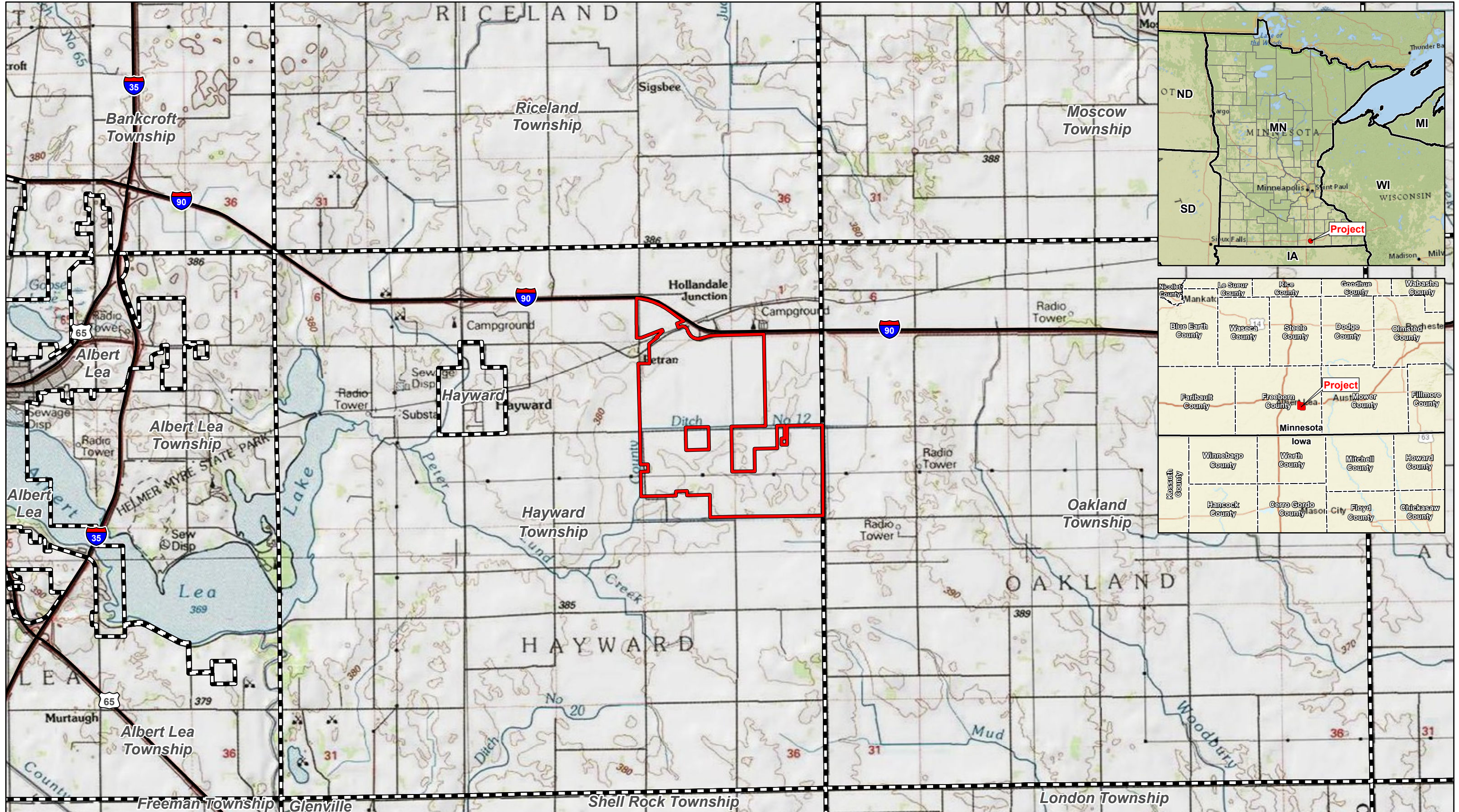


# Figures



Data Source(s): Westwood (2021); ESRI WMS  
 USA Topo, National Geographic, & World Streets  
 Basemaps (Accessed 2021); Census Bureau  
 (2019).

