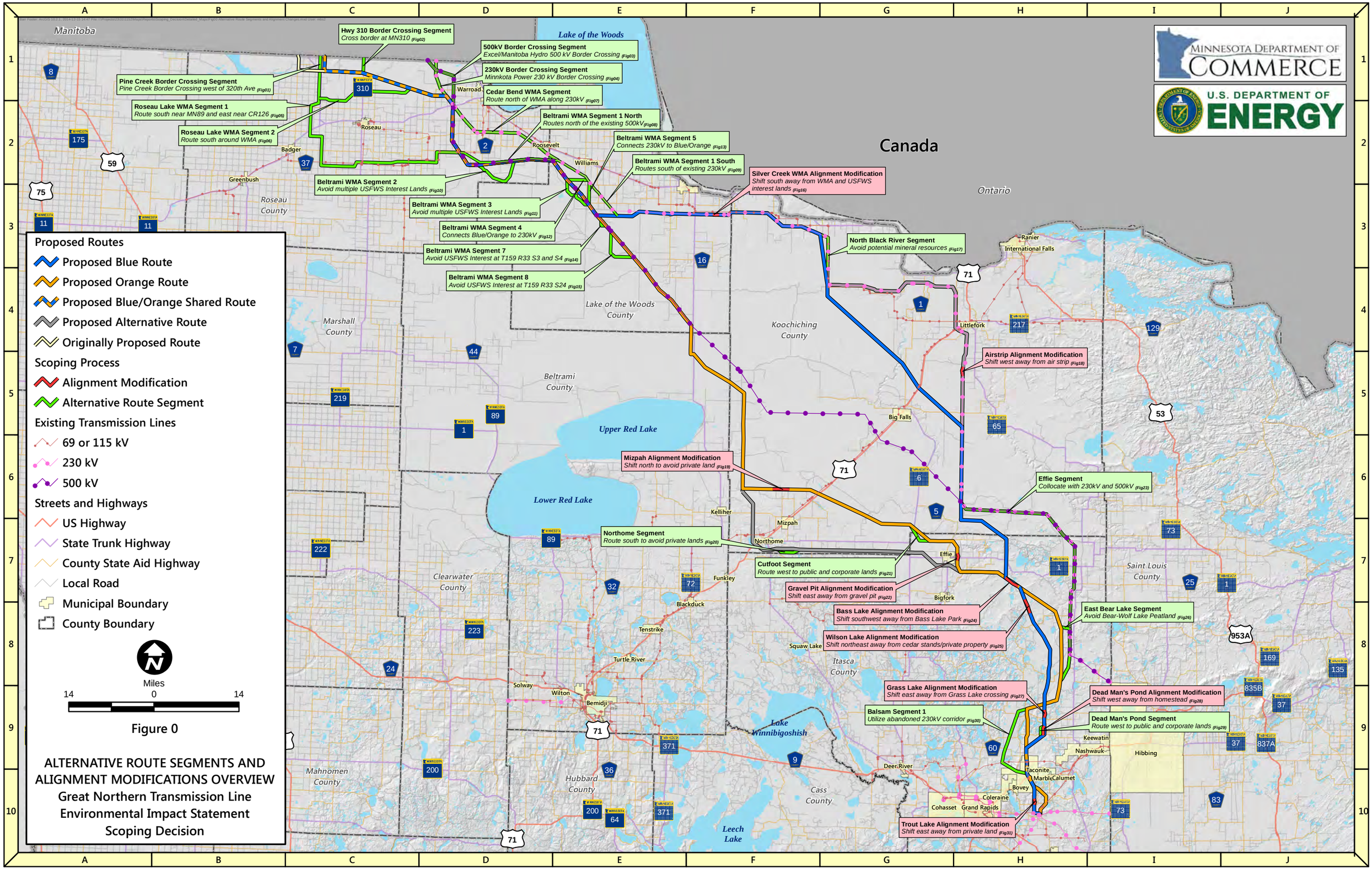
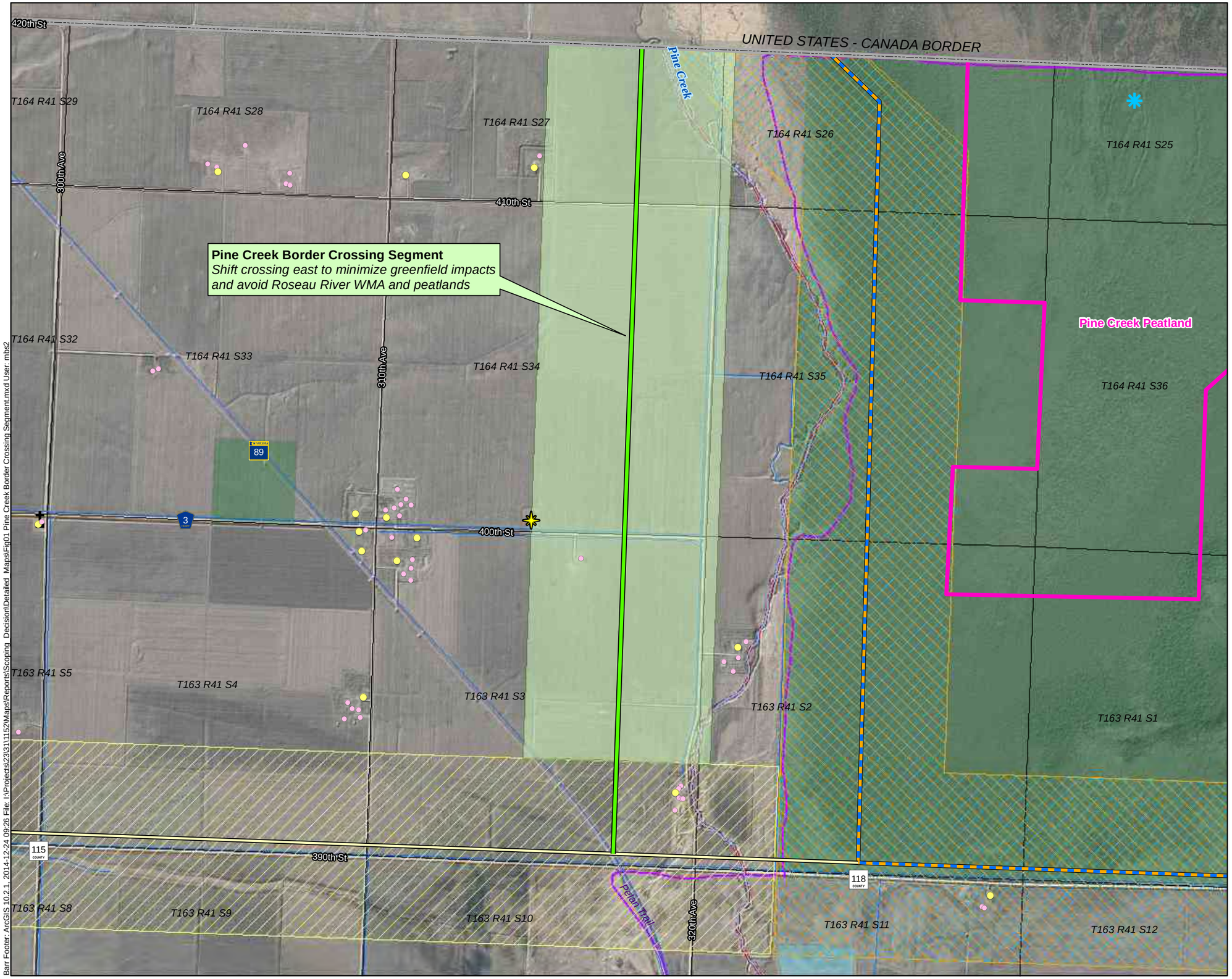

Manitoba
Canada
Ontario
Lake of the Woods
Hwy 310 Border Crossing Segment
Cross border at MN310 (Fig02)
500kV Border Crossing Segment
Excel/Manitoba Hydro 500 kV Border Crossing (Fig03)
230kV Border Crossing Segment
Minnkota Power 230 kV Border Crossing (Fig04)
Pine Creek Border Crossing Segment
Pine Creek Border Crossing west of 320th Ave (Fig01)
Cedar Bend WMA Segment
Route north of WMA along 230kV (Fig07)
Roseau Lake WMA Segment 1
Route south near MN89 and east near CR126 (Fig05)
Beltrami WMA Segment 1 North
Routes north of the existing 500kV (Fig08)
Roseau Lake WMA Segment 2
Route south around WMA (Fig06)
Beltrami WMA Segment 5
Connects 230kV to Blue/Orange (Fig13)
Beltrami WMA Segment 1 South
Routes south of existing 230kV (Fig09)
Silver Creek WMA Alignment Modification
Shift south away from WMA and USFWS interest lands (Fig16)
Beltrami WMA Segment 2
Avoid multiple USFWS Interest Lands (Fig10)
Beltrami WMA Segment 3
Avoid multiple USFWS Interest Lands (Fig11)
Beltrami WMA Segment 4
Connects Blue/Orange to 230kV (Fig12)
Beltrami WMA Segment 7
Avoid USFWS Interest at T159 R33 S3 and S4 (Fig14)
Beltrami WMA Segment 8
Avoid USFWS Interest at T159 R33 S24 (Fig15)
North Black River Segment
Avoid potential mineral resources (Fig17)
Airstrip Alignment Modification
Shift west away from air strip (Fig18)
Mizpah Alignment Modification
Shift north to avoid private land (Fig19)
Effie Segment
Collocate with 230kV and 500kV (Fig23)
Northome Segment
Route south to avoid private lands (Fig20)
Cutfoot Segment
Route west to public and corporate lands (Fig21)
Gravel Pit Alignment Modification
Shift east away from gravel pit (Fig22)
Bass Lake Alignment Modification
Shift southwest away from Bass Lake Park (Fig24)
East Bear Lake Segment
Avoid Bear-Wolf Lake Peatland (Fig26)
Wilson Lake Alignment Modification
Shift northeast away from cedar stands/private property (Fig25)
Grass Lake Alignment Modification
Shift east away from Grass Lake crossing (Fig27)
Dead Man's Pond Alignment Modification
Shift west away from homestead (Fig28)
Balsam Segment 1
Utilize abandoned 230kV corridor (Fig30)
Dead Man's Pond Segment
Route west to public and corporate lands (Fig29)
Trout Lake Alignment Modification
Shift east away from private land (Fig31)
Roseau
Badger
Greenbush
Roseau County
Warroad
Roosevelt
Williams
Ranier
International Falls
Littlefork
Big Falls
Marshall County
Lake of the Woods County
Koochiching County
Beltrami County
Upper Red Lake
Lower Red Lake
Kelliher
Mizpah
Northome
Effie
Bigfork
Funkley
Blackduck
Tenstrike
Turtle River
Solway
Wilton
Bemidji
Clearwater County
Saint Louis County
Squaw Lake
Itasca County
Lake Winnibigoshish
Deer River
Cass County
Hubbard County
Mahnomen County
Leech Lake
Taconite
Marble
Calumet
Bovey
Coleraine
Cohasset
Grand Rapids
Keewatin
Nashwauk
Hibbing
Proposed Routes
Proposed Blue Route
Proposed Orange Route
Proposed Blue/Orange Shared Route
Proposed Alternative Route
Originally Proposed Route
Scoping Process
Alignment Modification
Alternative Route Segment
Existing Transmission Lines
69 or 115 kV
230 kV
500 kV
Streets and Highways
US Highway
State Trunk Highway
County State Aid Highway
Local Road
Municipal Boundary
County Boundary
Miles
14
0
14
Figure 0
ALTERNATIVE ROUTE SEGMENTS AND ALIGNMENT MODIFICATIONS OVERVIEW
Great Northern Transmission Line
Environmental Impact Statement
Scoping Decision
MINNESOTA DEPARTMENT OF COMMERCE
U.S. DEPARTMENT OF ENERGY



Residence
Non-Residential Structure
Church
Cemetery
Calcareous Fen
Snowmobile Trail
PWI Watercourse
Scientific and Natural Area

Non-Private Land Ownership (Assumed)
Corporate Land
State Land

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

Proposed Routes
Proposed Blue/Orange Shared Route
Originally Proposed Route
Proposed Blue Route
Proposed Orange Route
Originally Proposed Route

Feet
1,500 0 1,500

Figure 1

(Overview Ref. C-1)

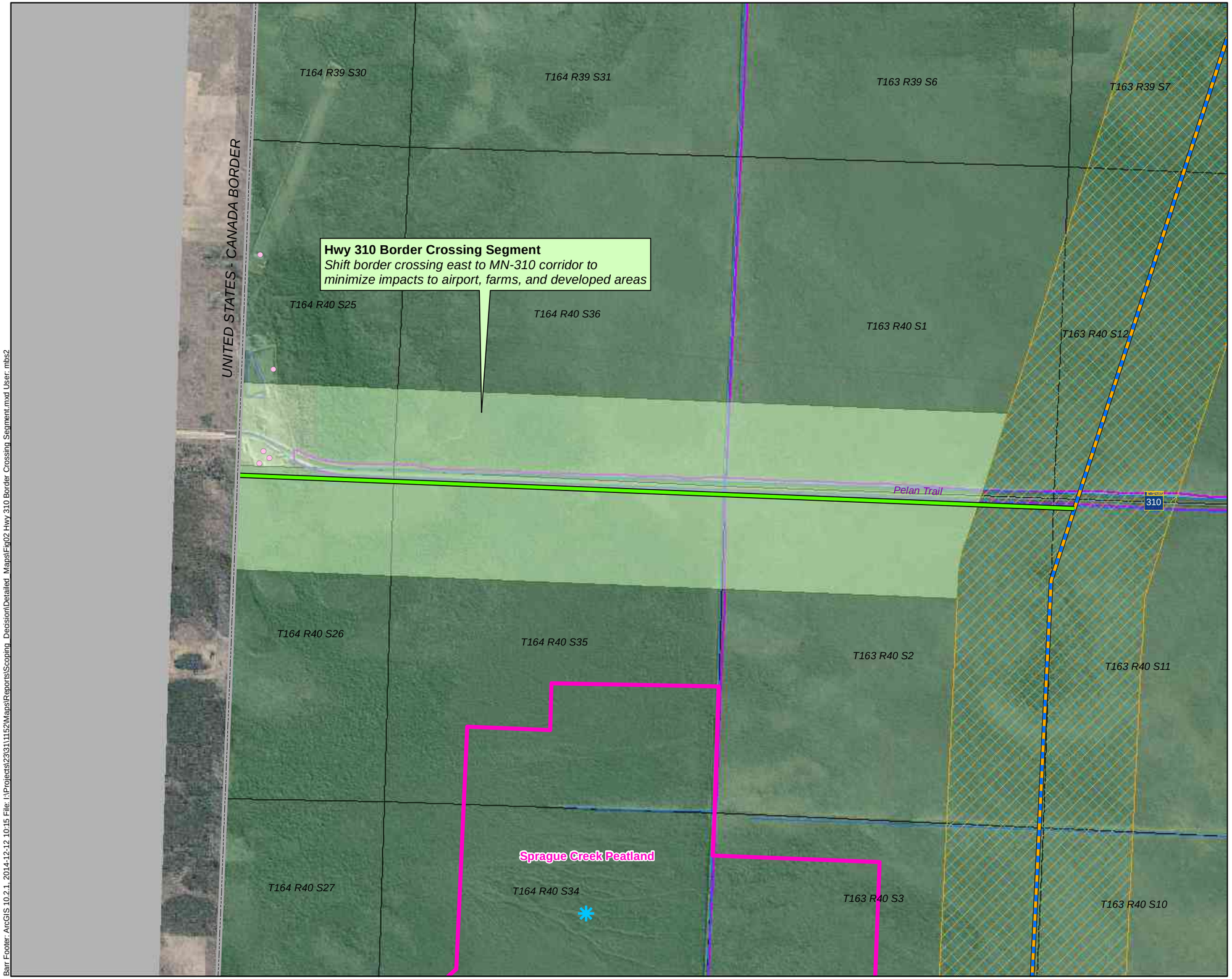
PINE CREEK BORDER CROSSING SEGMENT

Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY

MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 09:26 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig01 Pine Creek Border Crossing Segment.mxd User: mbs2



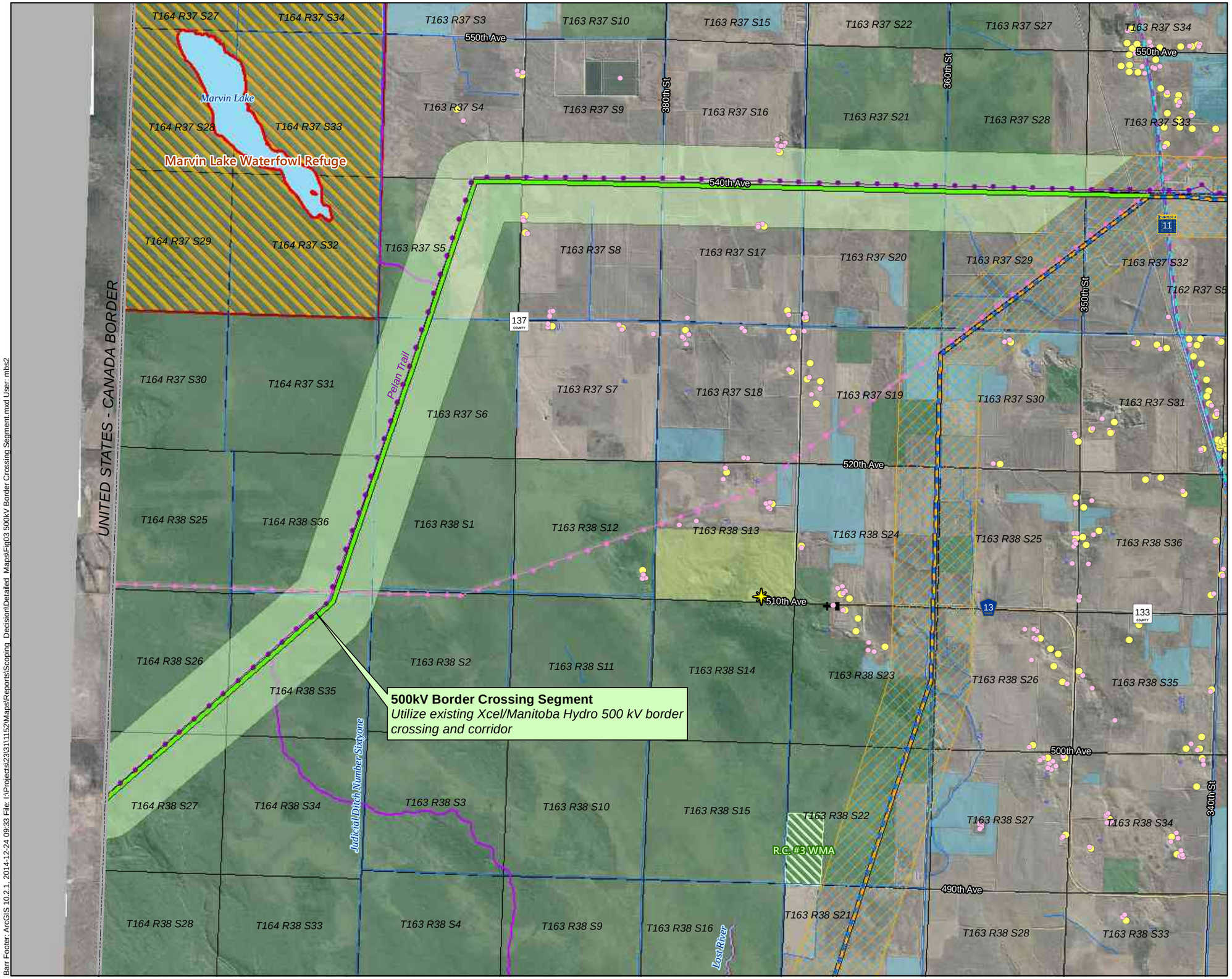
Non-Residential Structure
Calcareous Fen
Snowmobile Trail
Scientific and Natural Area
Non-Private Land Ownership (Assumed)
State Land
Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment
Proposed Routes
Proposed Blue/Orange Shared Route
Proposed Blue Route
Proposed Orange Route

