Proposed HVTL

Twin Lakes Road

Phase II HVTL

GREENWAY 115/23 KV SUBSTATION TO BE DEMO'D

BLACKBERRY 230/115 KV SUBSTATION

PRAIRIE DEER YARD STATE WILDLIFE MANAGEMENT AREA

IRON RANGE

GREENWAY MINE

TRAIL

Excelsior Energy Inc.

Mesaba Energy Project

Energy, Innovation, and Economic Development for Minnesota

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West Range

December 2008

Legend

- Footprint and Buffer Land
- Proposed HVTL
- HVTL Phase II
- HVTL Mileposts
- HVTL Substations
- **Existing HVTL (Company, Line)**
  - MP, 20 LINE
  - MP, 83 LINE
- Cities
- U.S. Highways
- Other Highways

Source: ESRI, USGS, Mn/EQB, LMIC, Excelsior Energy, and SEH.
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Figure F2-12

West Range HVTL

Itasca County - South Coordinate System

0 6,000 Feet

Map Document: (\\sp3020-1\projects\AE\E\Exxen\05020003\Environmental\gis\MXDs_Wetland_Permit\Figure 12 - WR HVTL Milepost Map 11x17.mxd)
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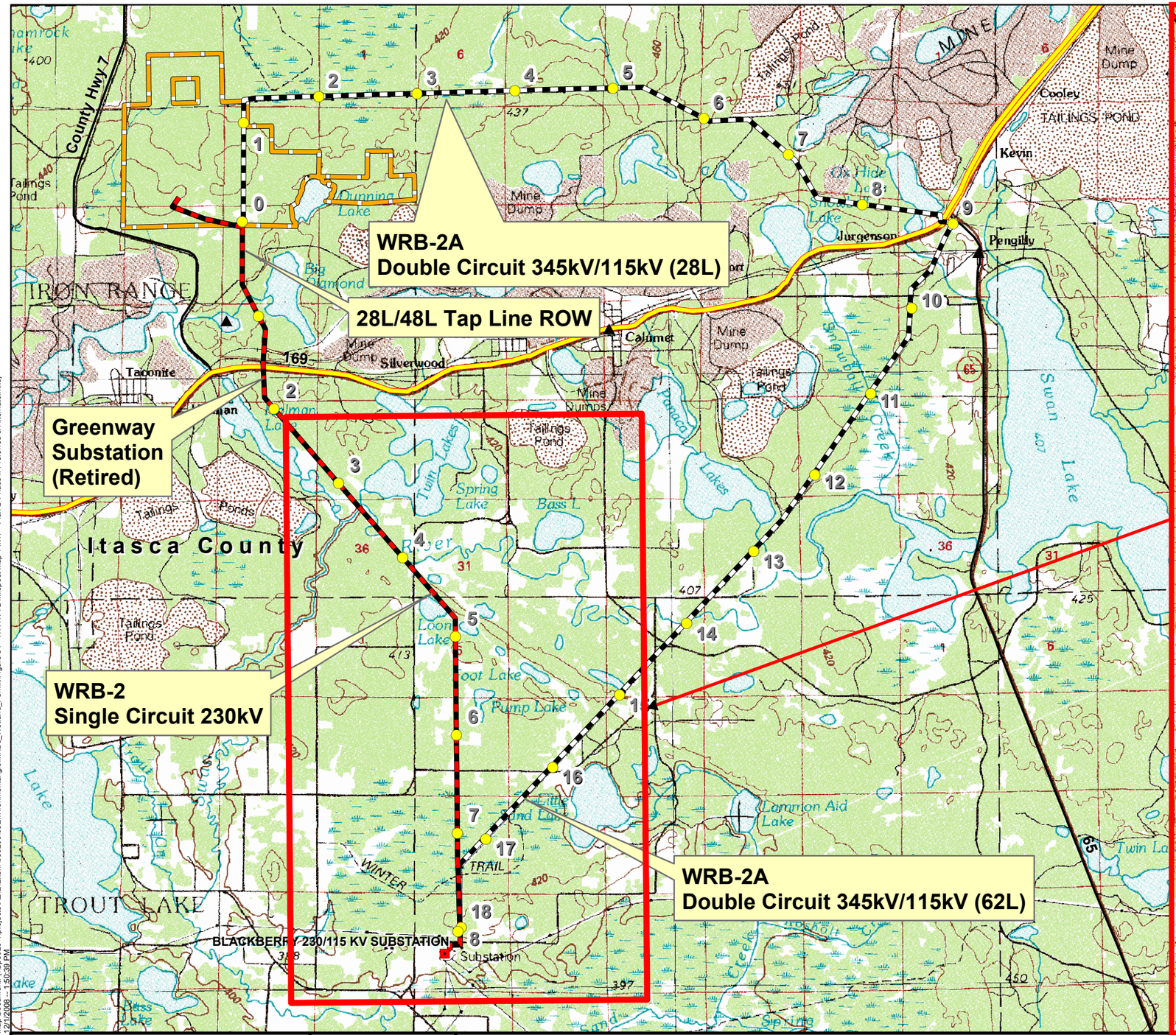