**Legend**

- Project Area
- Municipal Boundary
- Major Road



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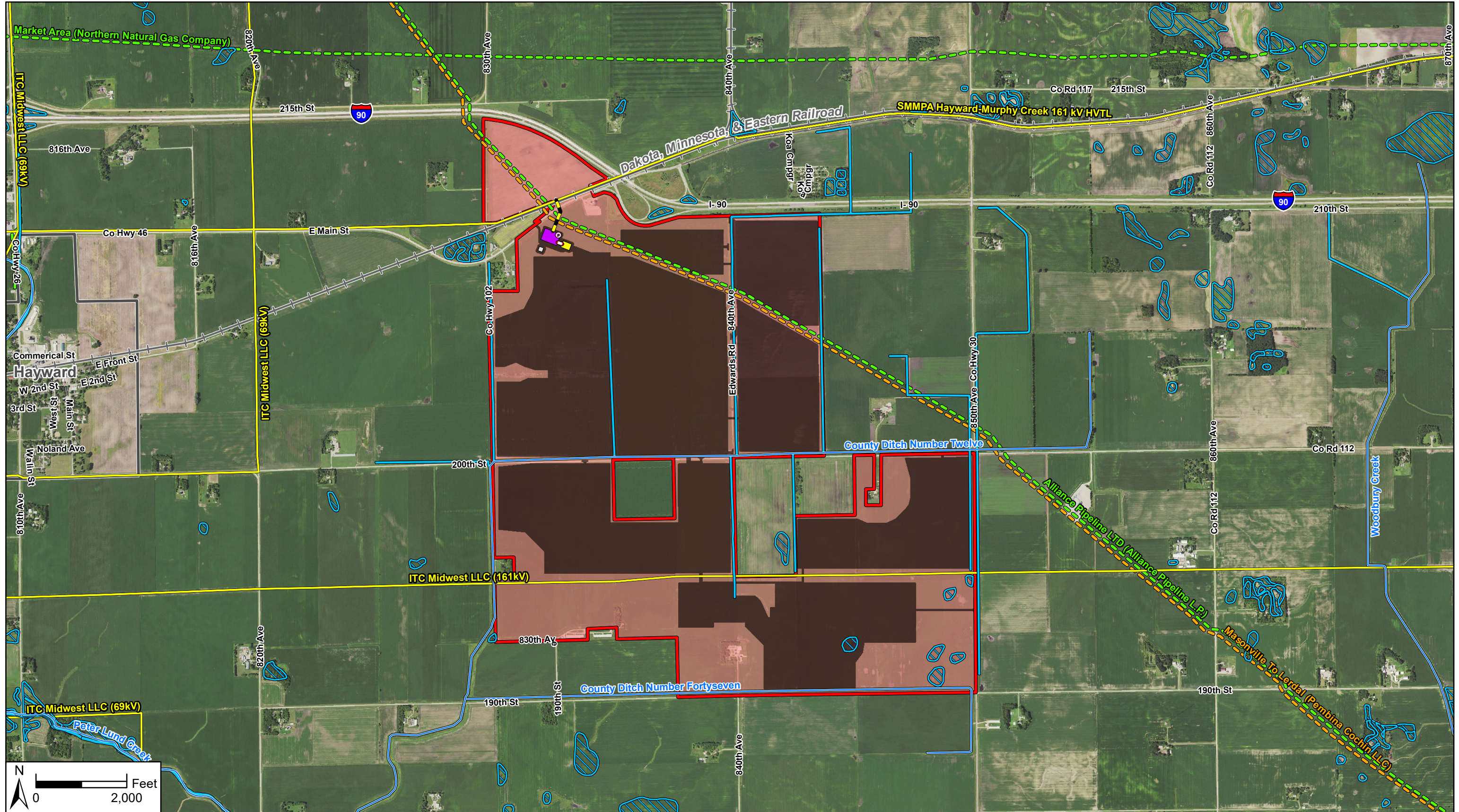
**Hayward Solar Project**

Freeborn County, Minnesota

Project Location &  
 USGS Topography

FIGURE 1

Map Document: N:\0026599\_00\GIS\SPA\Figures\Hayward\_SPA\_Fig01\_ProjectLocation&USGSTopography\_210427.mxd 4/27/2021 5:03:26 PM radevici



Data Source(s): Westwood (2021); Minnesota NAIIP Imagery (2019); Census Bureau (2019); Ventyx Velocity Suite, Ventyx Energy LLC, (2020); USGS NHD Dataset (2019); U.S. Fish and Wildlife Service (2020); Ducks Unlimited (2020); NPMS (2021). Existing pipeline routes are approximate.