Feet
1,500 0 1,500

Figure 2
(Overview Ref. C-1)
HWY 310 BORDER CROSSING SEGMENT
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-12 10:15 File: I:\Projects\23\3111152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig02 Hwy 310 Border Crossing Segment.mxd User: mbs2



Residence
Non-Residential Structure
Church
Cemetery
Snowmobile Trail
Scenic Byway
PWI Watercourse
PWI Waterbody
State Game Refuge
Wildlife Management Area

Land Ownership (Assumed)
County Land
Other Public Land
Corporate Land
State Land

Existing Transmission Lines
230 kV
500 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

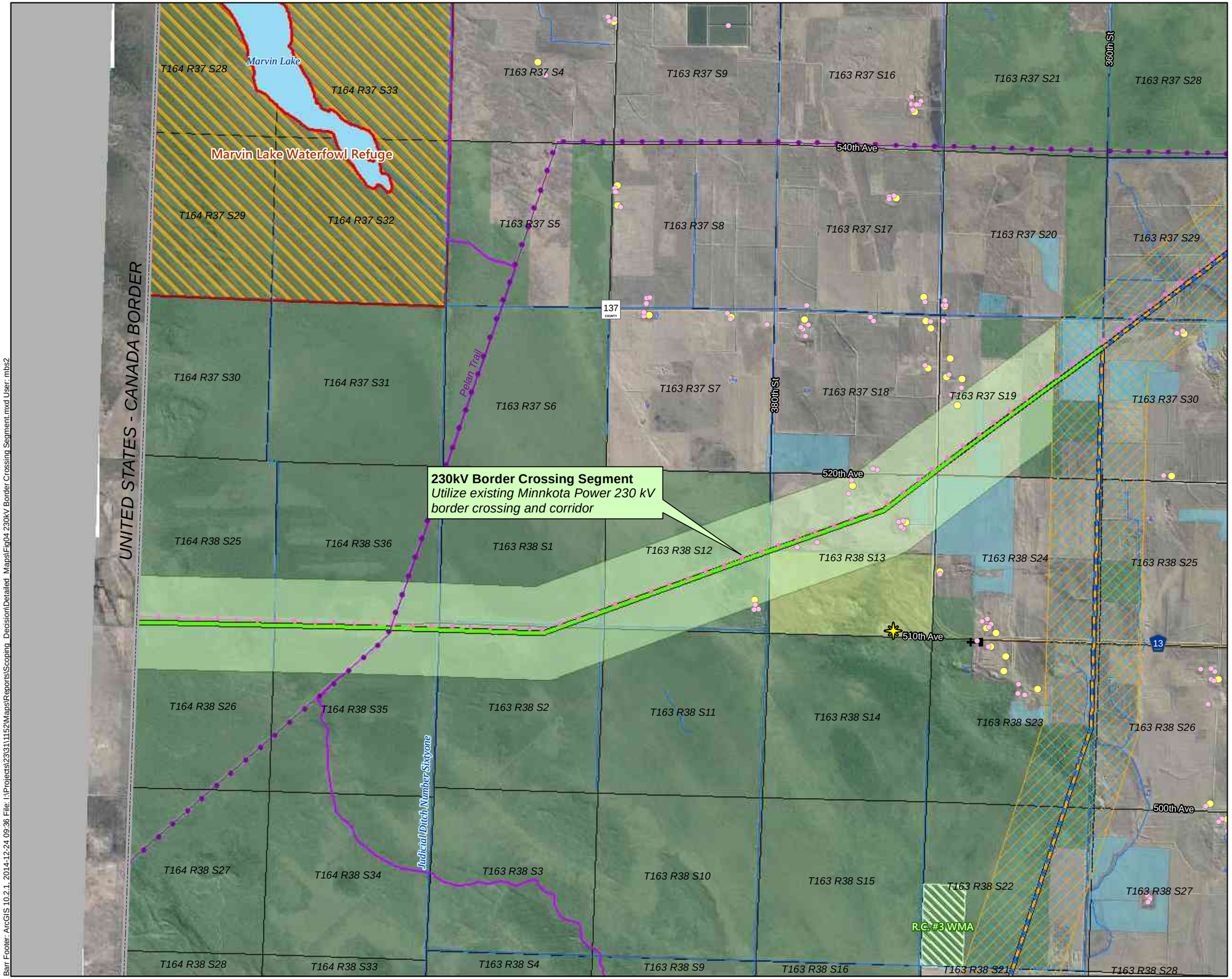
Proposed Routes
Proposed Blue/Orange Shared Route
Proposed Blue Route
Proposed Orange Route

Feet
3,500 0 3,500

Figure 3
(Overview Ref. D-1)
500kV BORDER CROSSING SEGMENT
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 09:33 File: I:\Projects\23\31\11521\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig03 500kV Border Crossing Segment.mxd User: mbs2



Residence
Non-Residential Structure
Church
Cemetery
Snowmobile Trail
PWI Waterbody
State Game Refuge
Wildlife Management Area

Land Ownership (Assumed)
County Land
Other Public Land
Corporate Land
State Land

Existing Transmission Lines
230 kV
500 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

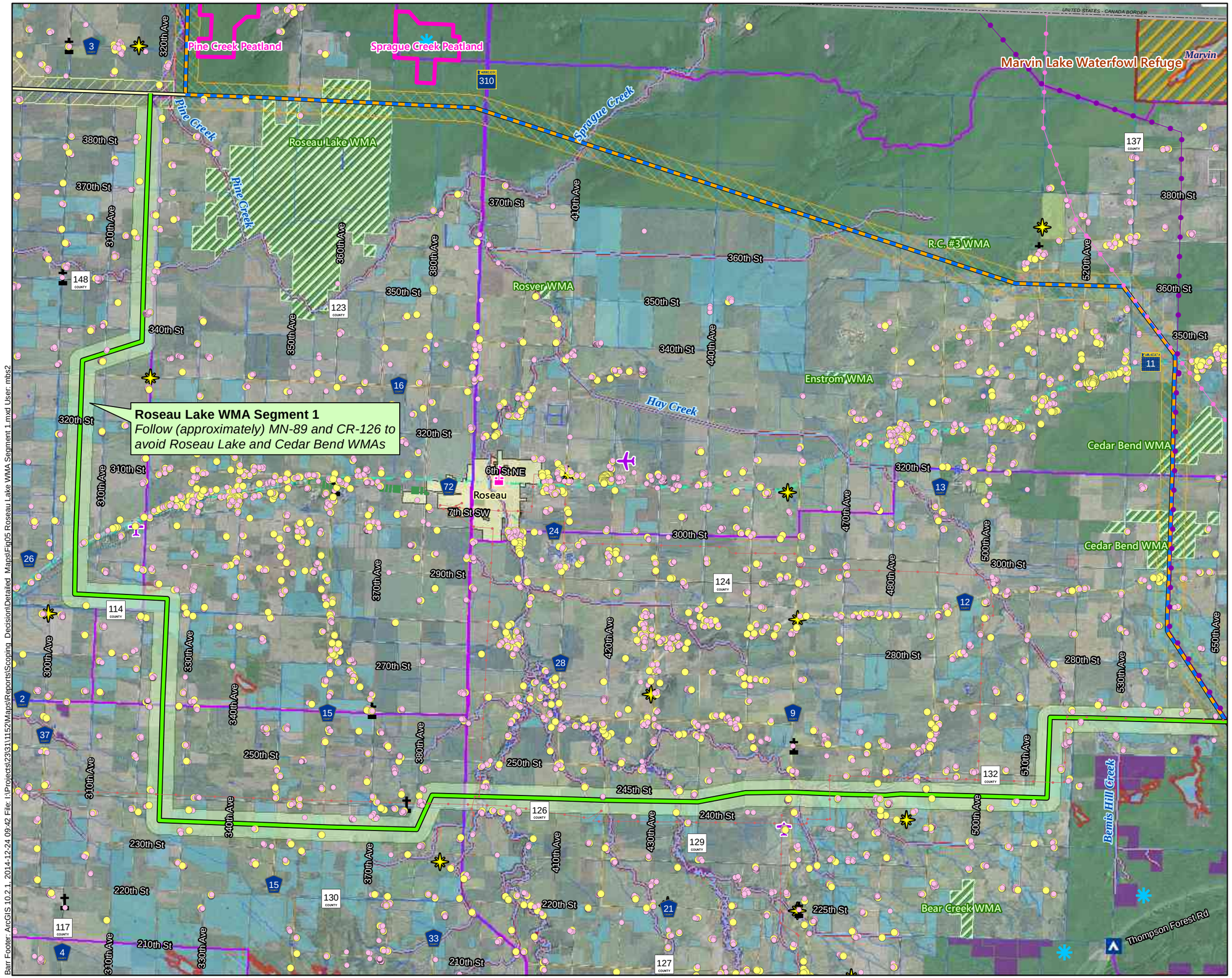
Proposed Routes
Proposed Blue/Orange Shared Route
Proposed Blue Route
Proposed Orange Route

Feet
3,000 0 3,000

Figure 4
(Overview Ref. D-1)
230kV BORDER CROSSING SEGMENT
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 09:36 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig04 230kV Border Crossing Segment.mxd User: mbs2



Residence
Non-Residential Structure
Airstrip
Scenic Byway
PWI Watercourse
PWI Waterbody
Scientific and Natural Area
Wildlife Management Area

Non-Private Land Ownership (Assumed)
County Land
Other Public Land
Corporate Land
State Land
Tribal Land
USFWS Interest Lands

Existing Transmission Lines
69 or 115 kV
230 kV
500 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

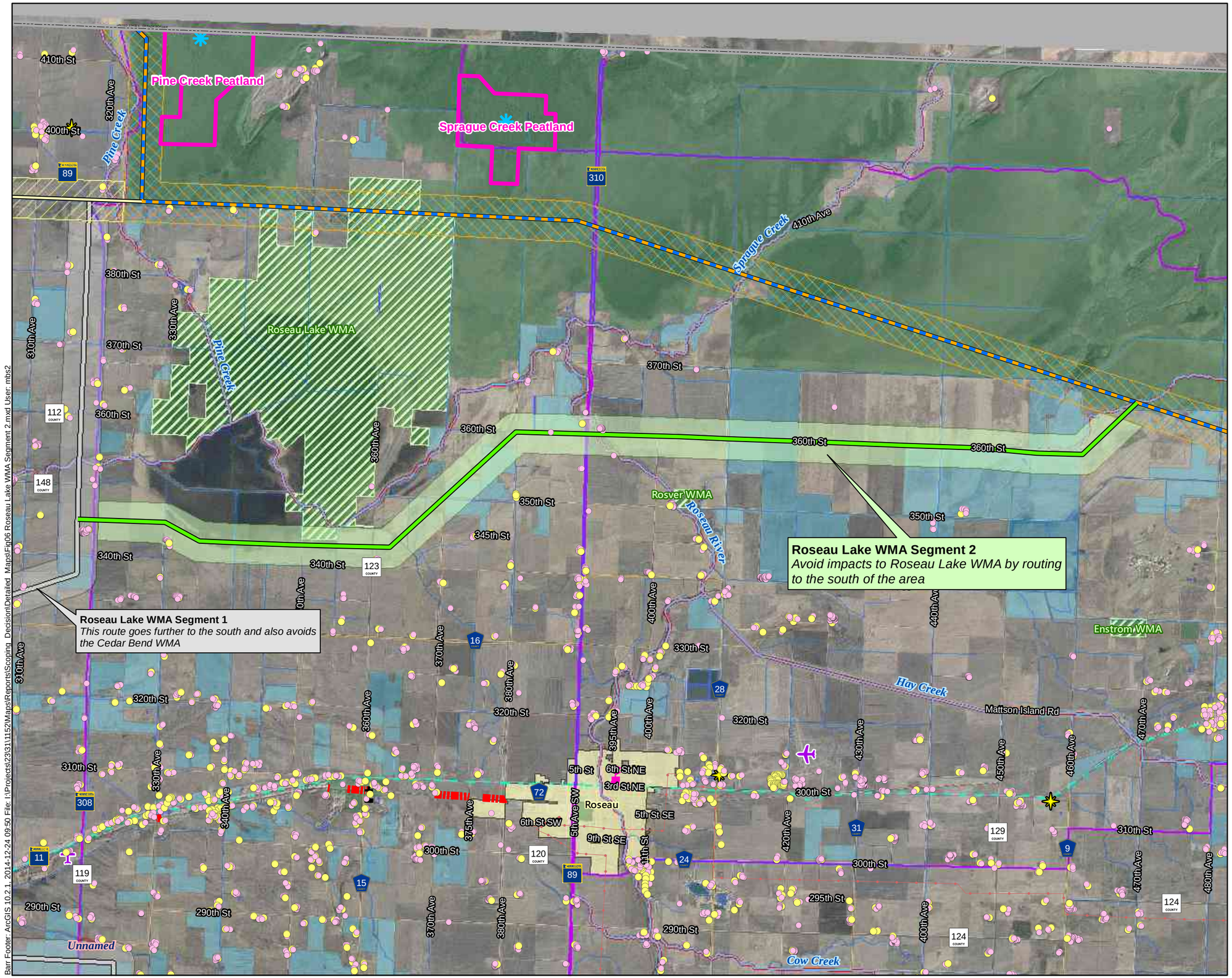
Proposed Routes
Proposed Blue/Orange Shared Route
Originally Proposed Route
Proposed Blue Route
Proposed Orange Route
Originally Proposed Route

Miles
2 0 2

Figure 5
(Overview Ref. C-2)
ROSEAU LAKE WMA SEGMENT 1
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 09:42 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig05 Roseau Lake WMA Segment 1.mxd User: mbs2



Residence
Non-Residential Structure
School
Church
Cemetery
Calcareous Fen
Airstrip
Snowmobile Trail
Scenic Byway
Railroad ROW Prairie
PWI Watercourse
PWI Waterbody
Scientific and Natural Area
Wildlife Management Area

Non-Private Land Ownership (Assumed)
Other Public Land
Corporate Land
State Land

Existing Transmission Lines
69 or 115 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

Proposed Routes
Proposed Blue/Orange Shared Route
Originally Proposed Route
Proposed Blue Route
Proposed Orange Route
Originally Proposed Route

Feet
7,000 0 7,000

Figure 6

(Overview Ref. C-1)

ROSEAU LAKE WMA SEGMENT 2

Great Northern Transmission Line Scoping Decision

Barr Footer: ArcGIS 10.2.1, 2014-12-24 09:50 File: I:\Projects\23\11152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig06 Roseau Lake WMA Segment 2.mxd User: mbs2

Residence
Non-Residential Structure
School
Church
Airport
Fire Tower
State Forest Campground
Snowmobile Trail
Scenic Byway
PWI Watercourse
Wildlife Management Area

Land Ownership (Assumed)
- County Land
- Federal Land
- Corporate Land
- State Land
- Tribal Land
- USFWS Interest Lands

Existing Transmission Lines
- 69 or 115 kV
- 230 kV
- 500 kV

Scoping Process
- Alternative Route Segment Alignment
- Alternative Route Segment