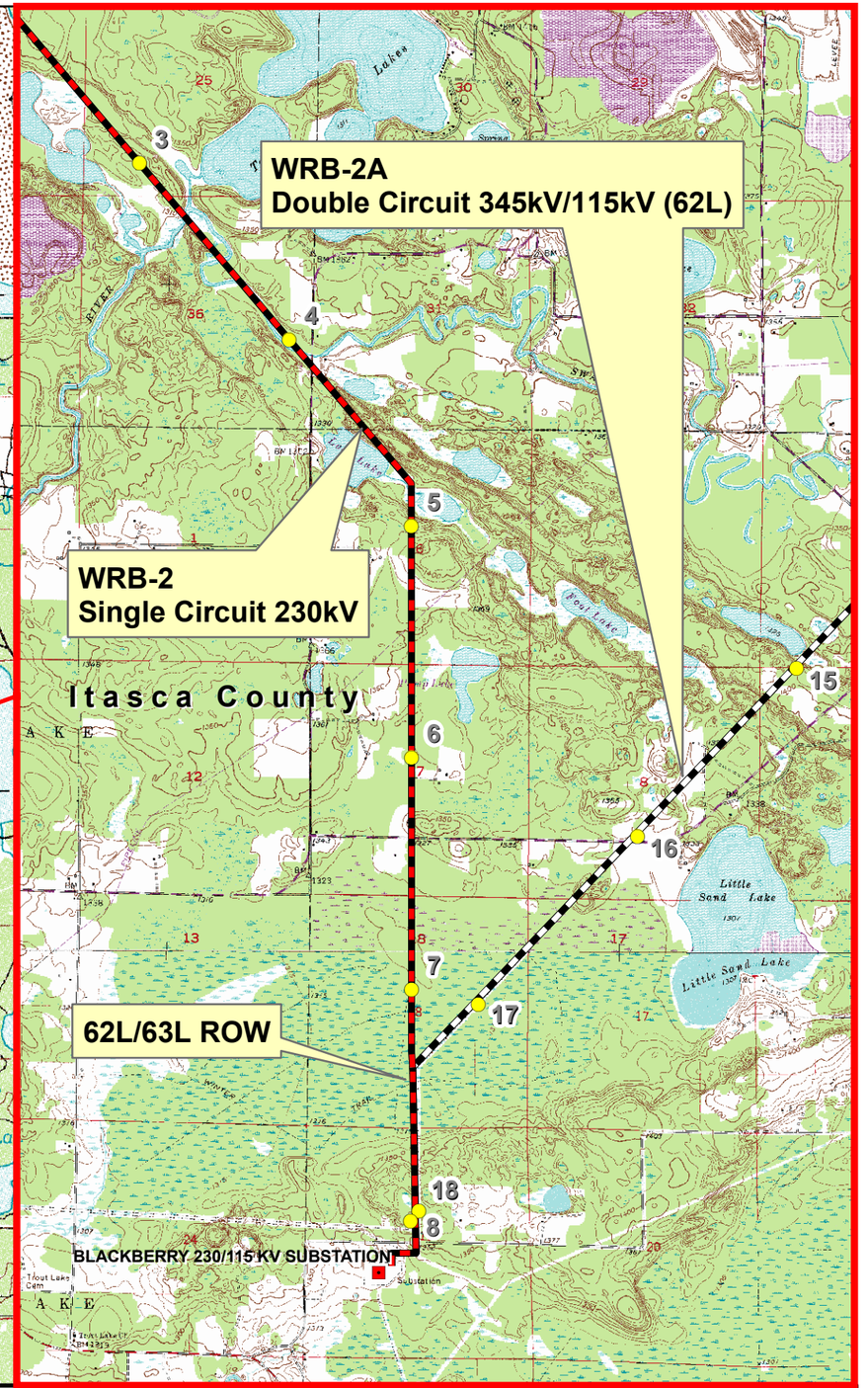

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West Range

December 2008

Legend

- Footprint and Buffer Land
- HVTL Substations
- HVTL Mileposts
- HVTL Alternate
- HVTL Phase II
- Cities
- Counties
- U.S. Highways
- Other Highways

Source: ESRI, USGS, Mn/EQB, LMIC, Excelsior Energy, and SEH.
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Figure F2-13

