Appendix N
Agency Meeting Notes

MEMO

To: Triple H Wind Project Files
From: Christina White
Date: 10/19/16

RE: Call with Deb Williams – USFWS, Huron Wetland Management District – and Silka Kempema, South Dakota Game, Fish, and Parks Department

The purpose of the call w was to discuss the results of the field surveys for the Triple H Wind Project on migratory birds, with specific focus on eagles. The call occurred between Christina White with Infinity Renewables; Deb Williams with USFWS, Huron Wetland Management District; Silka Kempema with South Dakota Game, Fish, and Parks Department, and Brian Heath with WEST, Inc. The following are the high level points from the call.

- Prior to the call, Brian provided Deb and Silka with a project boundary map noting that we would discuss the Tier 3 methodology for the area in detail. Brian noted that the scope of the field surveys was based on the USFWS Wind Energy Guidelines and the Eagle Conservation Plan Guidance.
- Christina provided a general overview of the project and noted possibility of expanding the project outside of the boundary.
- Deb identified several conservation wetland and grassland easements that are likely to be present in the project area. She noted that these conservation easements are held in perpetuity and that it would be advisable to avoid dredge/fill for wetlands and any development that would result in grassland conversion. If facilities were to be placed within the easement areas, NEPA would be triggered. Following the call, Deb would send Infinity the shapefiles for those conservation easements noting that while grassland easements depicted would be accurate, wetland easements show up on the entire parcel although they're limited to wetlands and streams within that parcel.
    - Action Item: Deb to send conservation easements shapefiles to Infinity.
- Avian Point Counts would be designed and implemented following Eagle Conservation Plan Guidance to include the following:
    - Temporal and spatial use of the project area by eagles, raptors, waterfowl, waterbirds, etc.
    - Circular plots 800-m would be established across project area to result in 30% survey coverage.
    - Surveys are conducted at each point once per month for a year with half-points surveyed one week and the other half two weeks later.
    - Each point is surveyed for one hour.
    - Flight or movement paths will be recorded for eagles, raptors, large birds, and any threatened and/or endangered species.

    - *Silka noted that with once a month visit to points, spatial coverage across the area may not be enough to capture use of the project area by birds.*
- Raptor Nest Surveys - Brian noted that West would follow Eagle Conservation Plan Guidance and Golden Eagle Inventory and Monitoring Protocols:
    - Survey project area and one-mile buffer – record all raptor nests and identify by species.
    - Survey 1-10 mile buffer for eagle nests.
    - Conducted in spring prior to tree leaf out and follow-up with second survey for any eagle nests.
    - *Deb suggested that although project area is outside of golden eagle breeding/nesting rage, that there should be a 10-mile survey buffer for eagles.*
    - Action Item: Brian to send shapefile and request to Natural Heritage3 Database for any known raptor nests in the survey areas and will coordinate through Silka.
- Acoustic Monitoring for Bats:
    - Ground-based surveys to be conducted using anabats.
    - Acoustic monitoring stations to be established in representative habitat across project area to record calls.
    - Detectors will be deployed from early May-mid-October.
    - *Deb noted that this follows USFWS protocols for monitoring bat presence/activity. The Northern Long-eared Bat occurs across the state, hibernacula have occurred only in the Black Hills, but this species is being found in other areas such as along the Missouri River and woody drainages.*
- Habitat Characterization Study:
    - Use recent aerial imagery, National Wetlands Inventory data, land cover to digitize habitat types and aide in evaluating potential impacts on species of concern.
    - *Deb noted that the project is within 75-80% of the whooping crane migration corridor. Eventually, further evaluation of the project area would be needed for stopover habitat during migration relative to adjacent areas. Should consider potential for additional monitoring during migration.*
- Prairie Grouse Lek Surveys:
    - Surveys during the breeding season to document any Greater Prairie Chicken or Sharp-tailed Grouse leks are proposed.
    - Aerial surveys with fixed wing plane along transects spaced 400-m apart on mornings with no precipitation, slight to moderate winds, and good visibility within project area and extending ½ mile buffer around project area.
    - Space out surveys 3x from approximately April 1 – May 15
    - Attempt to identify between Greater Prairie Chicken and Sharp-tailed Grouse and use on-board GPS to record potential lek locations.
    - Ground surveys to pinpoint lek locations will occur where access is permitted or from accessible county roads.
    - *SDGFP has some known lek locations that could be provided for project planning. General avoidance of siting facilities from leks should occur within 1-mile around leks. Surveys should be conducted for one year with consideration of a second year.*
    - Action Item: WEST to coordinate receiving known lek locations from Silka.