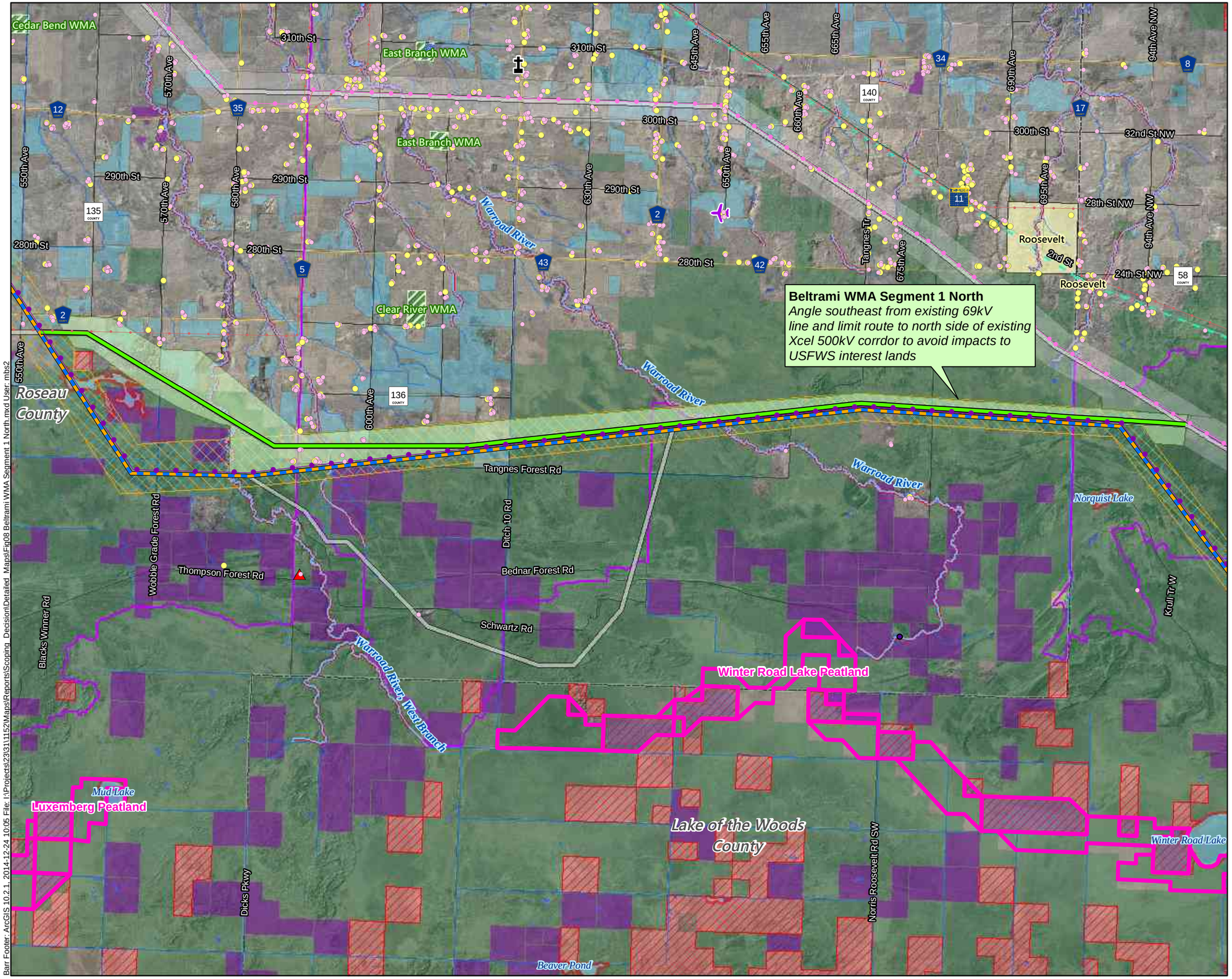
Proposed Routes
- Proposed Blue/Orange Shared Route
- Proposed Blue Route
- Proposed Orange Route

Miles
1.5 0 1.5

Figure 7
(Overview Ref. D-2)
CEDAR BEND WMA SEGMENT
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 09:59 File: I:\Projects\23\3111152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig07 Cedar Bend WMA Segment.mxd User: mbs2



Residence
Non-Residential Structure
Church
Fire Tower
Snowmobile Trail
Scenic Byway
PWI Watercourse
PWI Waterbody
Scientific and Natural Area
Wildlife Management Area

Non-Private Land Ownership (Assumed)
County Land
Federal Land
Corporate Land
State Land
Tribal Land
USFWS Interest Lands
Indian Reservation

Existing Transmission Lines
69 or 115 kV
230 kV
500 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

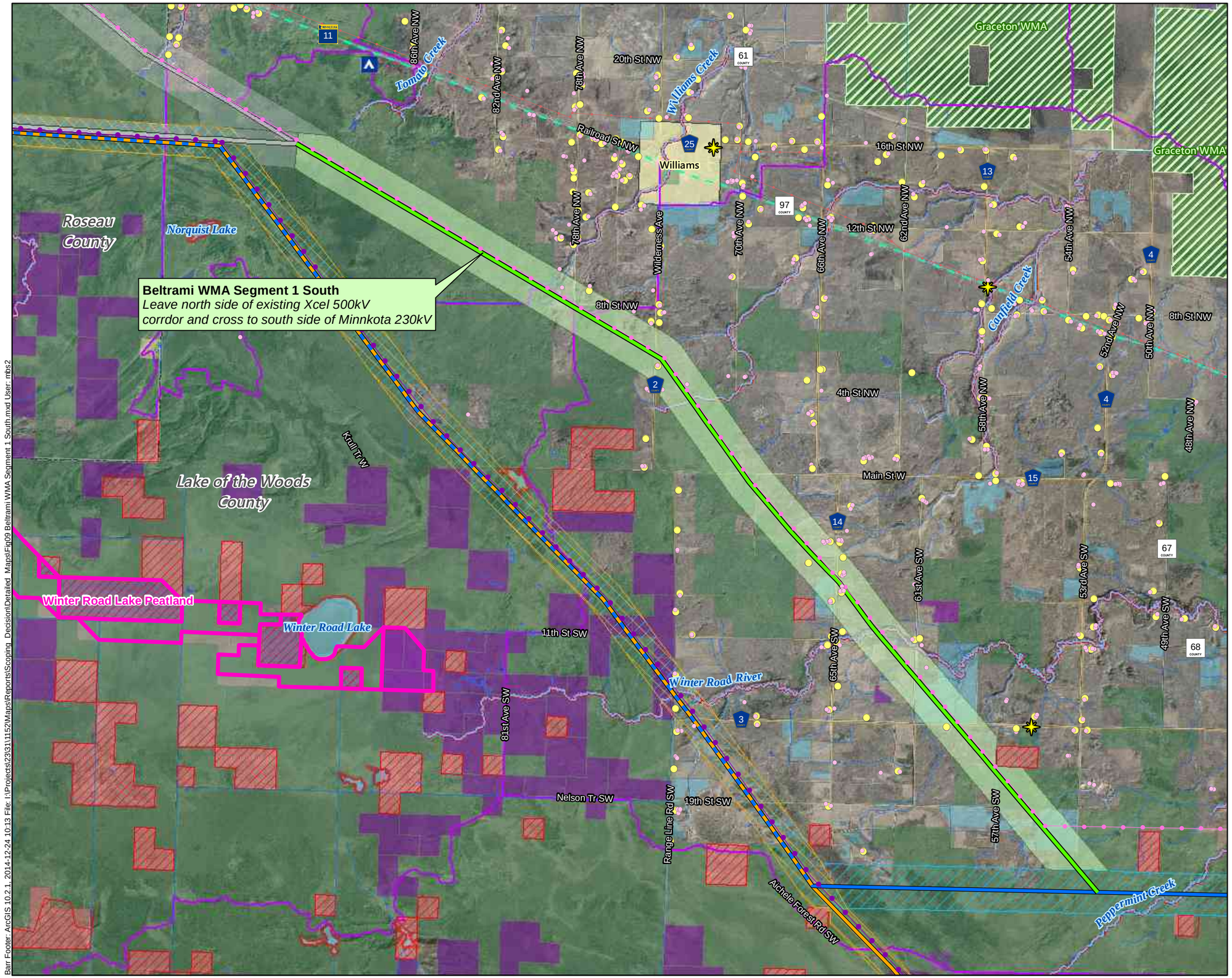
Proposed Routes
Proposed Blue/Orange Shared Route
Proposed Blue Route
Proposed Orange Route

Feet
7,000 0 7,000

Figure 8
(Overview Ref. D-2)
BELTRAMI WMA SEGMENT 1 NORTH
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 10:05 File: \\Projects\23\31\11152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig08 Beltrami WMA Segment 1 North.mxd User: mbs2



Residence
Non-Residential Structure
Cemetery
PWI Watercourse
PWI Waterbody
Scientific and Natural Area
Wildlife Management Area

Non-Private Land Ownership (Assumed)
County Land
Federal Land
Corporate Land
State Land
Tribal Land
USFWS Interest Lands
Indian Reservation

Existing Transmission Lines
69 or 115 kV
230 kV
500 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

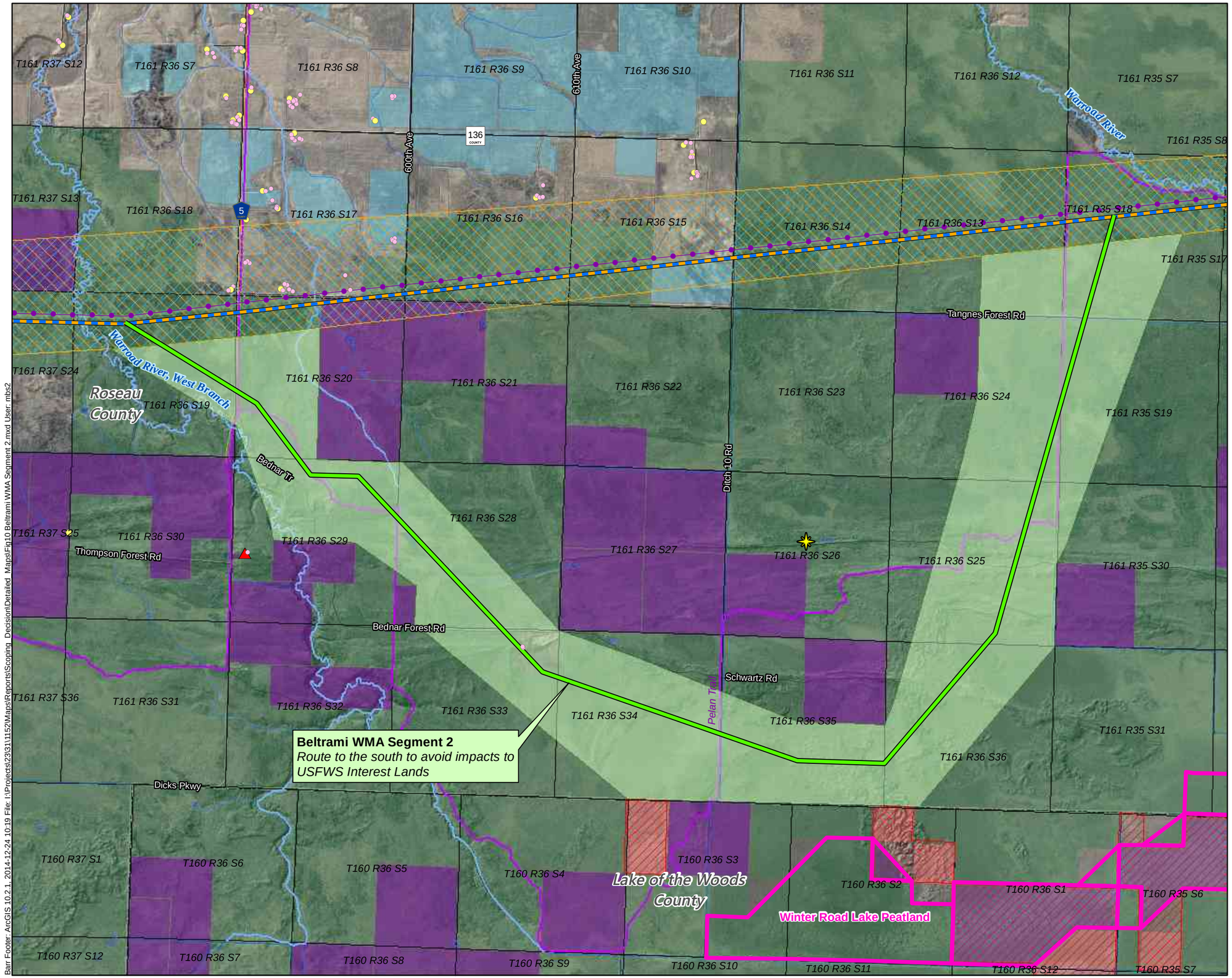
Proposed Routes
Proposed Blue Route
Proposed Orange Route
Proposed Blue/Orange Shared Route
Proposed Blue Route
Proposed Orange Route

Feet
6,000 0 6,000

Figure 9
(Overview Ref. E-3)
BELTRAMI WMA SEGMENT 1 SOUTH
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 10:13 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig09 Beltrami WMA Segment 1 South.mxd User: mbs2



Residence
Non-Residential Structure
Fire Tower
Cemetery
PWI Watercourse
Scientific and Natural Area

Non-Private Land Ownership (Assumed)
Federal Land
Corporate Land
State Land
Tribal Land
USFWS Interest Lands
Indian Reservation

Existing Transmission Lines
500 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

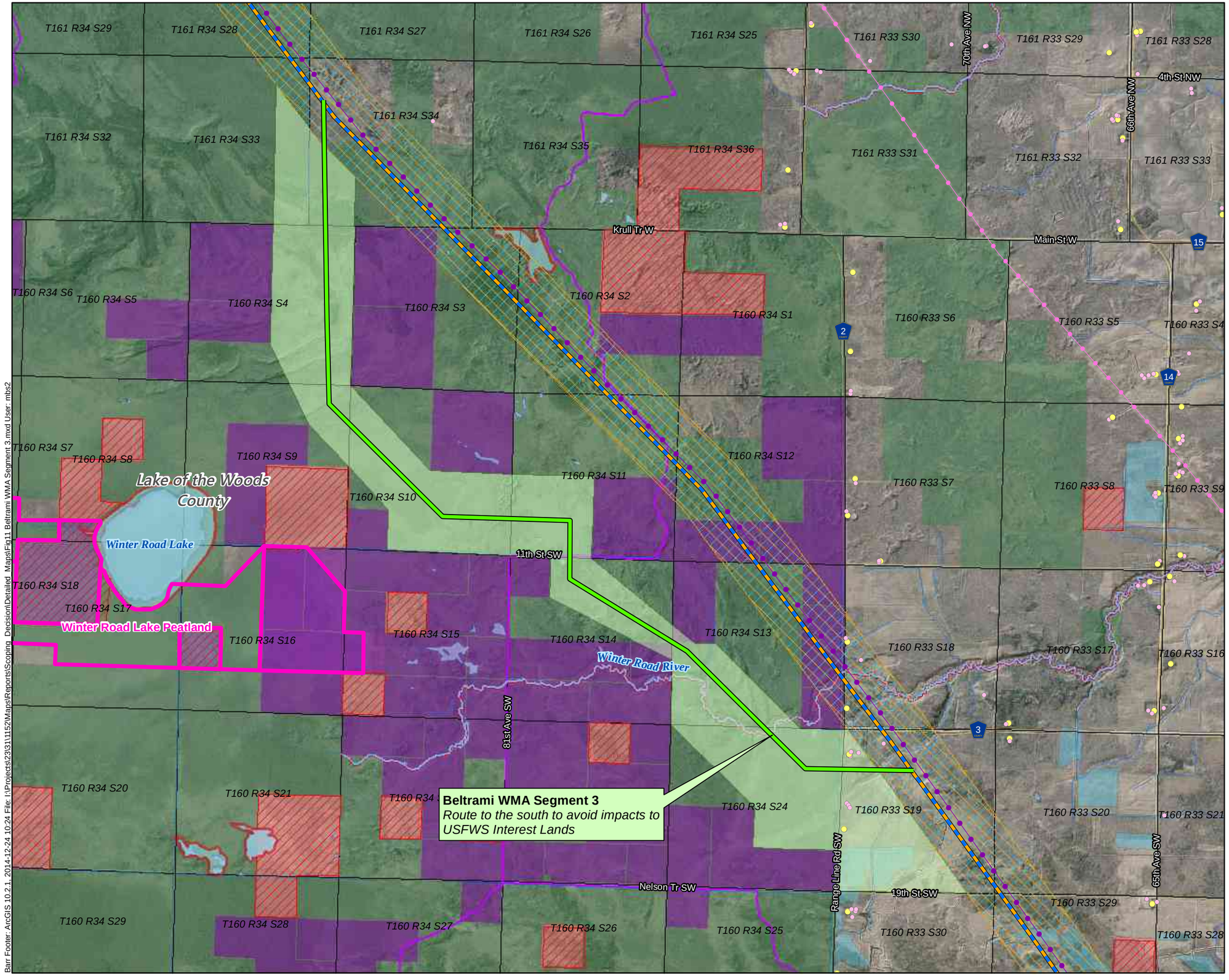
Proposed Routes
Proposed Blue/Orange Shared Route
Proposed Blue Route
Proposed Orange Route

Feet
3,000 0 3,000

Figure 10
(Overview Ref. D-2)
BELTRAMI WMA SEGMENT 2
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 10:19 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig10 Beltrami WMA Segment 2.mxd User: mbs2



Residence
Non-Residential Structure
PWI Watercourse
PWI Waterbody
Scientific and Natural Area

Non-Private Land Ownership (Assumed)
- Federal Land
- Corporate Land
- State Land
- Tribal Land
- USFWS Interest Lands
- Indian Reservation

Existing Transmission Lines
- 230 kV
- 500 kV

Scoping Process
- Alternative Route Segment Alignment
- Alternative Route Segment