Contingent HVTL Plan B Phase KK Alternative Alignments Mileposts

UTM, Zone 15, Meters
NAD83

N W E S

0 6,000 Feet

Map Document: (\\Sp3020-1\projects\AE\E\Exenr\050200\03\Environmental\gis\MXDs_Wetland_Permit\Figure 31 - WR HVTL Milepost Map 11x17 - Plan B Phase II Preferred & Alternate.mxd)
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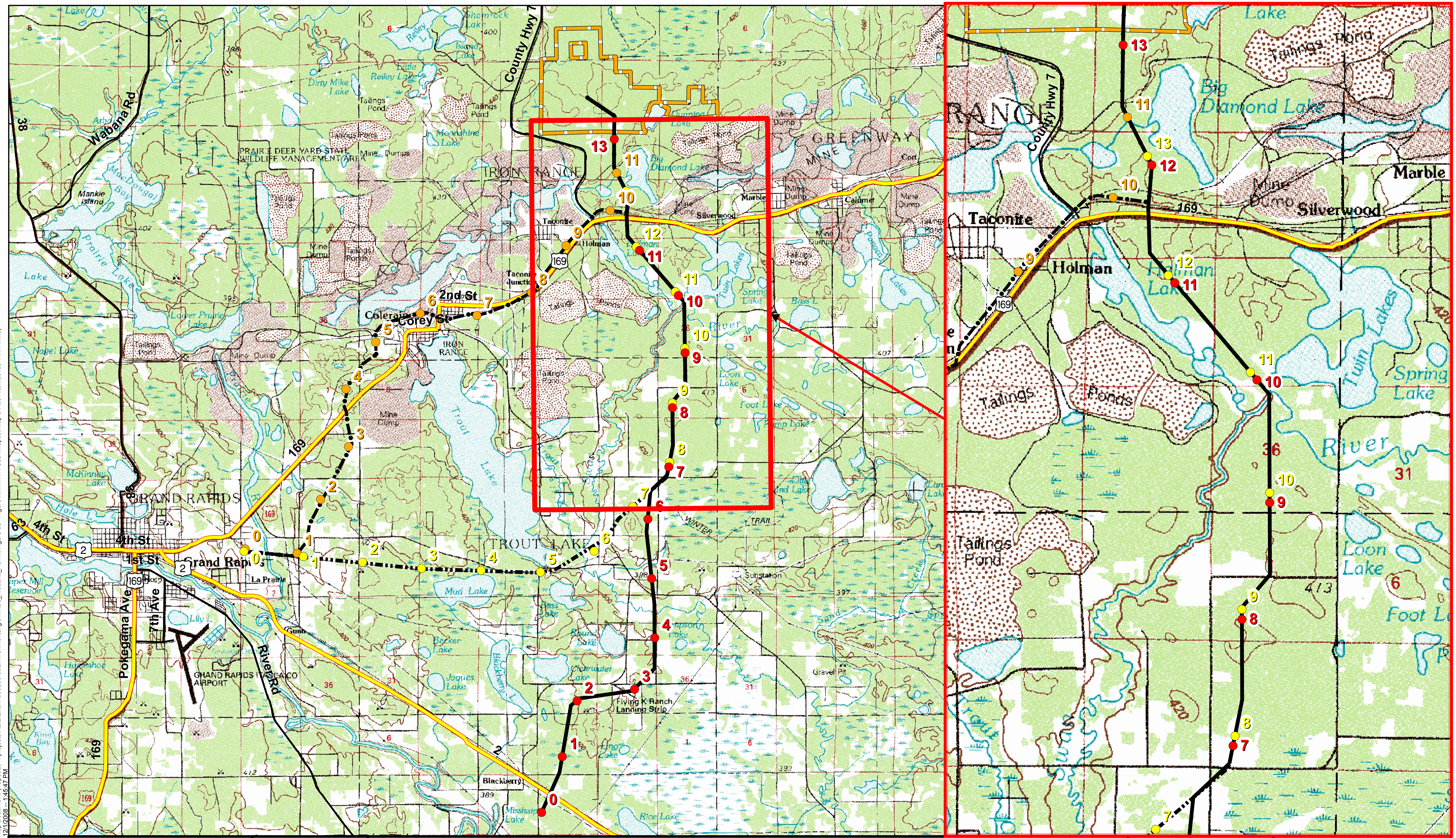