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**Legend**

- Project Area
- Proposed Substation
- Current Site Control Area
- SMPMA Switchyard
- Preliminary Development Area
- Proposed O&M Building
- Municipal Boundary
- POI
- SMPMA Line Tap
- Project Gen-Tie Line
- Existing Transmission Line
- Existing Natural Gas Pipeline
- Existing Crude Oil Pipeline
- Major Waterway
- NW1 Wetland
- Railroad

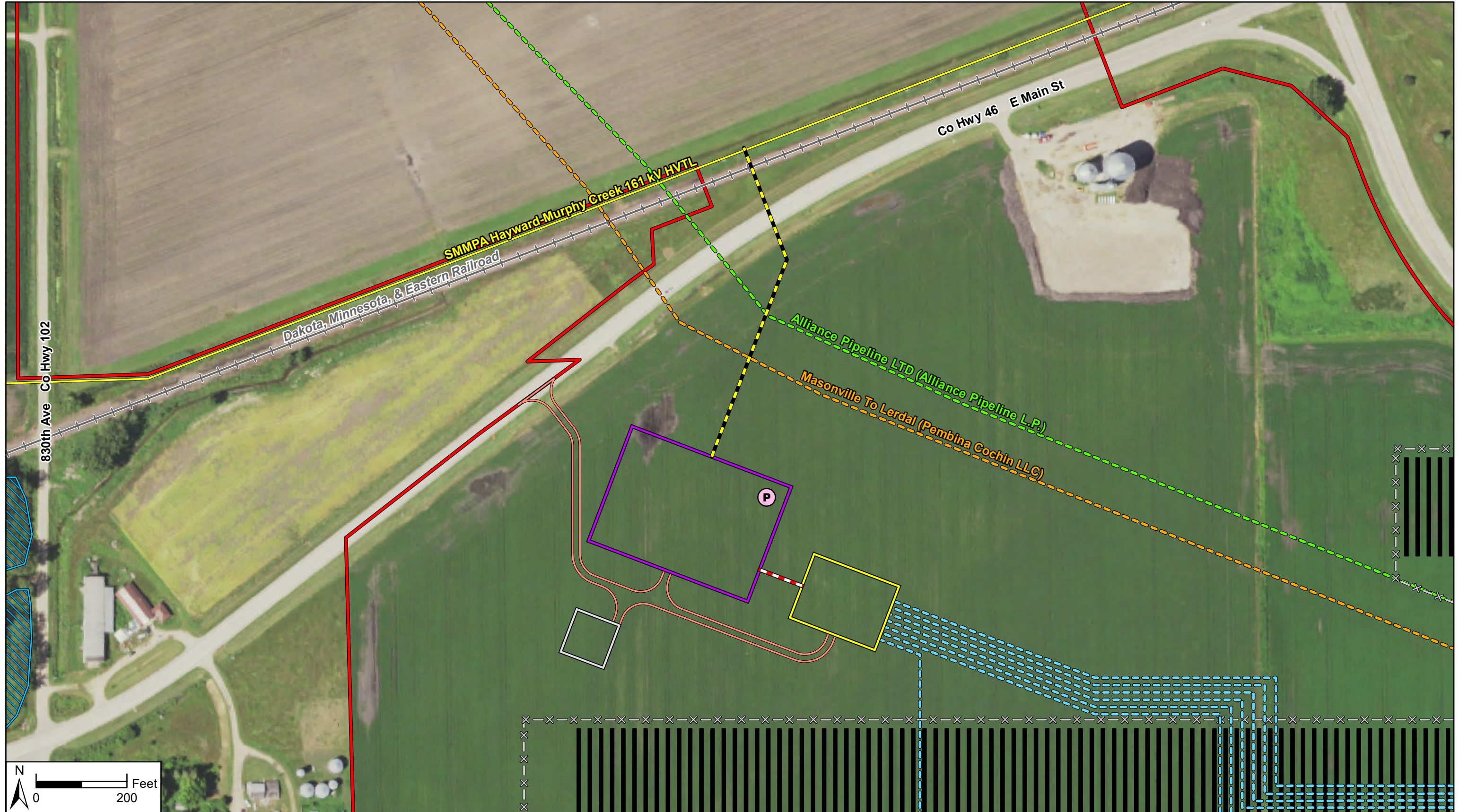
**Hayward Solar Project**

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**Land Rights & Preliminary Development Area**