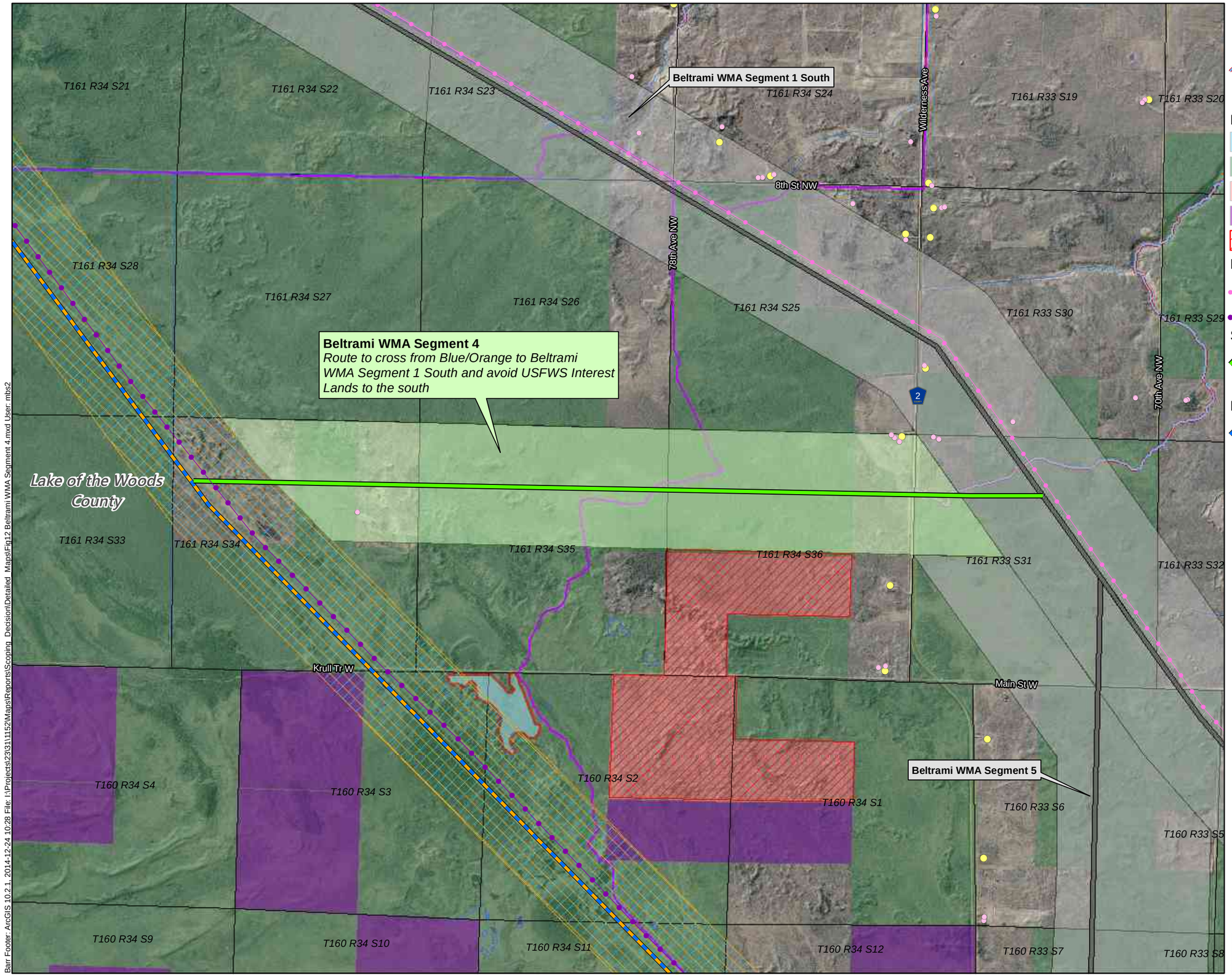
Proposed Routes
- Proposed Blue/Orange Shared Route
- Proposed Blue Route
- Proposed Orange Route

Feet
3,000 0 3,000

Figure 11
(Overview Ref. E-3)
BELTRAMI WMA SEGMENT 3
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 10:24 File: I:\Projects\23\31\11152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig11 Beltrami WMA Segment 3.mxd User: mbs2



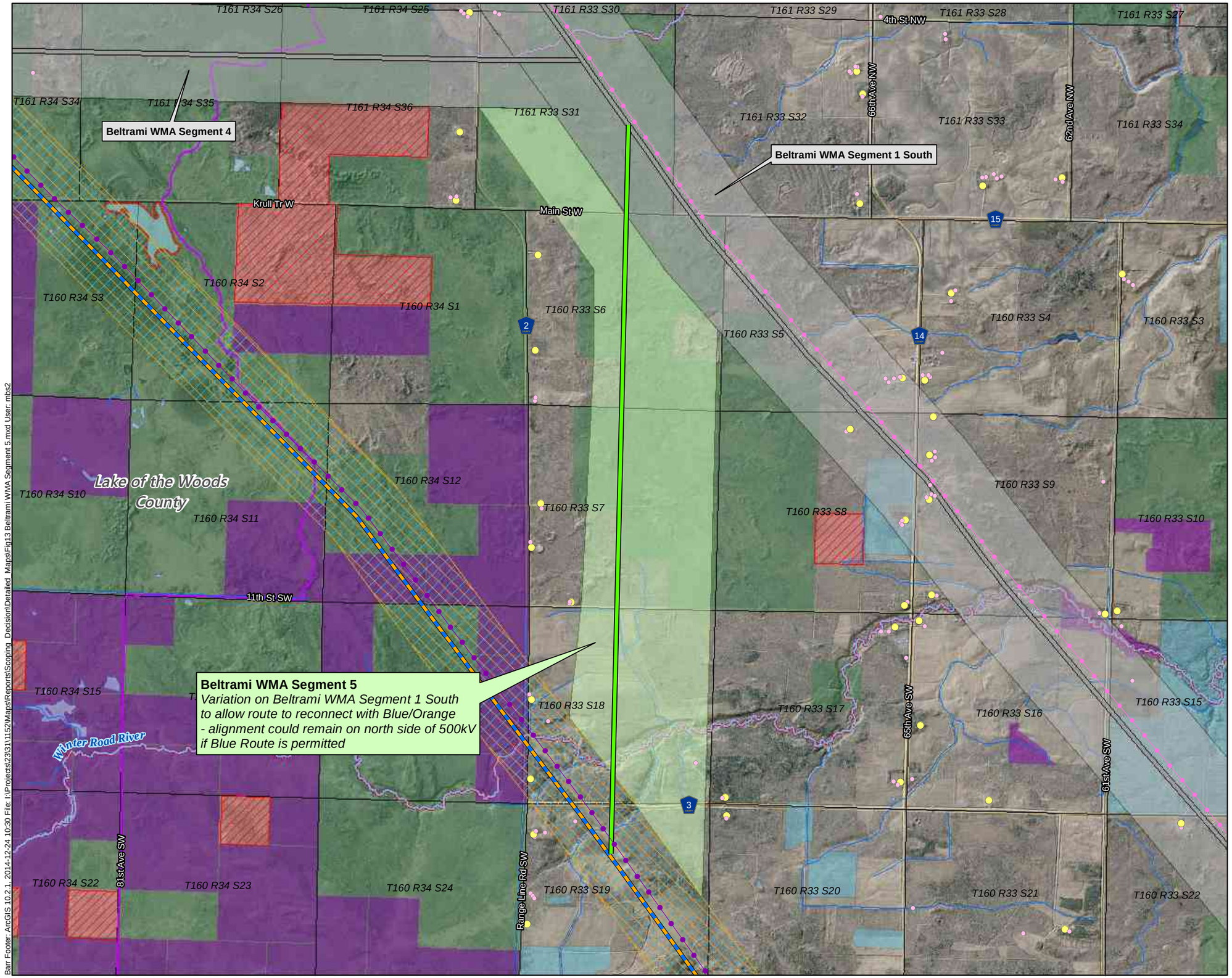
Residence
Non-Residential Structure
PWI Watercourse
PWI Waterbody
Non-Private Land Ownership (Assumed)
Corporate Land
State Land
Tribal Land
USFWS Interest Lands
Indian Reservation
Existing Transmission Lines
230 kV
500 kV
Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment
Proposed Routes
Proposed Blue/Orange Shared Route
Proposed Blue Route
Proposed Orange Route

Feet
2,000 0 2,000

Figure 12
(Overview Ref. E-3)
BELTRAMI WMA SEGMENT 4
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 10:28 File: I:\Projects\23\31\11152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig12 Beltrami WMA Segment 4.mxd User: mbs2



Residence
Non-Residential Structure
PWI Watercourse
PWI Waterbody

Non-Private Land Ownership (Assumed)
Corporate Land
State Land
Tribal Land
USFWS Interest Lands
Indian Reservation

Existing Transmission Lines
230 kV
500 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

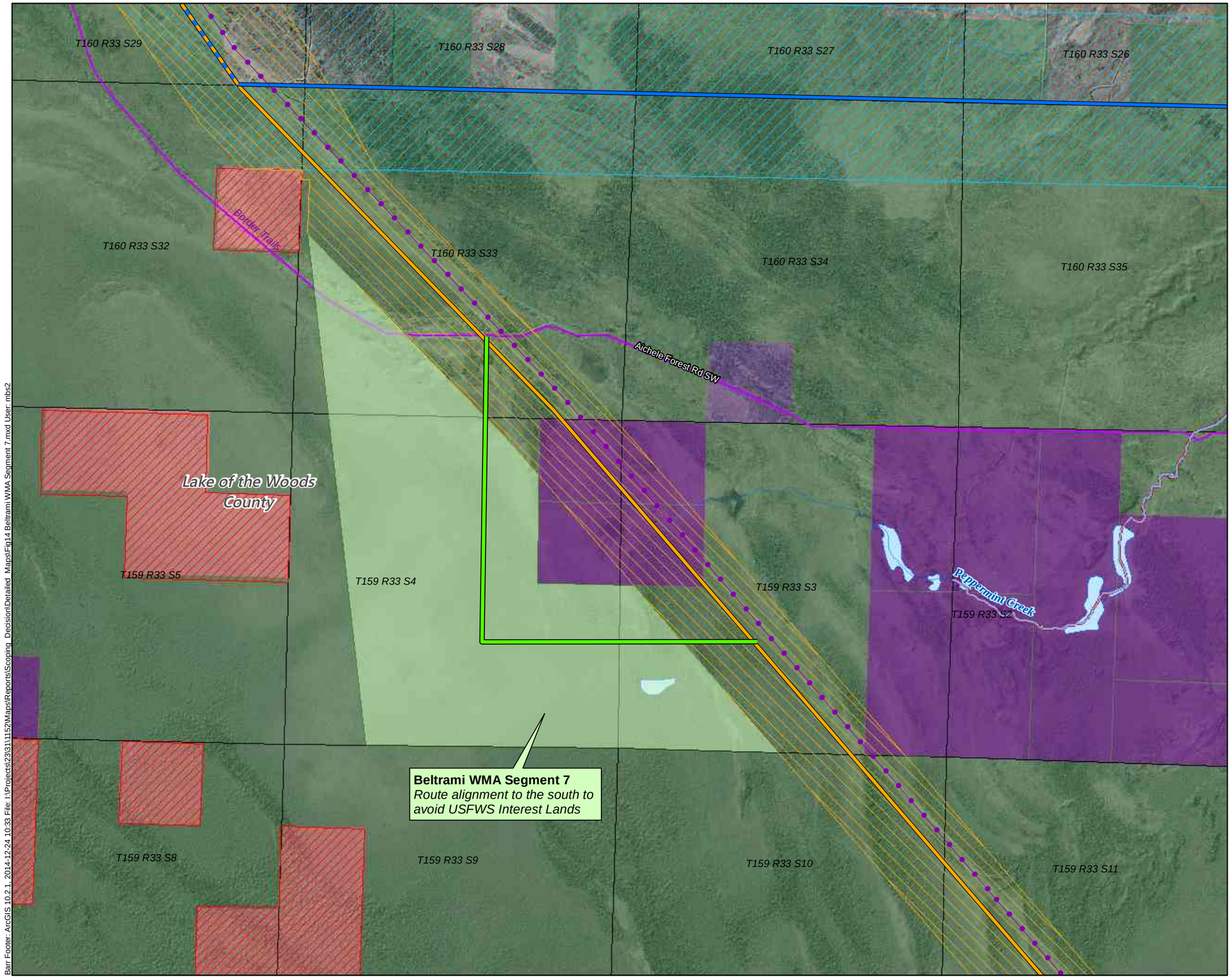
Proposed Routes
Proposed Blue/Orange Shared Route
Proposed Blue Route
Proposed Orange Route

Feet
2,500 0 2,500

Figure 13
(Overview Ref. E-3)
BELTRAMI WMA SEGMENT 5
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 10:30 File: I:\Projects\23\31\11152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig13 Beltrami WMA Segment 5.mxd User: mbs2



PWI Watercourse

Non-Private Land Ownership (Assumed)

- Federal Land
- State Land
- Tribal Land
- USFWS Interest Lands
- Indian Reservation

Existing Transmission Lines

- 500 kV

Scoping Process

- Alternative Route Segment Alignment
- Alternative Route Segment

Proposed Routes

- Proposed Blue Route
- Proposed Orange Route
- Proposed Blue/Orange Shared Route
- Proposed Blue Route
- Proposed Orange Route

Feet

1,500 0 1,500

Figure 14

(Overview Ref. E-3)

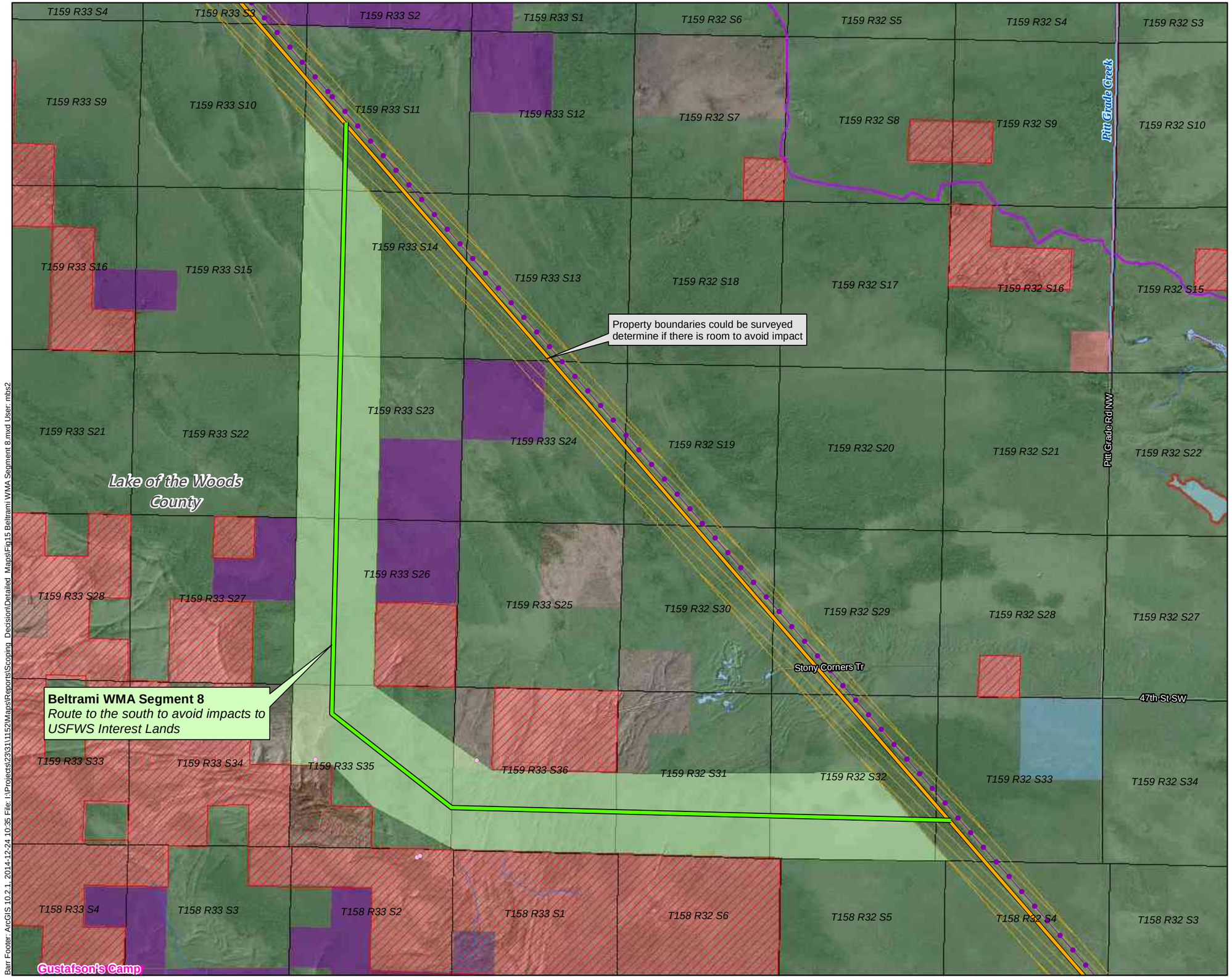
BELTRAMI WMA SEGMENT 7

Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY

MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 10:33 File: I:\Projects\23\31\152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig14 Beltrami WMA Segment 7.mxd User: mbs2



Non-Residential Structure
PWI Watercourse
PWI Waterbody
Scientific and Natural Area

Non-Private Land Ownership (Assumed)
- Federal Land
- Corporate Land
- State Land
- Tribal Land
- USFWS Interest Lands
- Indian Reservation

Existing Transmission Lines
- 500 kV

Scoping Process
- Alternative Route Segment Alignment
- Alternative Route Segment