Map Document: (\\Sp3020-1\projects\AE\E\Exenr\050200\03Environmental\gis\MXDs_Wetland_Permit\Figure 32 - Figure X.X-X WR Gas Milepost Map & Add Alternatives 11x17.mxd)
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West Range

December 2008

Legend

- Footprint and Buffer Land
- Gas Proposed (Alt 1)
- Gas Alt 2
- Gas Alt 3
- Gas Proposed (Alt 1) Mileposts
- Gas Alt 2 Mileposts
- Gas Alt 3 Mileposts
- U.S. Highways
- Other Highways

Appendix F

Source: ESRI, USGS, NNG, Excelsior Energy, and SEH.
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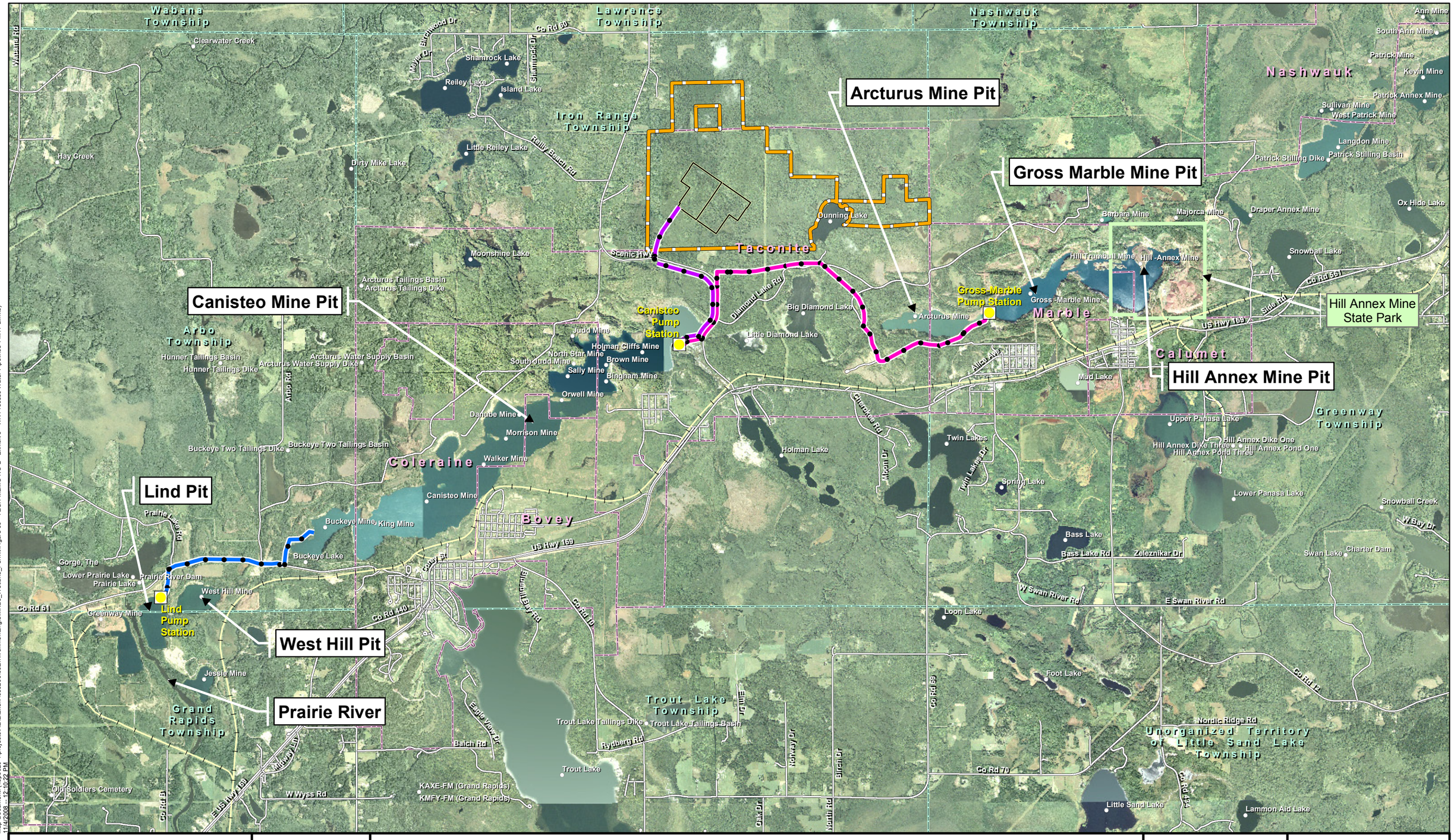
Figure F2-14

Natural Gas Pipeline Alternatives

Itasca County - South Coordinate System

N E S W

0 8,000 Feet



Map Document: (\\sp3020-1\projects\AE\E\Exenr\050200\03Environmental\gis\MXDs_Wetland_Permit\Figure 09 - TECH MEMO NO 2 - Exhibit 5 - WR Process Water Pipelines 11x17 L.mxd)
1/4/2008 -- 12:10:22 PM

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West Range

November 2008

Legend

- Footprint and Buffer Land
- Plant Layout
- Source Water
- Proposed Pump Station
- **Proposed Process Water Lines**
  - Segment 1
  - Segment 2
  - Segment 3
- Existing Roads
- Existing Railroads
- Geographic Names
- Municipal Boundaries
- Civil Township
- State Park