FIGURE 2

Map Document: N:\0026599\_00\GIS\SPA\_Figures\Hayward\_SPA\_Fig02\_LandRights&PreliminaryDevelopmentArea\_210427.mxd, 4/27/2021, 5:08:01 PM, adevib



Data Source(s): Westwood (2021); Minnesota NAIIP Imagery (2019); Census Bureau (2019); Ventyx Velocity Suite, Ventyx Energy LLC (2020); USGS NHD Dataset (2019); U.S. Fish and Wildlife Service (2020); Ducks Unlimited (2020); NPMS (2021). Existing pipeline routes are approximate.



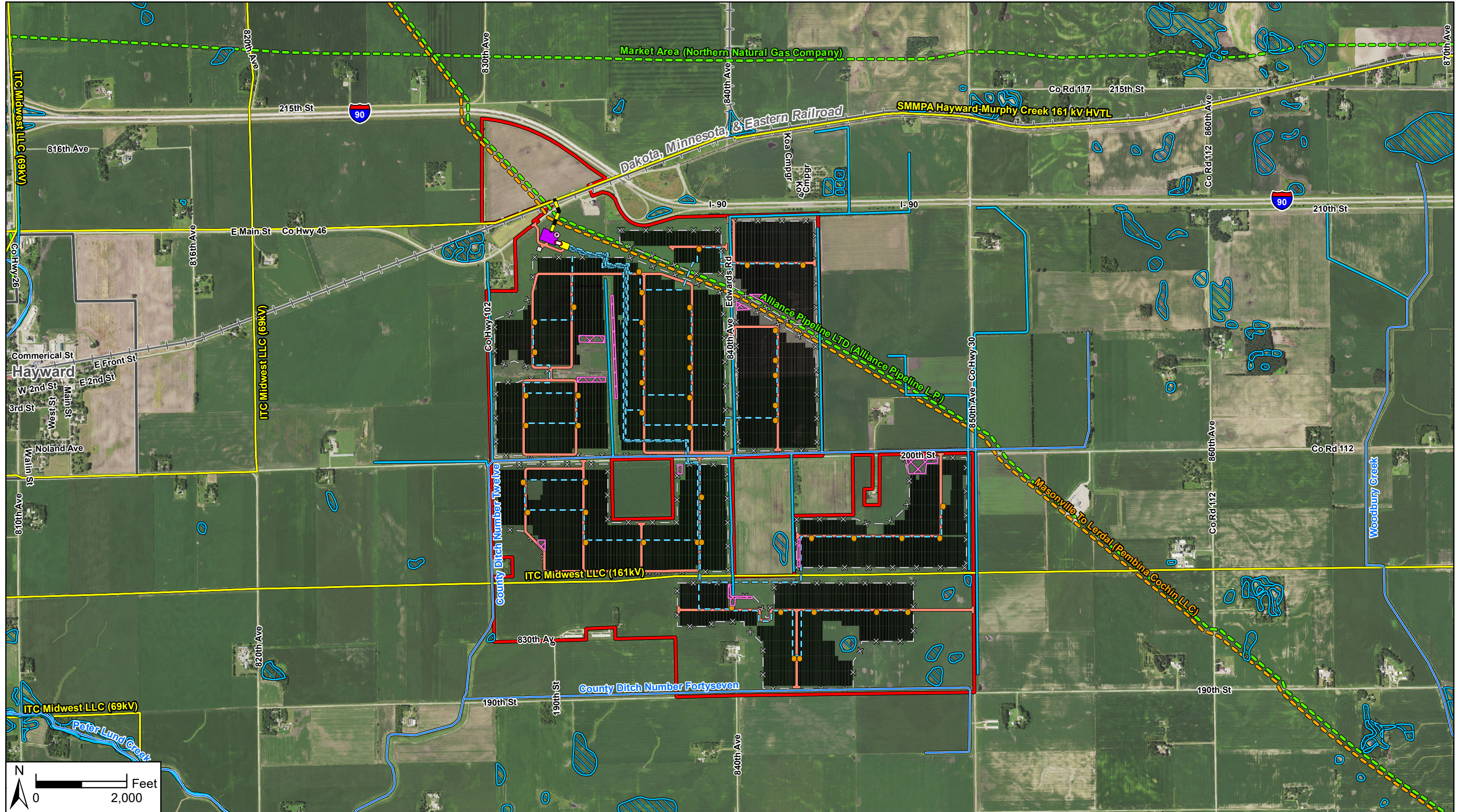
**Legend**

- Project Area
- Proposed Project Access Road
- SMMPA Line Tap
- Project Gen-Tie Line
- Proposed Project Underground Collection Line
- Proposed Project Substation
- SMMPA Switchyard
- Proposed Project O&M Building
- Proposed Project Inverter
- P POI
- Proposed Project Water Basin
- Major Waterway
- NWI Wetland
- Existing Transmission Line
- Existing Natural Gas Pipeline
- Existing Crude Oil Pipeline
- Railroad

**Hayward Solar Project**  
Freeborn County, Minnesota

**Project Interconnection Facilities**

FIGURE 3



Data Source(s): Westwood (2021); Minnesota NAIP Imagery (2019); Census Bureau (2019); Ventyx Velocity Suite, Ventyx Energy LLC, (2020); USGS NHD Dataset (2019); U.S. Fish and Wildlife Service (2020); Ducks Unlimited (2020); NPMS (2021). Existing pipeline routes are approximate.

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- Legend**
- Project Area
  - Proposed Project Solar Array Layout
  - Proposed Project Collection Line
  - Proposed Project Fence Boundary
  - Municipal Boundary
  - Proposed Project Access Road
  - Proposed Project Collection Line
  - Proposed Project Inverter
  - Proposed Project Substation
  - SMMPA Switchyard
  - Proposed Project O&M Building
  - POI
  - SMMPA Line Tap
  - Project Gen-Tie Line
  - Proposed Project Water Basin
  - Major Waterway
  - NWI Wetland
  - Existing Transmission Line
  - Existing Natural Gas Pipeline
  - Existing Crude Oil Pipeline
  - Railroad