MEMO

To: Triple H Wind Project Files
From: Christina White
Date: 12/4/17

RE: Call with Leslie Murphy, Environmental Review Coordinator, South Dakota Game, Fish, and Parks Department

The purpose of the call w was to discuss the results of the Tier 3 Wind Energy Guidelines (WEG) field surveys for the Triple H Wind Project on migratory birds, with specific focus on eagles. The call occurred between Christina White and Casey Willis with Infinity Renewables; Leslie Murphy with South Dakota Game, Fish, and Parks Department (SDGFPD), and Brian Heath with WEST, Inc. The following are the high level points from the call.

- Prior to the call, Brian provided Leslie Murphy with all of the baseline survey reports completed to date for the Triple H Wind Project. Brian noted that the scope of the field surveys kicked-off in March 2016 were based on the USFWS WEG and the Eagle Conservation Plan Guidance assuming a 200MW project. He also noted that the project has since expanded since the original surveys were completed and that an additional year of surveys would be completed for the expansion area.
    - Leslie requested an updated project boundary that includes the expansion area.
- Prairie Grouse Lek Surveys
    - Three rounds of surveys were conducted during the breeding season of Spring 2016 to document any Greater Prairie Chicken or Sharp-tailed Grouse leks.
    - Aerial surveys with fixed wing plane along transects spaced 400-m apart were done on mornings with no precipitation, slight to moderate winds, and good visibility within project area and extending ½ mile buffer around project area. Due to weather and plane/pilot availability, ground surveys were conducted to supplement surveys when aerial surveys could not be performed.
    - Biologists used on-board GPS to record potential lek locations and transects and attempted to identify between Greater Prairie Chicken and Sharp-tailed Grouse leks.
    - Ground surveys to pinpoint lek locations occurred where access was permitted or from accessible county roads.
        - Eight greater prairie chicken leks were found within a ½-mile and two were located just outside of that ½-mile area. Survey areas were difficult given weather conditions.
        - In terms of sharptail grouse, individuals were identified when driving around on the ground but no dancing ground for leks were identified.
            - In 2018, West will survey expanded areas and 1-mile areas that were not previously surveyed. They'll also go back to locations where breeding

activity was documented to determine current breeding season status of the leks.
        - Leslie indicated that the SDGFP recommends no new construction within one-mile of known leks (No Surface Occupancy). SDGFP also recommends that construction occurring during the lekking period (March 1 to June 30) should avoid known leks by two miles (Timing Limitation). During post-construction (operational) periods, the SDGFPD recommended timing limitation is 3 hours after sunrise between March 1 to June 30 for a distance of 2 miles to protect leks. No activity in this buffer is recommended. SDGRP recommendations for Grouse Lek Buffers were provided (attached to this memo).
    - Casey noted that there have been observations on existing wind projects of prairie chickens within 500m of turbines where it has been speculated that they may be protected from predation.
- Avian Point Counts were designed and implemented following Eagle Conservation Plan Guidance to include the following:
    - Temporal and spatial use of the project area by eagles, raptors, waterfowl, waterbirds, etc.
    - Circular plots 800-m would be established across project area to result in 30% survey coverage.
    - Surveys were conducted at each point once per month for a year with half-points surveyed one week and the other half two weeks later.
    - Each point was surveyed for one hour.
    - Flight or movement paths were recorded for eagles, raptors, and large birds.
    - Standard fixed points were taken from April to March, 20 min all birds and 40 min just eagles.
        - 238 survey hours
        - Common observations: Red-wing, black birds, etc.
        - Eagle observations - some eagles, low use during winter and early spring
            - Bald eagles - 4 individuals; incidental observations of other eagles
            - Total eagle minutes was 14 minutes with 4 eagle minutes recorded (below 200m and within 800m of plot)
            - Golden eagle - 2 adults and 2 juveniles outside of that project area
            - No eagle nests in that project area during winter and spring time when eagles likely move into that area.
- Raptor Nest Surveys
    - Surveyed project area and one-mile buffer – record all raptor nests and identify by species.
    - Survey buffer for eagle nests.
        - One aerial nest survey was conducted. Not a lot of raptor nests.
        - Conducted survey up to 10 miles for eagle nests. No eagle nests were identified during that survey.
- Acoustic Monitoring for Bats:
    - Ground-based surveys were conducted using anabat detectors.