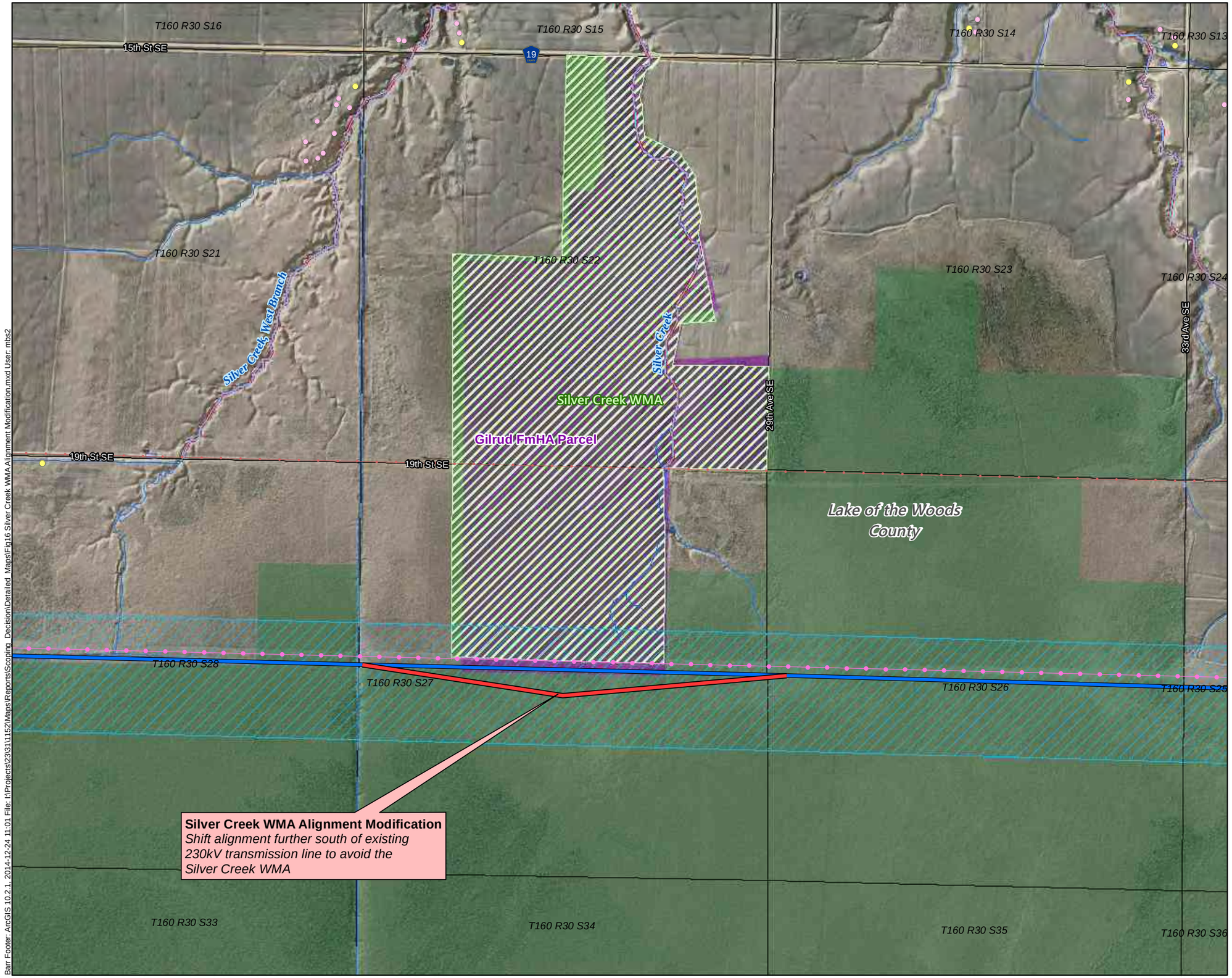
Proposed Routes
- Proposed Orange Route
- Proposed Orange Route

Feet
3,000 0 3,000

Figure 15
(Overview Ref. E-3)
BELTRAMI WMA SEGMENT 8
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 10:35 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig15 Beltrami WMA Segment 8.mxd User: mbs2



Residence
Non-Residential Structure
PWI Watercourse
Wildlife Management Area
Non-Private Land Ownership (Assumed)
State Land
USFWS Interest Lands
Existing Transmission Lines
69 or 115 kV
230 kV
Scoping Process
Alignment Modification
Proposed Routes
Proposed Blue Route
Proposed Blue Route

Feet
1,200 0 1,200

Figure 16

(Overview Ref. F-3)

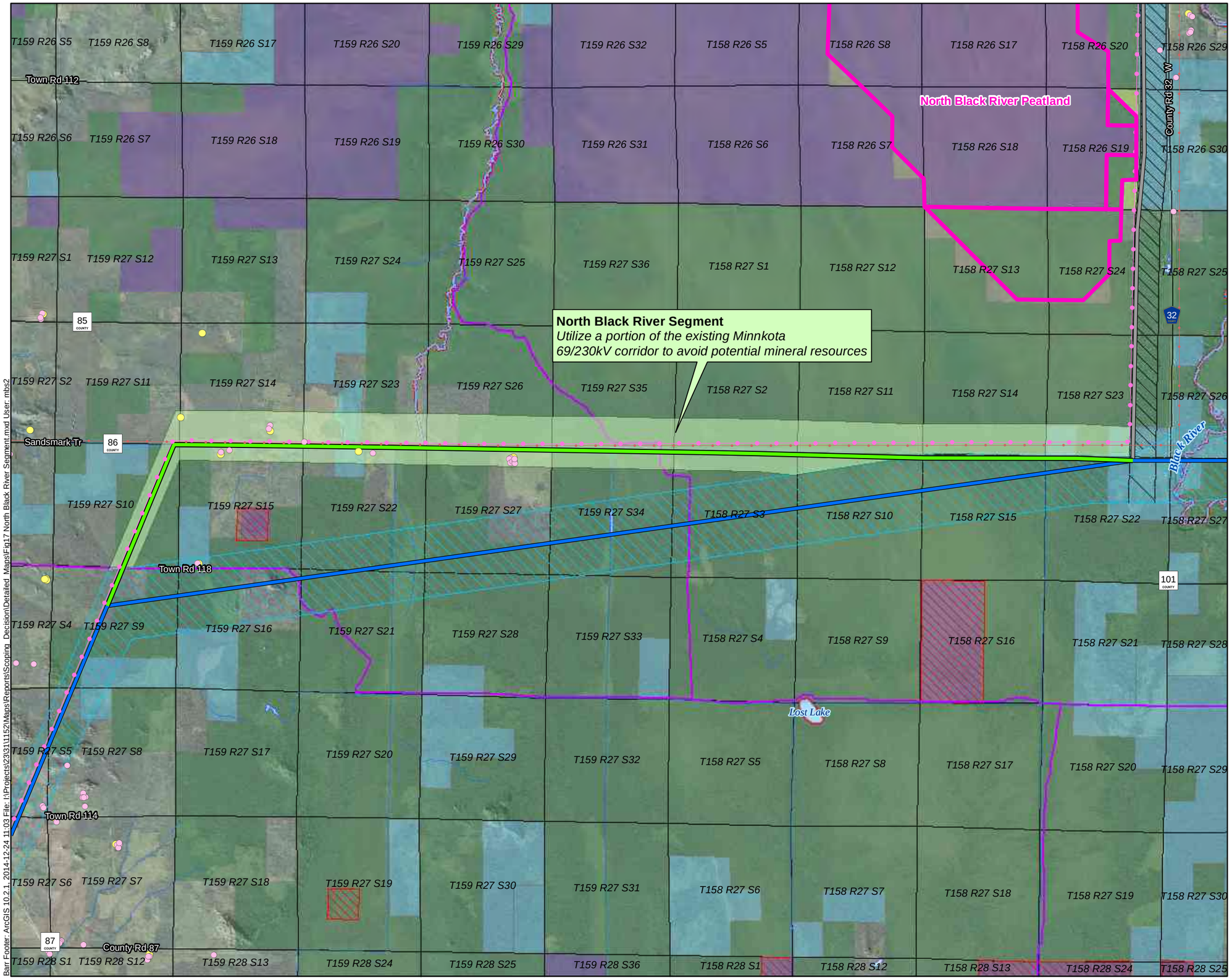
SILVER CREEK WMA ALIGNMENT MODIFICATION

Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY

MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:01 File: I:\Projects\23\3111152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig16 Silver Creek WMA Alignment Modification.mxd User: mbs2



Residence
Non-Residential Structure
Snowmobile Trail
PWI Watercourse
PWI Waterbody
Scientific and Natural Area

Non-Private Land Ownership (Assumed)
County Land
Federal Land
Corporate Land
State Land

Existing Transmission Lines
69 or 115 kV
230 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

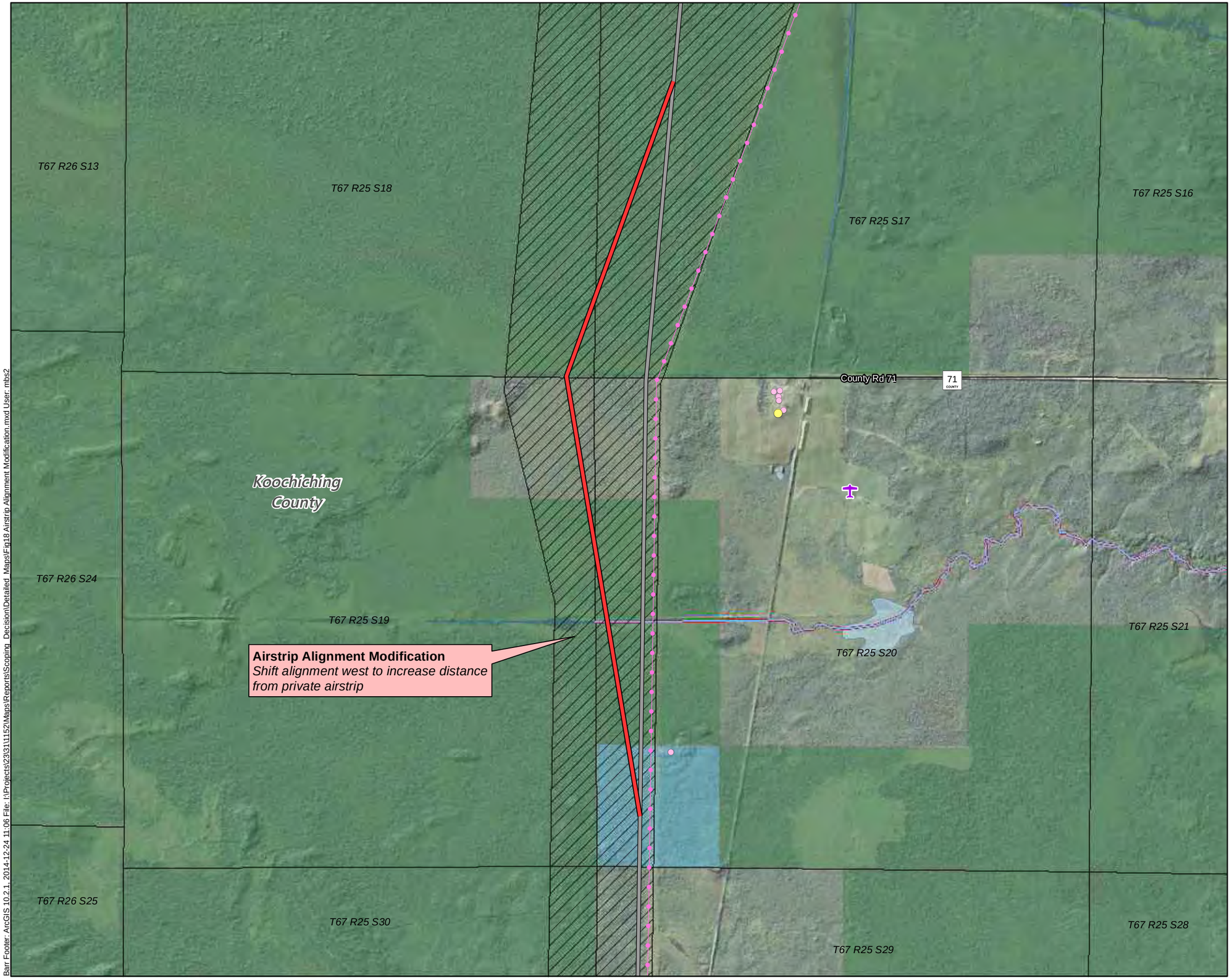
Proposed Routes
Proposed Blue Route
Proposed Alternative Route
Proposed Blue Route
Proposed Alternative Route

Feet
4,000 0 4,000

Figure 17
(Overview Ref. G-3)
NORTH BLACK RIVER SEGMENT
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:03 File: I:\Projects\23\31\152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig17 North Black River Segment.mxd User: mbs2



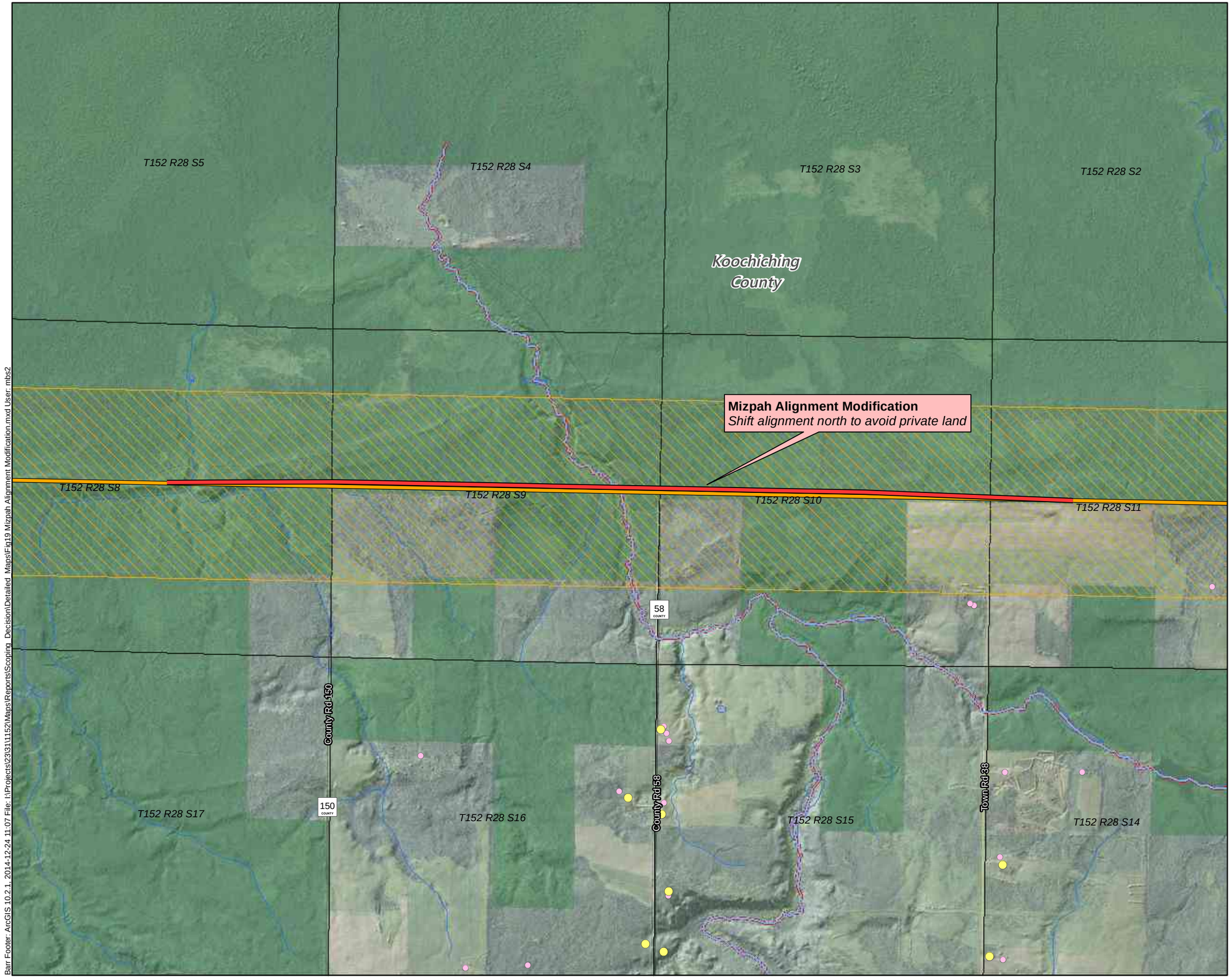
Residence
Non-Residential Structure
Airstrip
PWI Watercourse
Non-Private Land Ownership (Assumed)
Corporate Land
State Land
Existing Transmission Lines
230 kV
Scoping Process
Alignment Modification
Proposed Routes
Proposed Alternative Route
Proposed Alternative Route

Feet
1,000 0 1,000

Figure 18
(Overview Ref. H-5)
AIRSTRIP ALIGNMENT MODIFICATION
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:06 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig18 Airstrip Alignment Modification.mxd User: mbs2



Residence

Non-Residential Structure

PWI Watercourse

Non-Private Land Ownership (Assumed)

State Land

Scoping Process

Alignment Modification

Proposed Routes

Proposed Orange Route

Proposed Orange Route

Feet

1,500 0 1,500

Figure 19

(Overview Ref. F-6)

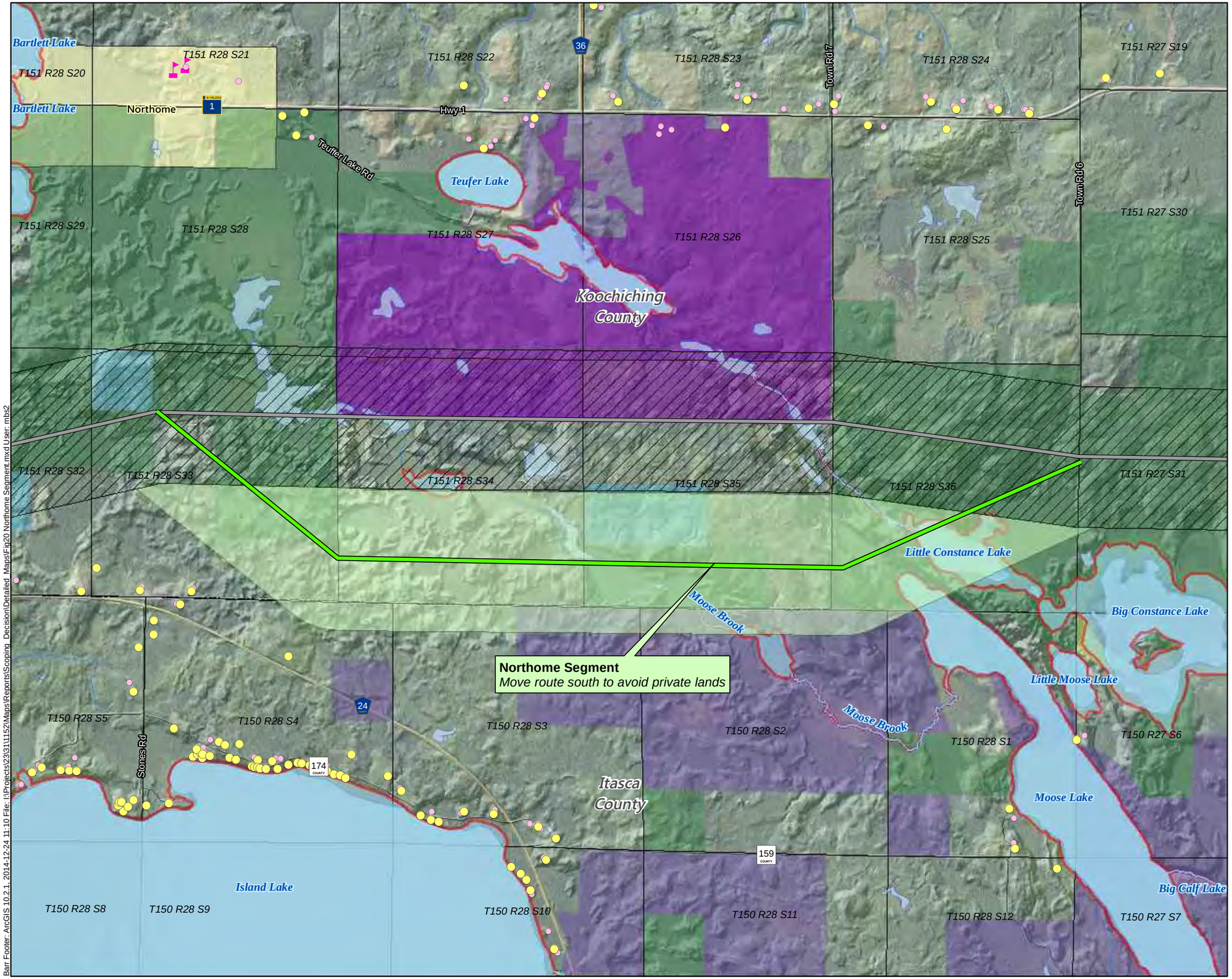
MIZPAH ALIGNMENT MODIFICATION

Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY

MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:07 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig19 Mizpah Alignment Modification.mxd User: mbs2