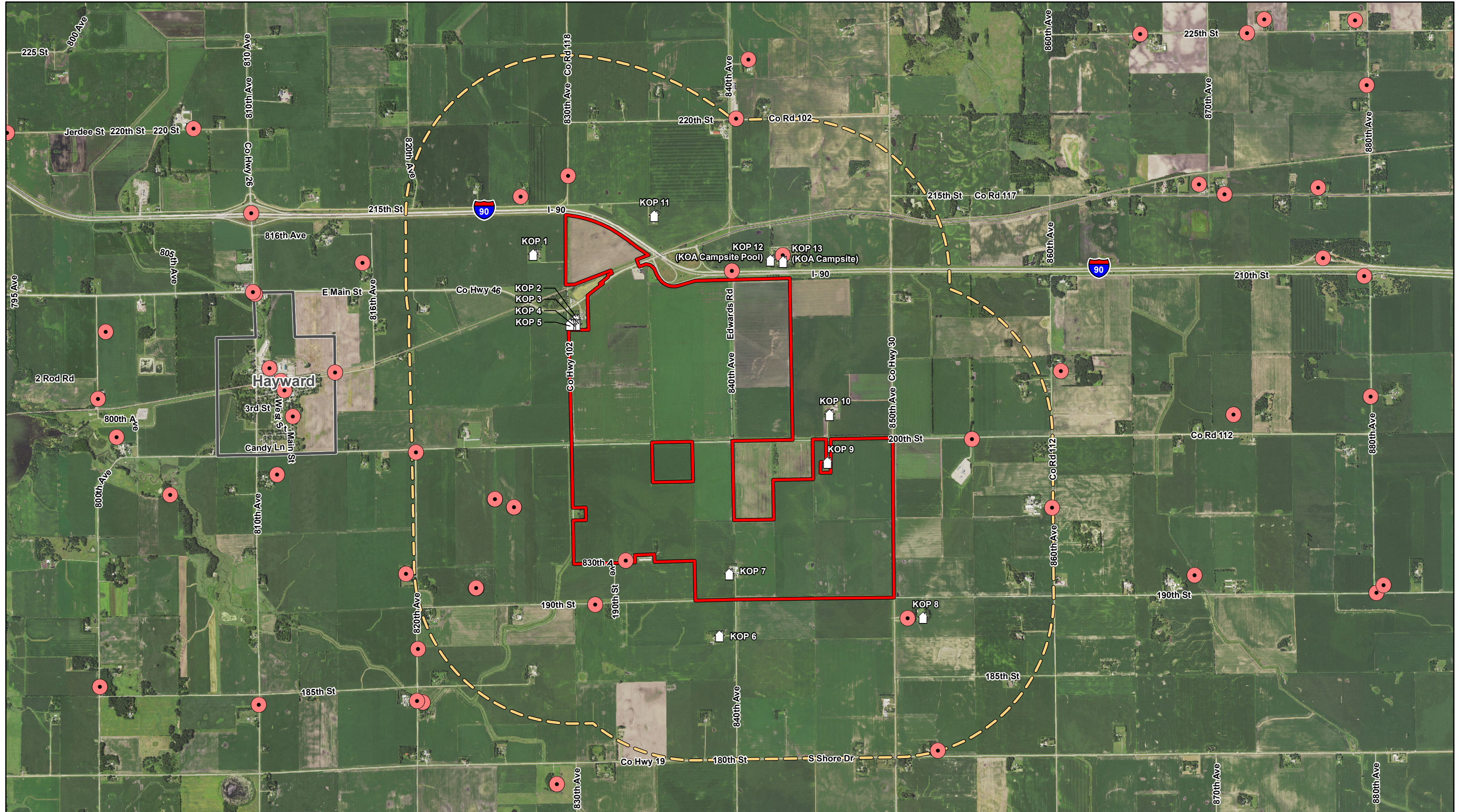
# Hayward Solar Project

Freeborn County, Minnesota

## Preliminary Facility Design

FIGURE 4

Map Document: N:\0026599.00\GIS\SPA\_Figures\Hayward\_SPA\_Fig04\_PreliminaryFacilityDesign\_210427.mxd, 4/27/2021, 5:07:16 PM, radevito



Data Source(s): Westwood (2021); Minnesota NAIP Imagery (2019); Census Bureau (2019); Minnesota Pollution Control Agency (2021).