Appendix F

Source: NAIP 2006, USGS, Mn/DNR, Mn/DOT, Itasca County, Fluor, Excelsior Energy, and SEH.
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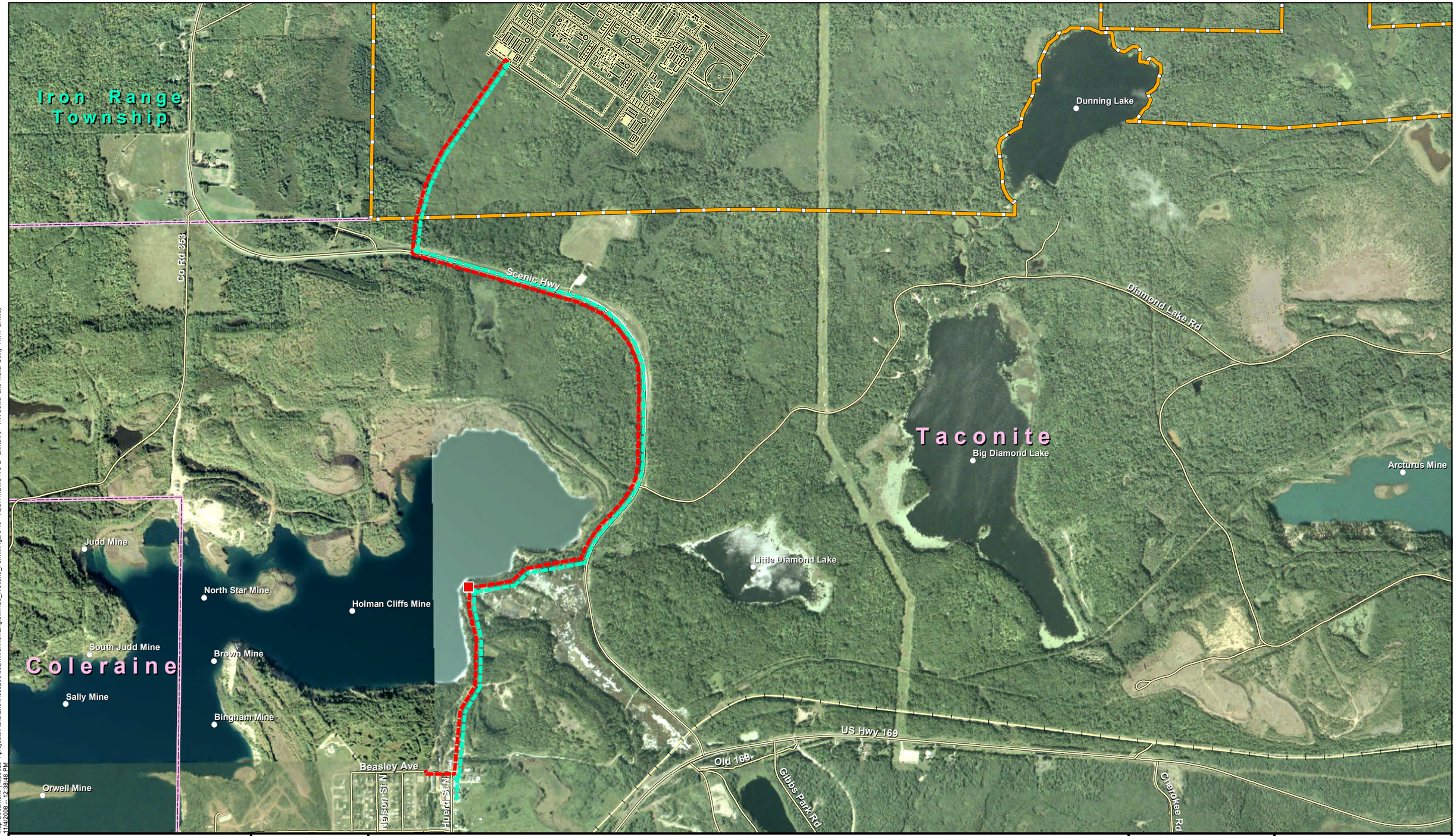
Figure F2-15

Process Water Routes

Itasca County - South Coordinate System

N W E S

0 5,000 Feet



Map Document: (\\sp3020-1\projects\AE\E\Exenr\050200\03Environmental\gis\MXDs_Wetland_Permit\Figure 10 - TECH MEMO NO 2 - Exhibit 6 - WR Sewer and Water Utility 11x17 L.mxd)
11/4/2008 -- 12:38:48 PM

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West Range

November 2008

Legend

- Plant Layout
- Footprint and Buffer Land

Proposed Utilities

- Potable Water
- Gravity Sewer
- Proposed Sanitary Pump Station

- Geographic Names
- Municipal Boundaries
- Civil Township

- Existing Roads
- Existing Railroads

Appendix F

Source: NAIP 2006, Itasca County, Mn/DOT, Mn/DNRUSGS, USFWS, Fluor, Excelsior Energy, and SEH.
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Figure F2-16

Proposed Sanitary & Potable Water

Itasca County - South Coordinate System

N W E S

0 1,300 Feet