Residence
Non-Residential Structure
School
PWI Watercourse
PWI Waterbody
Aquatic Management Area

Non-Private Land Ownership (Assumed)
County Land
Federal Land
Corporate Land
State Land
USFWS Interest Lands

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

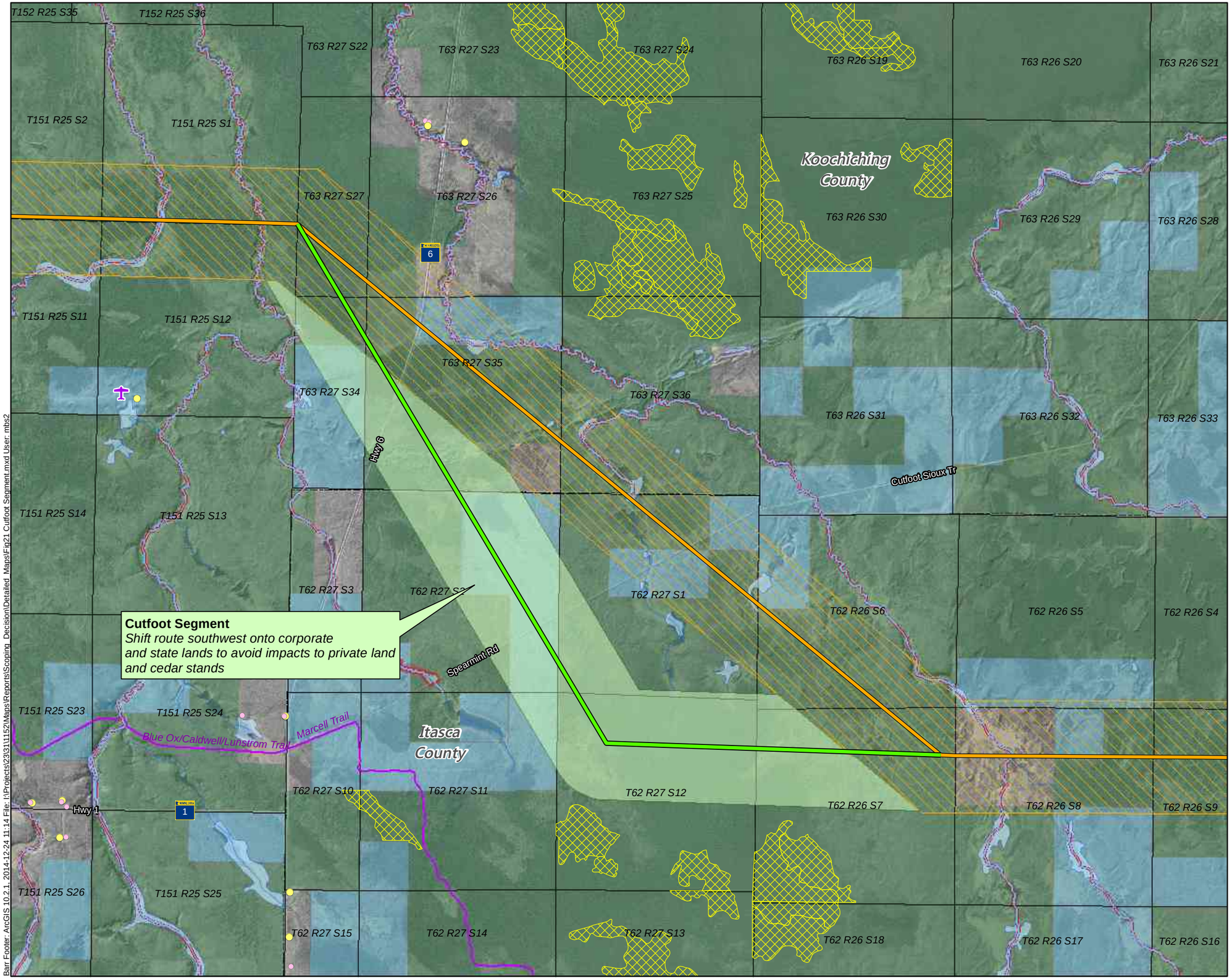
Proposed Routes
Proposed Alternative Route
Proposed Alternative Route

Feet
2,000 0 2,000

Figure 20
(Overview Ref. F-7)
NORTHOME SEGMENT
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:10 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig20 Northome Segment.mxd User: mbs2



Residence
Non-Residential Structure
Airstrip
Snowmobile Trail
PWI Watercourse
PWI Waterbody
Ecologically Important Lowland Conifers

Non-Private Land Ownership (Assumed)
Corporate Land
State Land

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

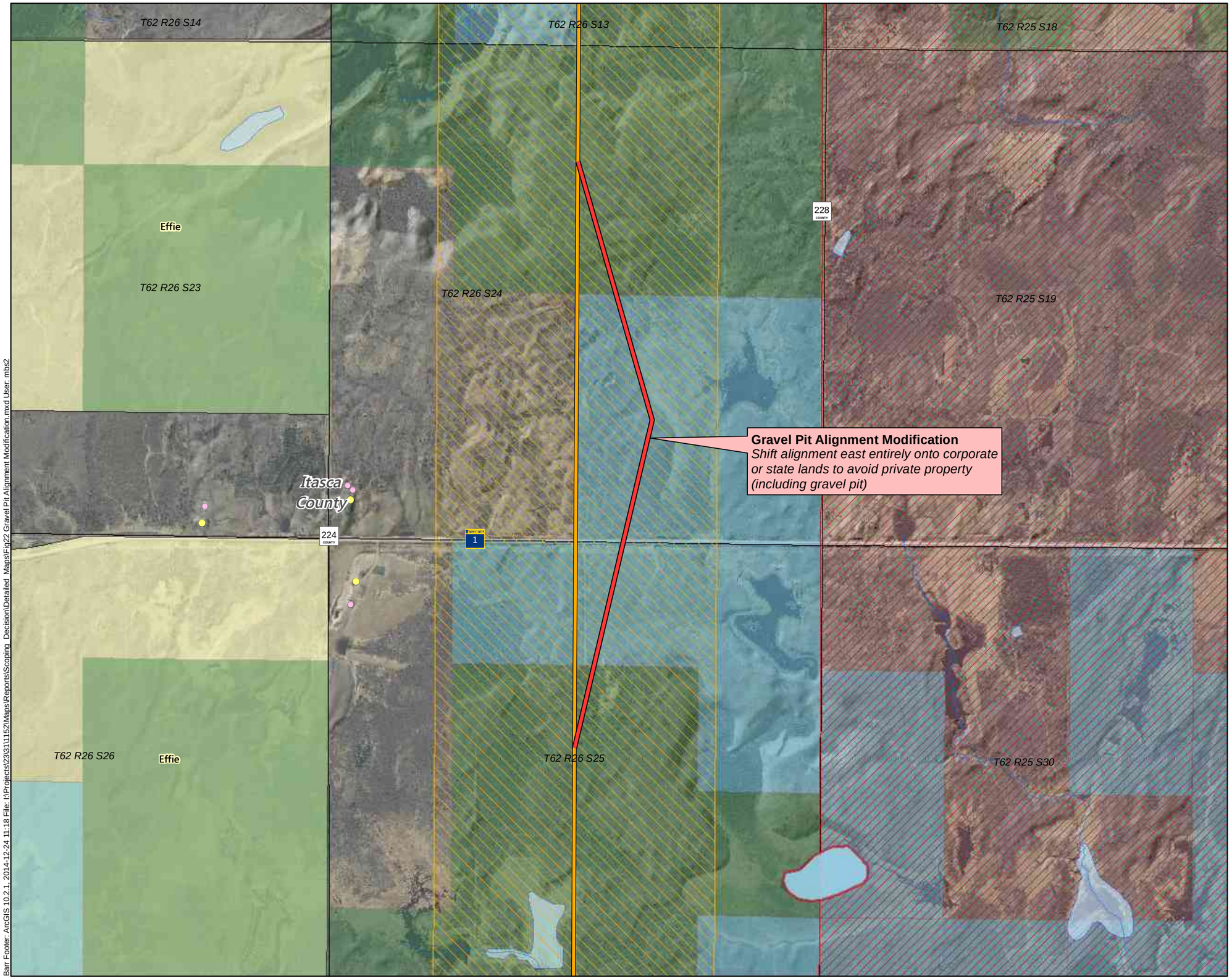
Proposed Routes
Proposed Orange Route
Proposed Orange Route

Feet
2,500 0 2,500

Figure 21
(Overview Ref. H-7)
CUTFOOT SEGMENT
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:14 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig21 Cutfoot Segment.mxd User: mbs2



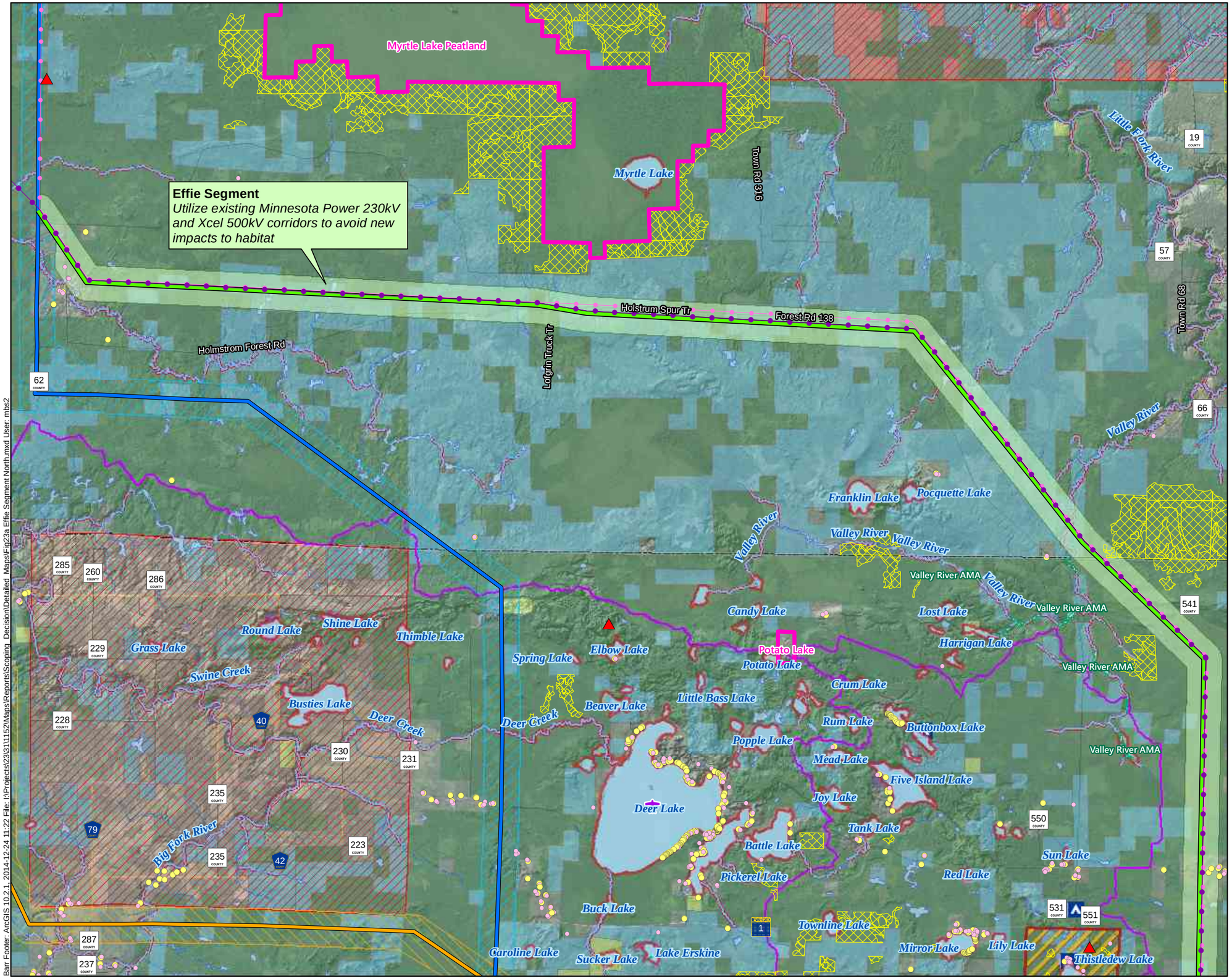
Residence
Non-Residential Structure
PWI Waterbody
Non-Private Land Ownership (Assumed)
Corporate Land
State Land
Indian Reservation
Municipal Boundary
Scoping Process
Alignment Modification
Proposed Routes
Proposed Orange Route
Proposed Orange Route

Feet
1,000 0 1,000

Figure 22
(Overview Ref. H-7)
GRAVEL PIT ALIGNMENT MODIFICATION
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:18 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig22 Gravel Pit Alignment Modification.mxd User: mbs2



Residence
Non-Residential Structure
State Forest Campground
Fire Tower
Snowmobile Trail
PWI Watercourse
PWI Waterbody
Ecologically Important Lowland Conifers
Aquatic Management Area
Scientific and Natural Area
State Game Refuge

Land Ownership (Assumed)
County Land
Federal Land
Corporate Land
State Land
Tribal Land
Indian Reservation

Existing Transmission Lines
230 kV
500 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

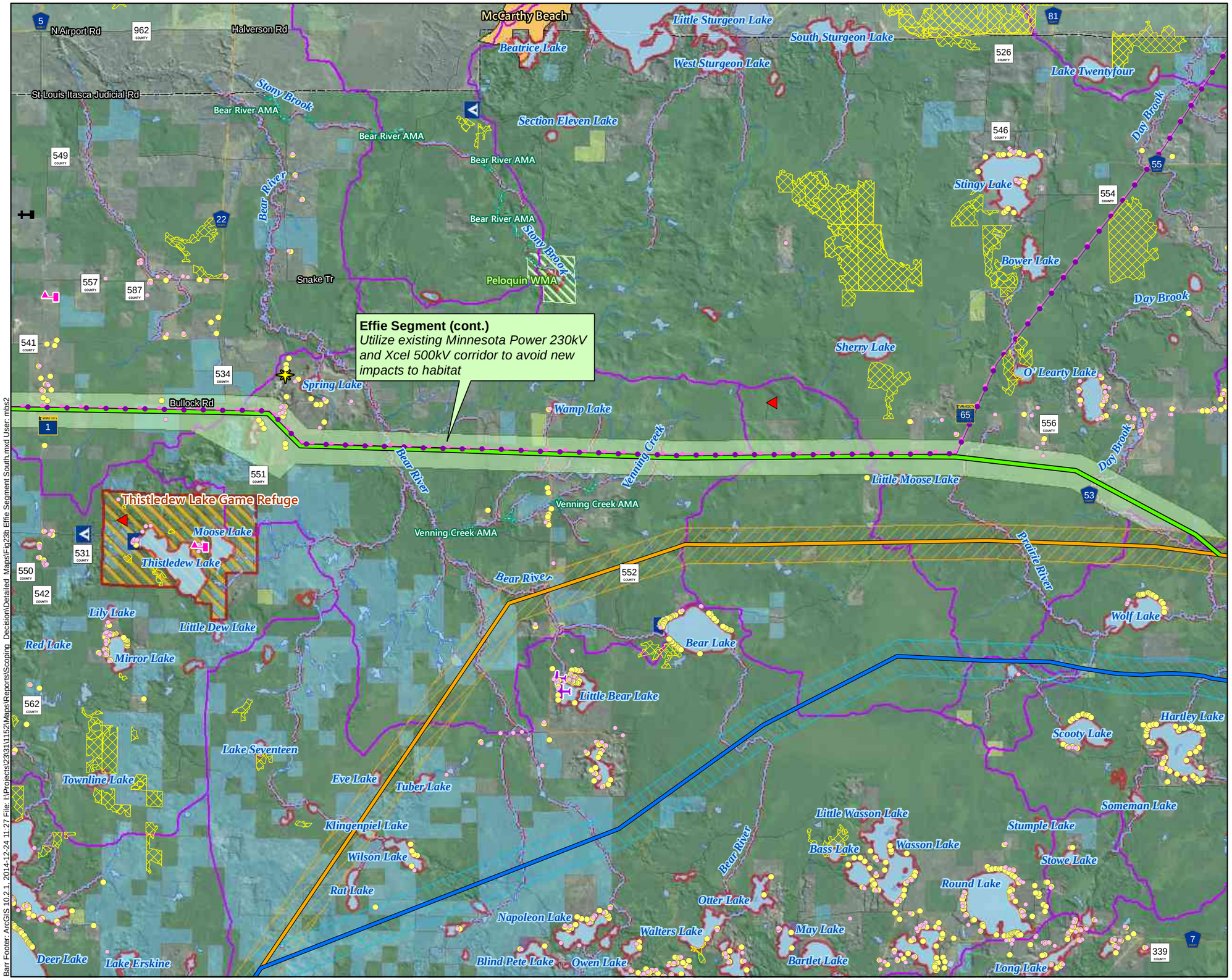
Proposed Routes
Proposed Blue Route
Proposed Orange Route
Proposed Blue Route
Proposed Orange Route