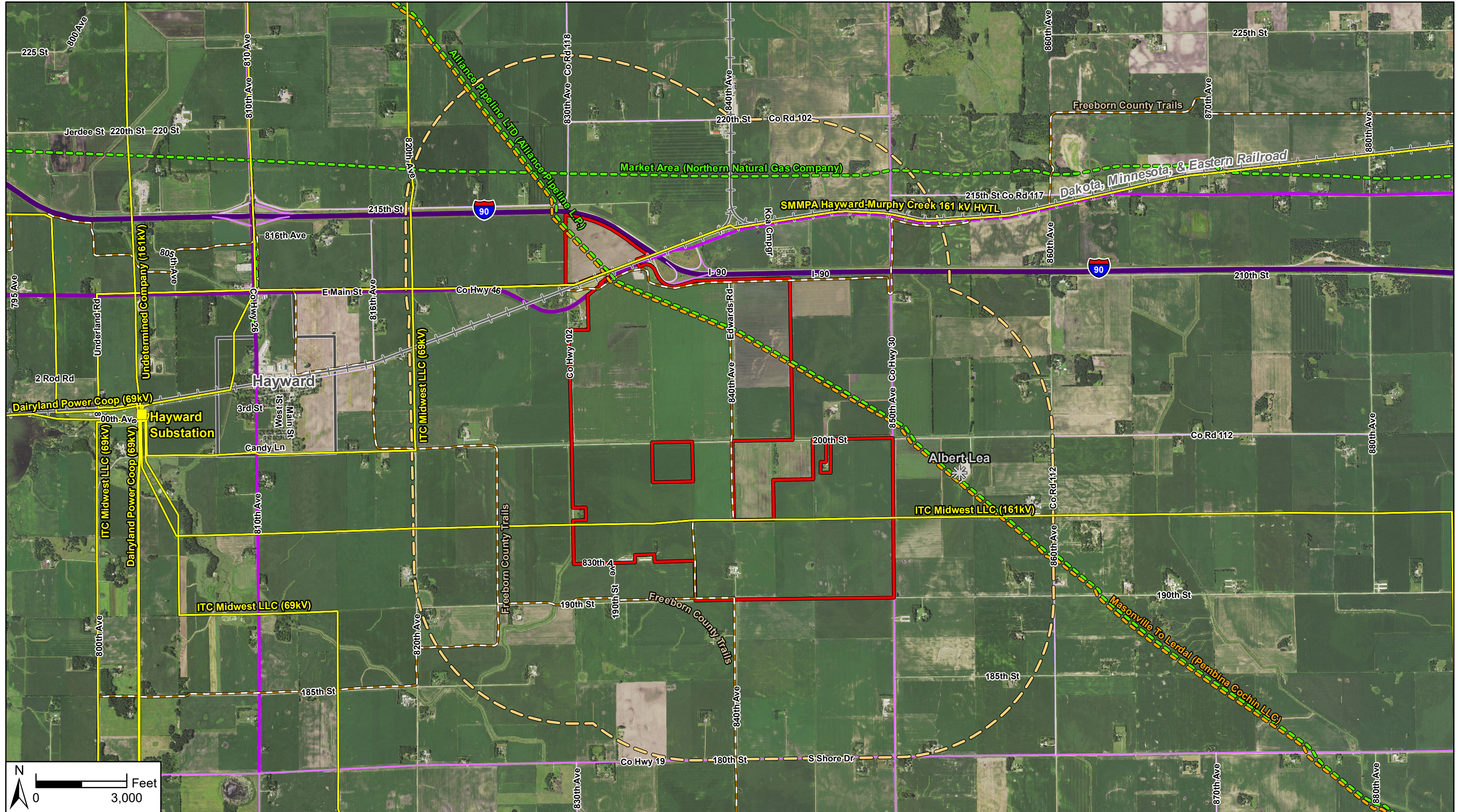
**Legend**

- Project Area
- 1-Mile Project Area Buffer
- MPCA Site
- Nearby Residence or Campground Site
- Municipal Boundary



**Hayward Solar Project**  
Freeborn County, Minnesota

MPCA Sites in Project Vicinity



Data Source(s): Westwood (2021); Minnesota NAIP Imagery (2019); Census Bureau (2019); Ventyx Velocity Suite, Ventyx Energy LLC (2021); NIMS (2020); MNDOT (2021); NPMS (2021). Existing pipeline routes are approximate.