Miles
1.5 0 1.5

Figure 23a
(Overview Ref. H-7)
EFFIE SEGMENT (NORTH)
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:22 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig23a Effie Segment North.mxd User: mbs2



Residence
Non-Residential Structure
School
Church
Fire Tower
State Forest Campground
Snowmobile Trail
PWI Watercourse
PWI Waterbody
Ecologically Important Lowland Conifers
Aquatic Management Area
State Game Refuge
Wildlife Management Area

Land Ownership (Assumed)
County Land
Federal Land
Other Public Land
Corporate Land
State Land

Existing Transmission Lines
230 kV
500 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

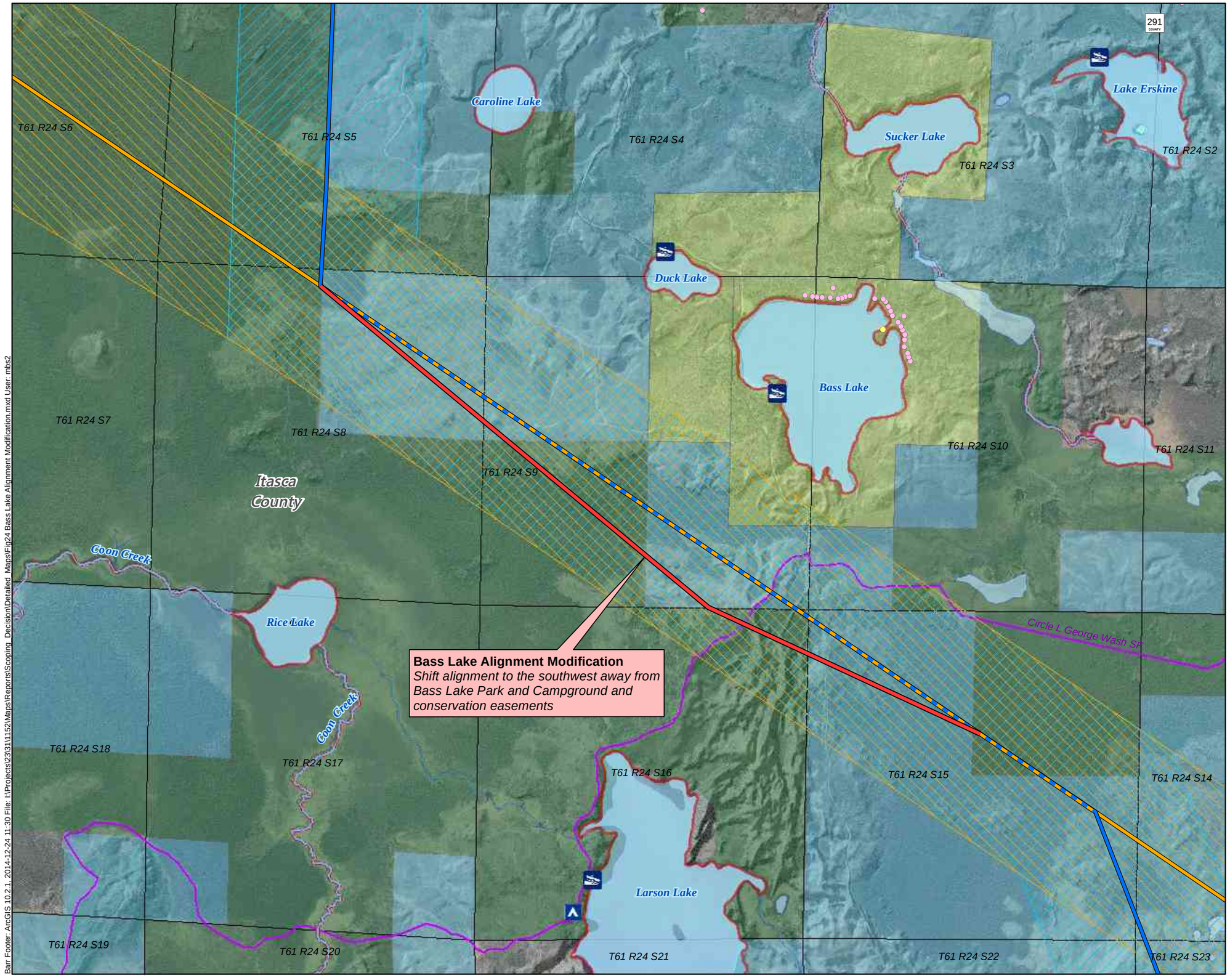
Proposed Routes
Proposed Blue Route
Proposed Orange Route
Proposed Blue Route
Proposed Orange Route

Miles
1.5 0 1.5

Figure 23b
(Overview Ref. I-8)
EFFIE SEGMENT (SOUTH)
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:27 File: I:\Projects\23\31\11152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig23b Effie Segment South.mxd User: mbs2



Residence
Non-Residential Structure
State Forest Campground
Water Access Point
Snowmobile Trail
PWI Watercourse
PWI Waterbody
Aquatic Management Area

Non-Private Land Ownership (Assumed)
County Land
Federal Land
Corporate Land
State Land

Scoping Process
Alignment Modification

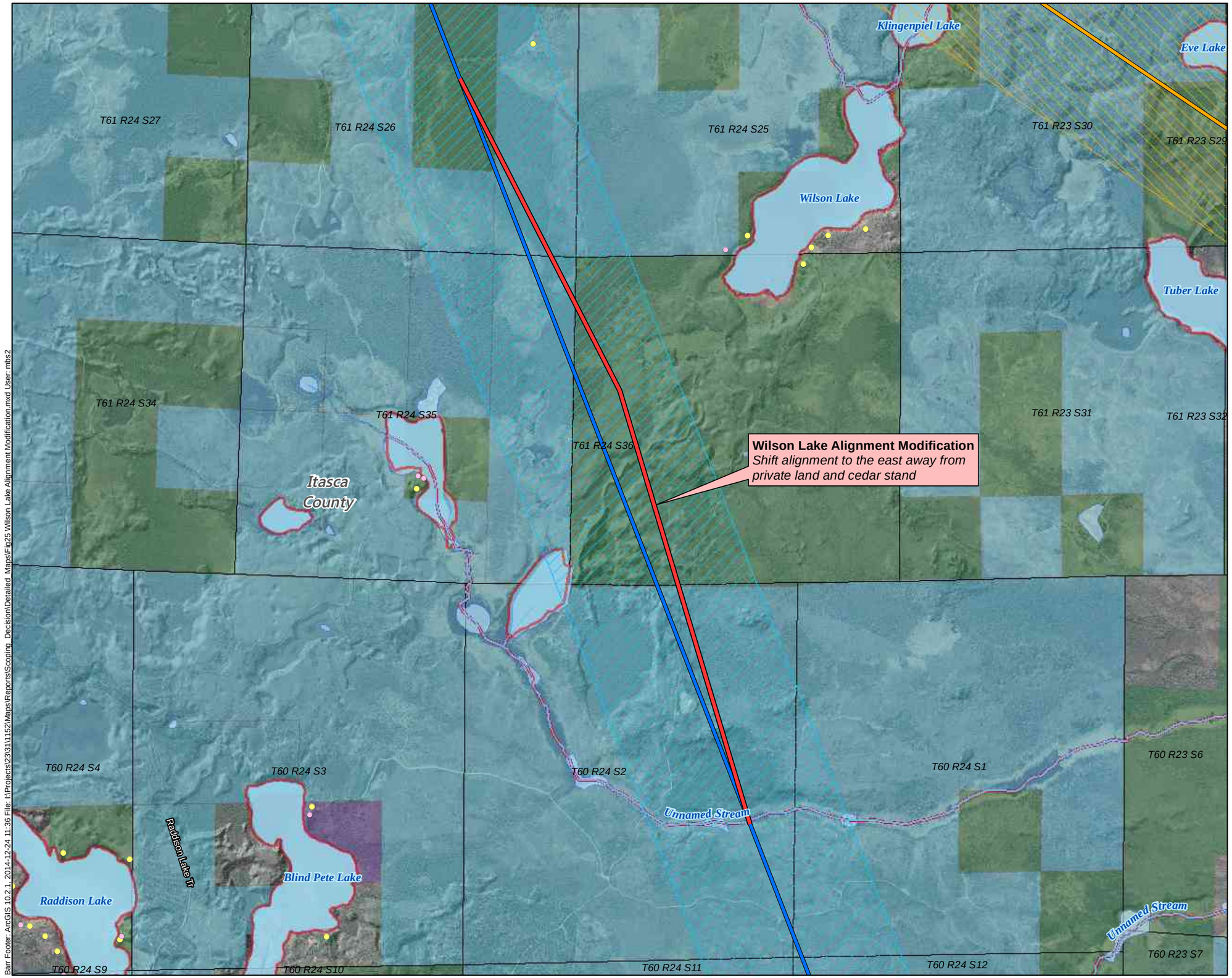
Proposed Routes
Proposed Blue Route
Proposed Orange Route
Proposed Blue/Orange Shared Route
Proposed Blue Route
Proposed Orange Route

Feet
1,500 0 1,500

Figure 24
(Overview Ref. H-7)
BASS LAKE ALIGNMENT MODIFICATION
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:30 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig24 Bass Lake Alignment Modification.mxd User: mbs2



Residence
Non-Residential Structure
PWI Watercourse
PWI Waterbody

Non-Private Land Ownership (Assumed)
Federal Land
Corporate Land
State Land

Scoping Process
Alignment Modification

Proposed Routes
Proposed Blue Route
Proposed Orange Route
Proposed Blue Route
Proposed Orange Route

Feet
1,500 0 1,500

Figure 25

(Overview Ref. H-7)

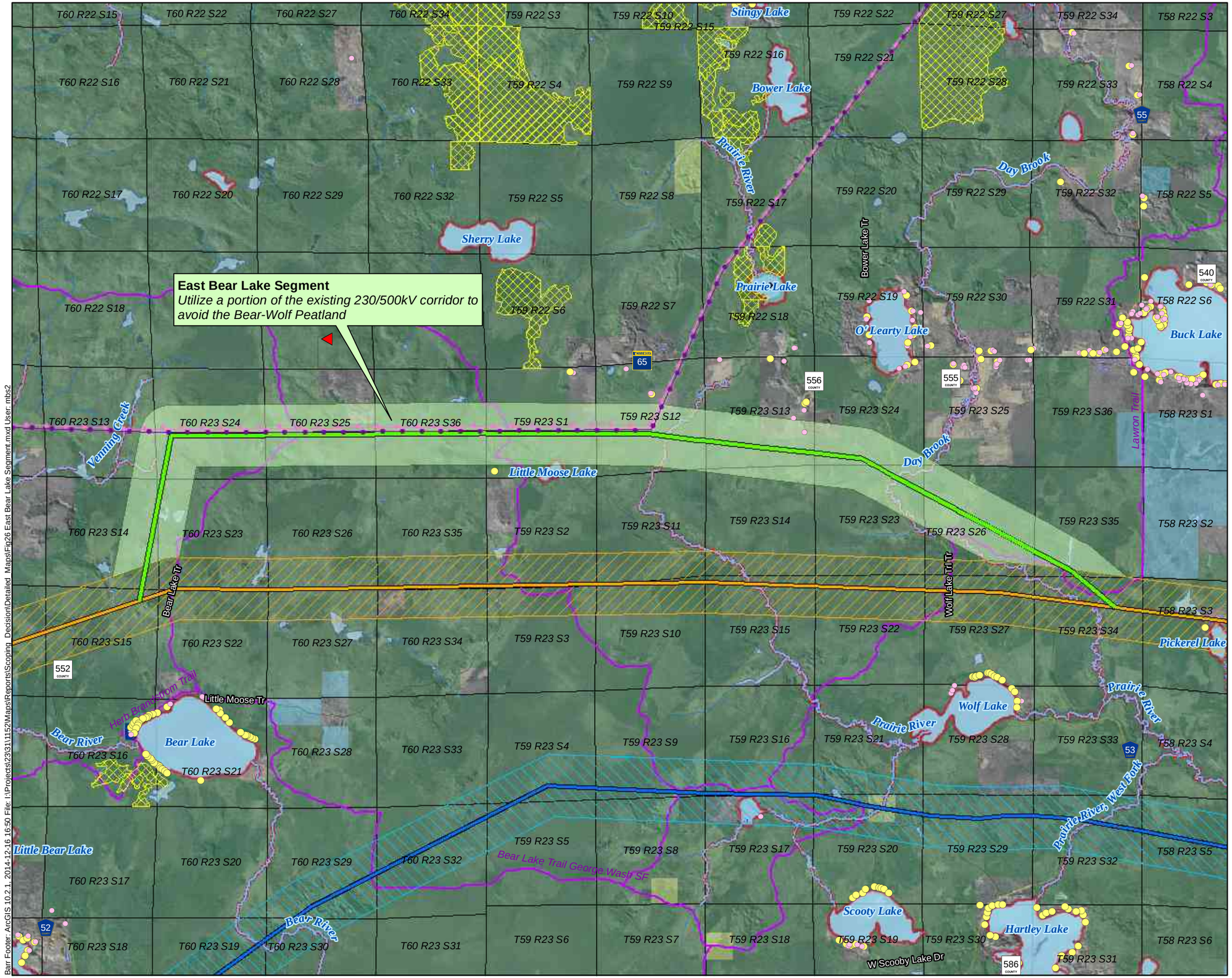
WILSON LAKE ALIGNMENT MODIFICATION

Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY

MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:36 File: I:\Projects\23\31\11152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig25 Wilson Lake Alignment Modification.mxd User: mbs2



Residence
Non-Residential Structure
Fire Tower
State Forest Campground
Snowmobile Trail
PWI Watercourse
PWI Waterbody
Ecologically Important Lowland Conifers
Aquatic Management Area

Land Ownership (Assumed)
County Land
Other Public Land
Corporate Land
State Land

Existing Transmission Lines
230 kV
500 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

Proposed Routes
Proposed Blue Route
Proposed Orange Route
Proposed Blue Route
Proposed Orange Route

Feet
4,500 0 4,500

Figure 26
(Overview Ref. I-8)
EAST BEAR LAKE SEGMENT
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
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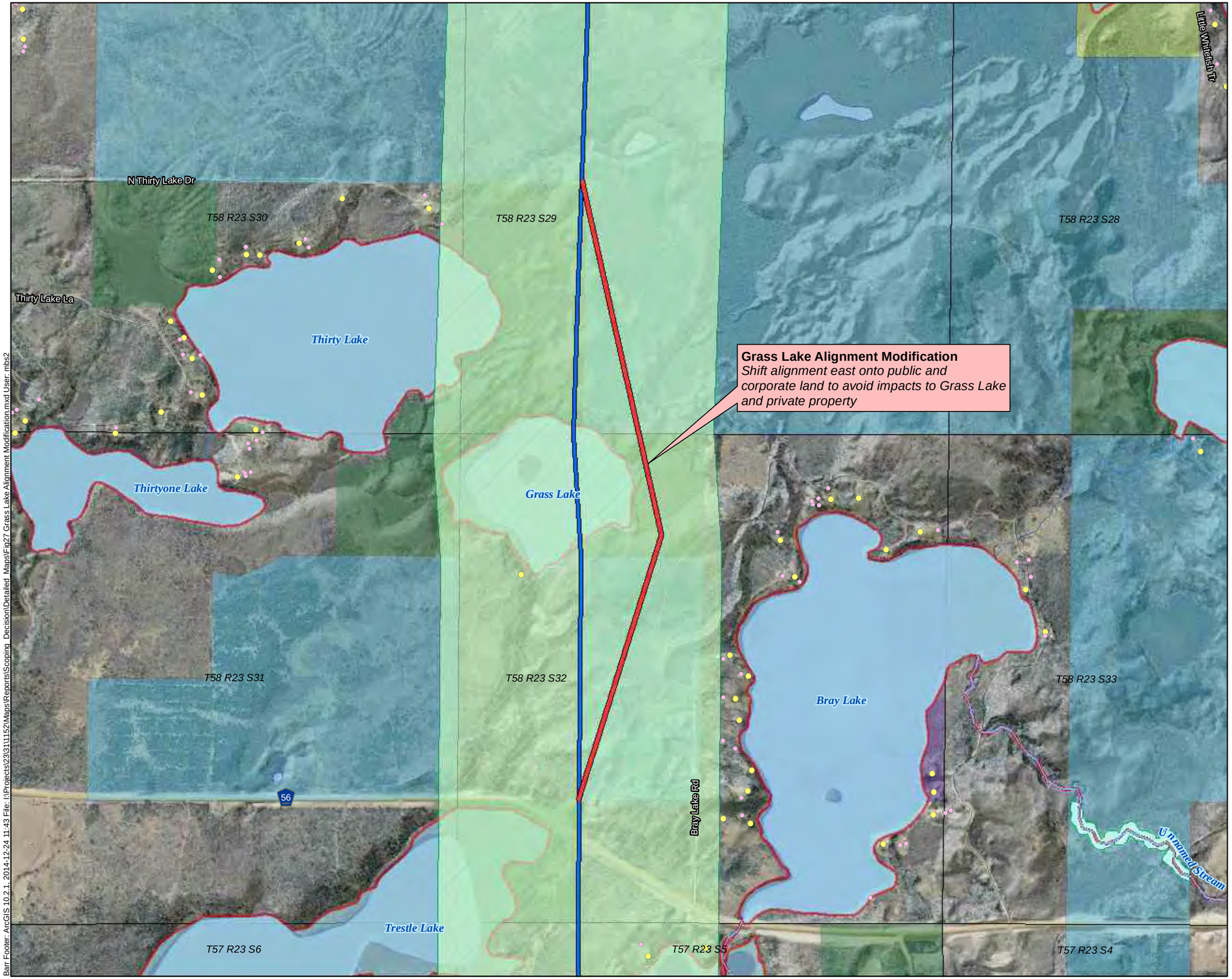
Barr Footer: ArcGIS 10.2.1, 2014-12-16 16:50 File: I:\Projects\23\31\11521\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig26 East Bear Lake Segment.mxd User: mbs2