**Legend**

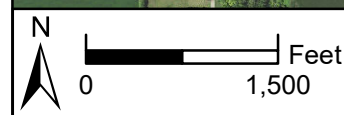
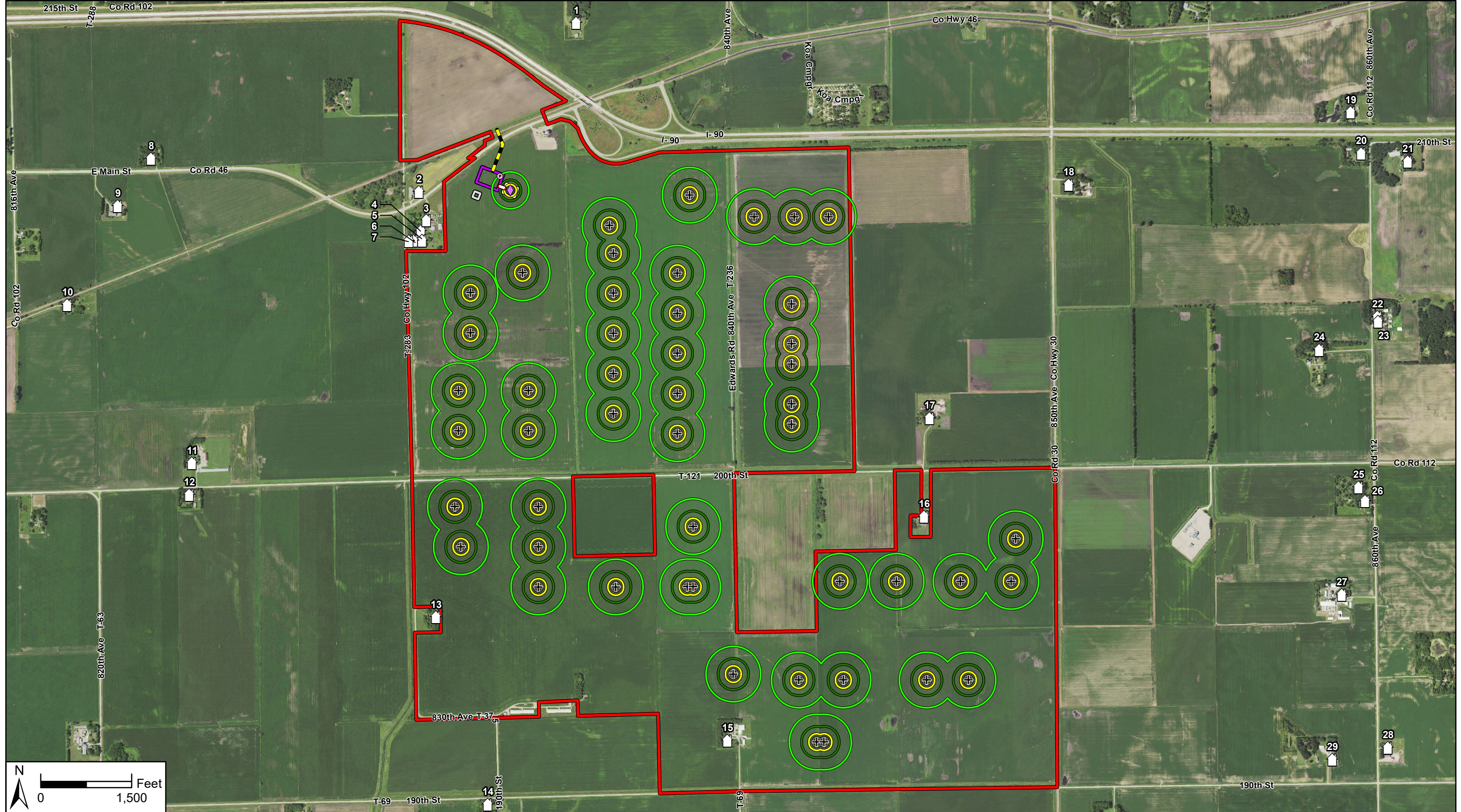
- |                            |                                |                               |                  |             |                |
|----------------------------|--------------------------------|-------------------------------|------------------|-------------|----------------|
| Project Area               | Existing Substation            | Existing Transmission Line    | Railroad         | 15 - 205    | 1,501 - 2,800  |
| 1-Mile Project Area Buffer | Airport                        | Existing Natural Gas Pipeline | Snowmobile Trail | 206 - 810   | 2,801 - 12,700 |
| Municipal Boundary         | Natural Gas Compressor Station | Existing Crude Oil Pipeline   |                  | 811 - 1,500 |                |

**Hayward Solar Project**  
Freeborn County, Minnesota

**Existing Infrastructure & Traffic Summary**

FIGURE 6

Map Document: N:\0026599\_00\GIS\SPAs\Figures\Hayward\_SPA\_Fig06\_ExistingInfrastructure&TrafficSummary\_210427.mxd 4/27/2021 5:20:52 PM rdevillo



Data Source(s): Westwood (2021); Minnesota NAIP Imagery (2019); Census Bureau (2019).

**Legend**

- Project Area
- Proposed Project Substation
- SMMPA Switchyard
- Proposed Project O&M Building
- + POI
- + Proposed Project Inverter Skid
- + Proposed Project Substation Transformer
- + Residence
- SMMPA Line Tap
- Project Gen-Tie Line

**Decibel Levels**

- 90dBA
- 55dBA
- 40dBA
- 75dBA
- 50dBA
- 35dBA
- 60dBA
- 45dBA

**Hayward Solar Project**  
Freeborn County, Minnesota

**Noise Modeling Results**



FIGURE 7

Map Document: N:\0026599\_00\GIS\SPA\Figures\Hayward\_SPA\_Fig07\_NoiseModelingResults\_210427.mxd 4/27/2021 5:38:09 PM radervito