Residence
Non-Residential Structure
PWI Watercourse
PWI Waterbody
Aquatic Management Area
Public Land Survey Section

Land Ownership (Assumed)
County Land
Federal Land
Corporate Land
State Land

Scoping Process
Alignment Modification
Alternative Route Segment

Proposed Routes
Proposed Blue Route
Blue Route

Feet
1,000 0 1,000

Figure 27

(Overview Ref. I-9)

GRASS LAKE ALIGNMENT MODIFICATION

Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY

MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:43 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig27 Grass Lake Alignment Modification.mxd User: mbs2

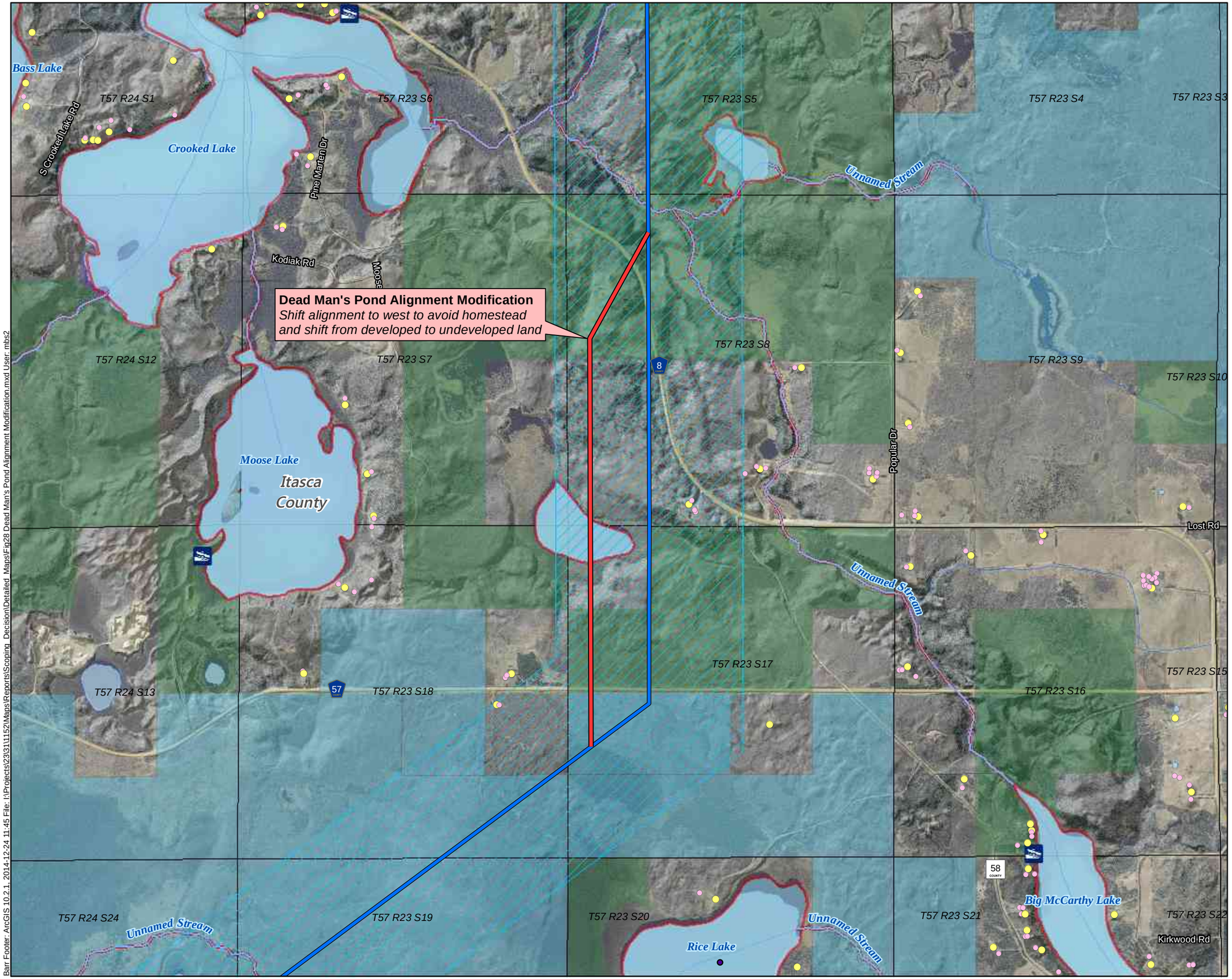


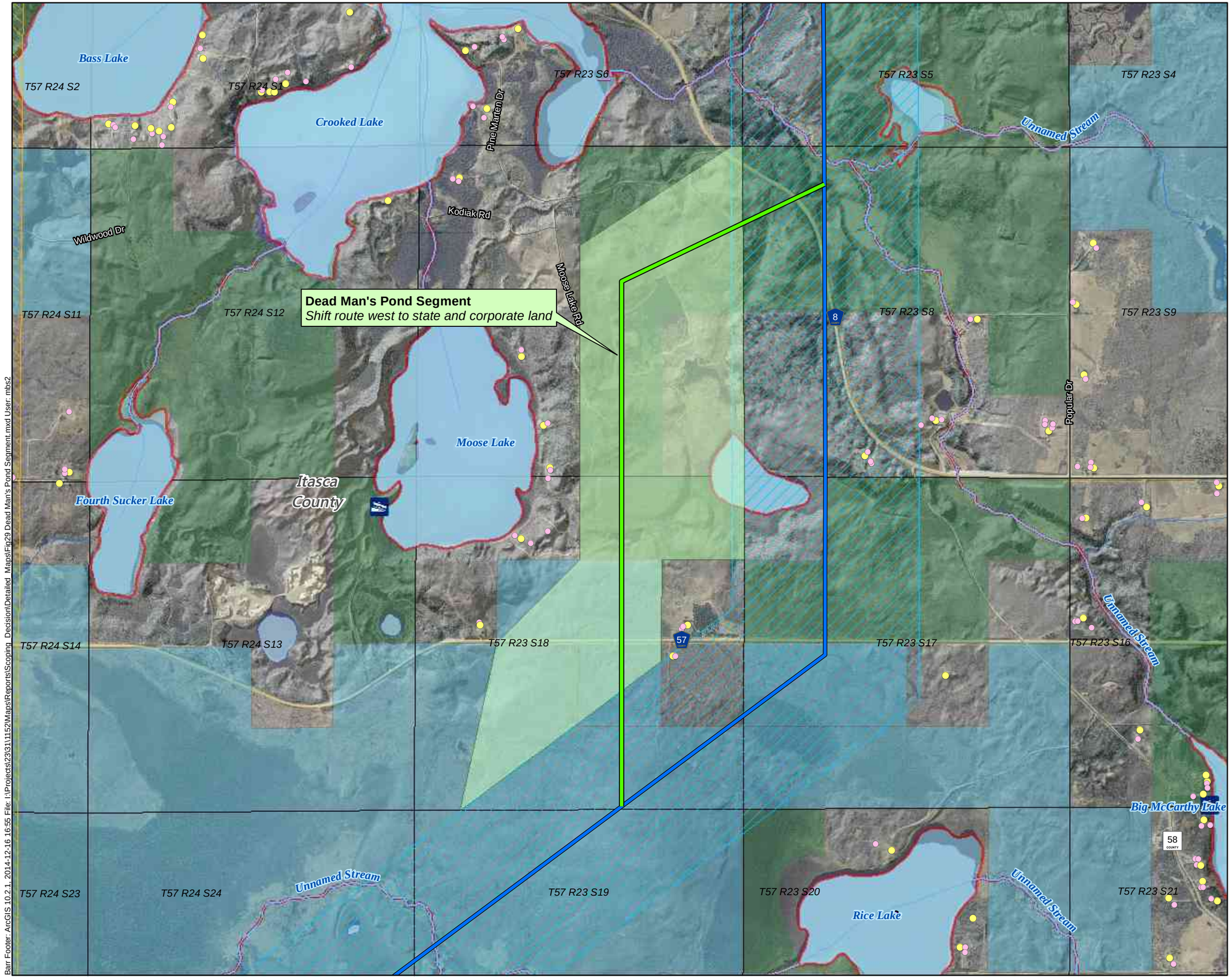
Figure 28

(Overview Ref. I-9)

DEAD MAN'S POND ALIGNMENT MODIFICATION

Great Northern Transmission Line Scoping Decision

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:45 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig28 Dead Man's Pond Alignment Modification.mxd User: mbs2



Residence
Non-Residential Structure
Water Access Point
PWI Watercourse
PWI Waterbody

Non-Private Land Ownership (Assumed)
Federal Land
Corporate Land
State Land

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

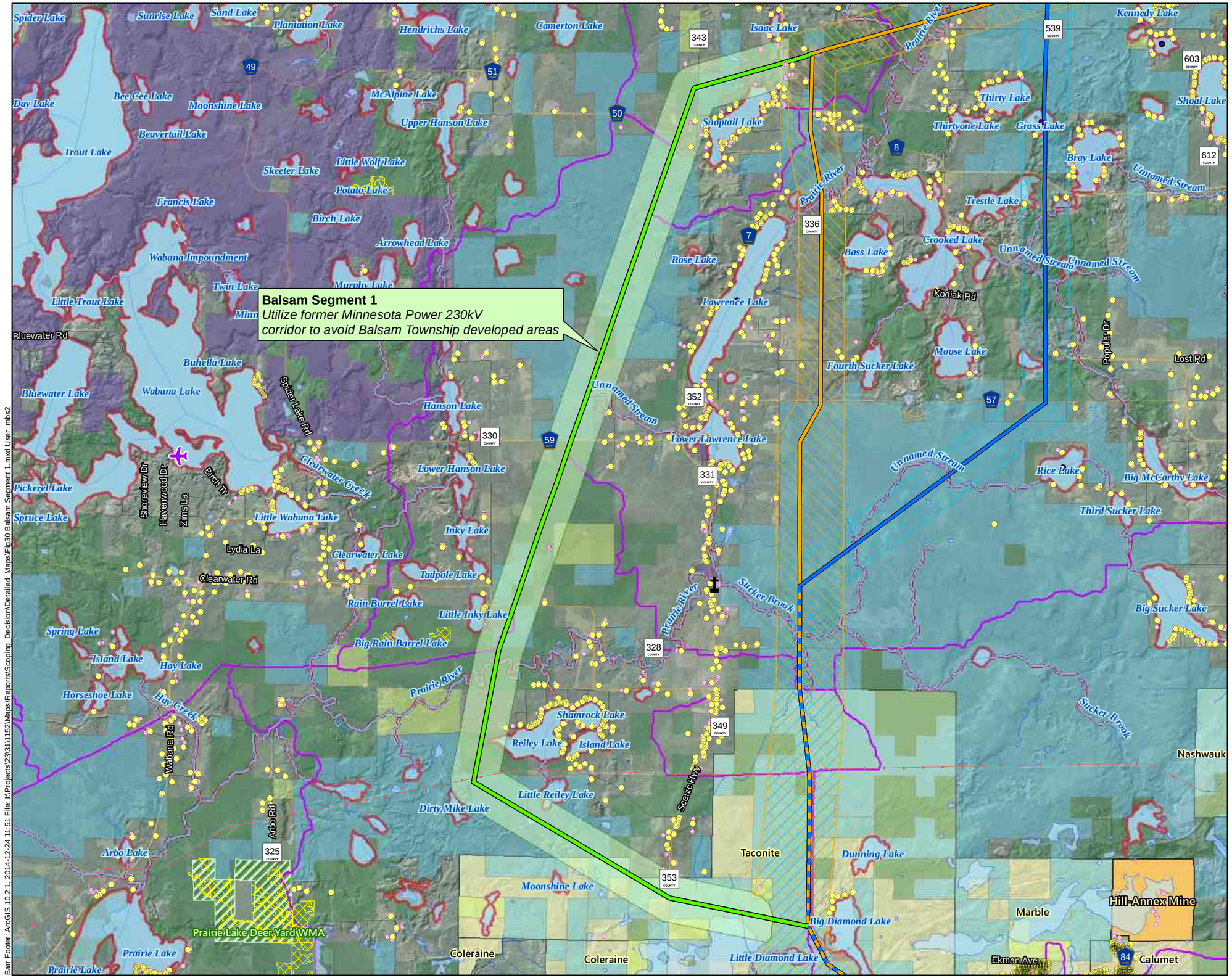
Proposed Routes
Proposed Blue Route
Proposed Blue Route
Proposed Orange Route

Feet
1,500 0 1,500

Figure 29
(Overview Ref. I-9)
DEAD MAN'S POND SEGMENT
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-16 16:55 File: I:\Projects\23\31\11152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig29 Dead Man's Pond Segment.mxd User: mbs2



Residence
Non-Residential Structure
Church
Airport
Snowmobile Trail
PWI Watercourse
PWI Waterbody
Ecologically Important Lowland Conifers
Aquatic Management Area
Wildlife Management Area

Non-Private Land Ownership (Assumed)
County Land
Federal Land
Other Public Land
Corporate Land
State Land
State Park

Existing Transmission Lines
69 or 115 kV

Scoping Process
Alternative Route Segment Alignment
Alternative Route Segment

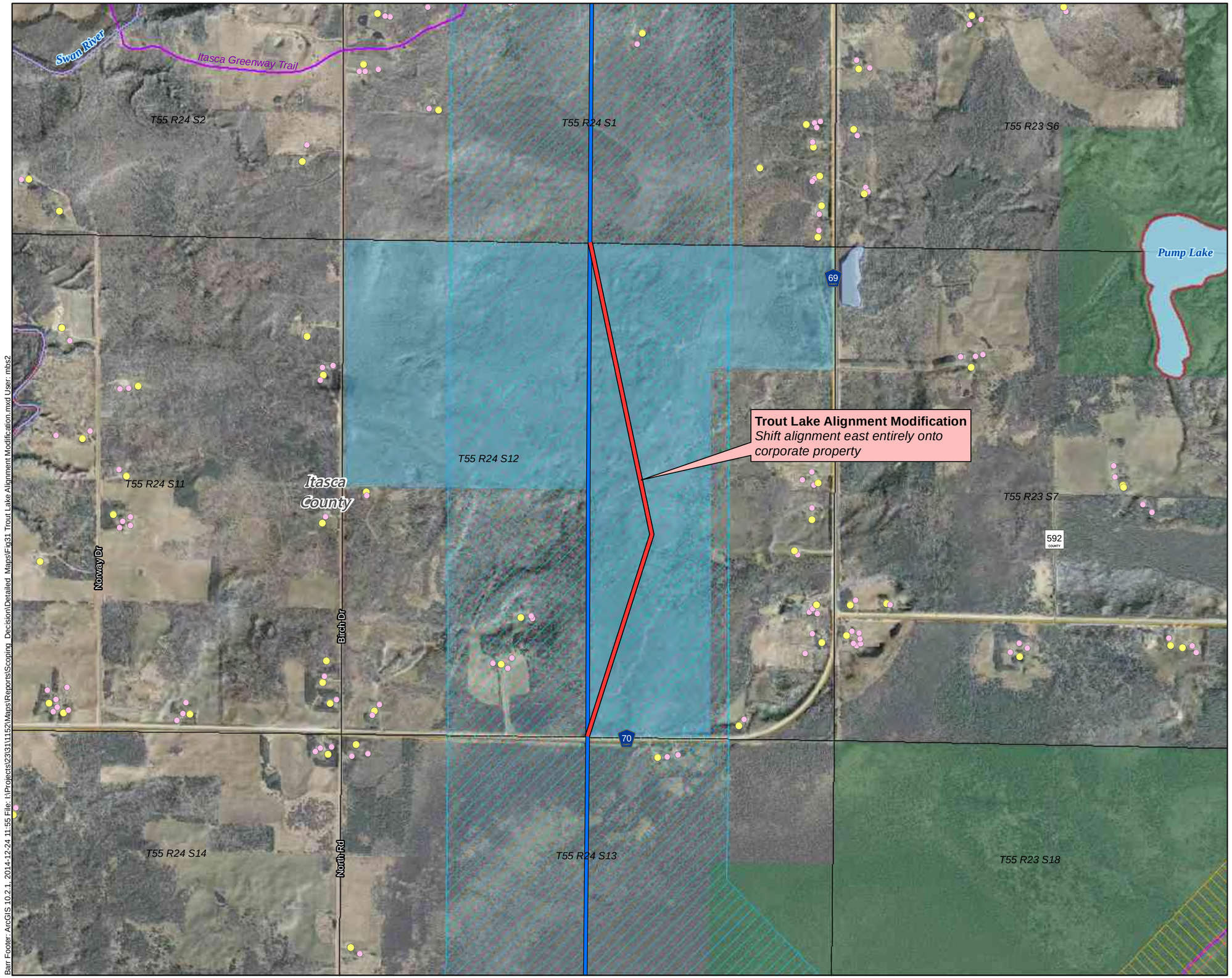
Proposed Routes
Proposed Blue Route
Proposed Orange Route
Proposed Blue/Orange Shared Route
Proposed Blue Route
Proposed Orange Route

Feet
6,000 0 6,000

Figure 30
(Overview Ref. I-9)
BALSAM SEGMENT 1
Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY
MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:51 File: I:\Projects\23\31\1152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig30 Balsam Segment 1.mxd User: mbs2



Residence
Non-Residential Structure
PWI Watercourse
PWI Waterbody
Non-Private Land Ownership (Assumed)
Corporate Land
State Land
Existing Transmission Lines
69 or 115 kV
Scoping Process
Alignment Modification
Proposed Routes
Proposed Blue Route
Proposed Blue Route
Proposed Orange Route

Feet
1,000 0 1,000

Figure 31

(Overview Ref. I-10)

TROUT LAKE ALIGNMENT MODIFICATION

Great Northern Transmission Line Scoping Decision

U.S. DEPARTMENT OF ENERGY

MINNESOTA DEPARTMENT OF COMMERCE

Barr Footer: ArcGIS 10.2.1, 2014-12-24 11:55 File: I:\Projects\23\31\11152\Maps\Reports\Scoping_Decision\Detailed_Maps\Fig31 Trout Lake Alignment Modification.mxd User: mbs2