    - Acoustic monitoring stations were established in representative habitat across project area to record calls.
    - Detectors were deployed from early May to mid-October 2016.
        - 58% bat passes recorded as HF bats and 42% as LF bats; similar to what has been seen for other midwest facilities.
- Habitat Characterization Study:
    - Recent aerial imagery, National Wetlands Inventory data, and updated land cover to digitize habitat types were used to evaluate potential impacts on species of concern.
        - 58% of the project is dominated by cultivated croplands
        - 33% are grasslands
        - Conservation easements provided by USFWS have been incorporated into mapping to guide development.
- Whooping Crane Stopover Habitat Assessment
    - Done over larger project area including expansion area. Within that are numerous wetland features that have been identified within the project area and extended over 10 miles using TWI model.
    - Prairie pothole regions - lot of wetland areas
    - Potential crane stopover sites tend to be more concentrated in areas around the project area rather than within it. Lot of potential stopover sites both within and adjacent to the project.
    - Mapped USGS intensity use and the project that occurs in a low potential use compared to areas in the east and to the northwest.
- Action Items
    - Brian to send Leslie updated project boundary to include expansion area.
    - Another full year of avian use surveys will be conducted in the expansion area area.
    - Surveys will reflect updates in the new eagle permit rules.
    - Points will be selected within 1km buffer area of the project.
    - Prairie grouse - late March, space them a week apart if possible using 1/4 mile (400m) transects.
    - Raptor nests will be updated for the entire area, including original and expansion.
    - Leslie recommended surveying for swift fox (SGNC in SD). Historical records indicate swift fox have been recorded in the area so will need to make sure to address in future surveys or identify potential den sites, etc within project area.
    - Burrowing owls – was brought up as another potential species in the area. Brian to set-up a call with Natalie Gates of the USFWS, Huron Field Office.

17 February 2017

Recommendations for Grouse Lek Buffers

Definitions

For the purposes of this document, the following definitions have been adopted:

No-surface Occupancy (NSO): Use or occupancy of the land surface for wind development and associated infrastructure is prohibited in order to protect identified resource values. The NSO distance will be measured from the center of leks.

Timing Limitation: Use and disturbance of the land surface are prohibited during specified time periods to protect identified resource values.

Lek: The traditional display area where two or more male grouse have attended in two or more of the previous five years.

Recommendations

The NSO recommendation for Sharp-tailed Grouse is at least 1.6 km (1.0 mi), based on life-history information. No new construction in this buffer is recommended.

The recommended timing limitation during the construction year is 1 March to 30 June, for a distance of 3.2 km (2.0 mi), in order to protect leks and nests. No activity in this buffer during this time is recommended.

The recommended timing limitation during the post-construction (operational) period is 3 hours after sunrise between 1 March to 30 June, for a distance of 3.2 km (2.0 mi), to protect leks. No activity in this buffer is recommended.

Avoid placing wind developments in large, contiguous blocks of grassland. Blocks are considered fragmented by any human-derived feature (e.g., agricultural uses, fences, transmission lines, roads, burned areas) that subdivides them. Maintaining habitat connectivity between leks is important because both males and females use multiple leks throughout the breeding season.

For Greater Prairie-Chickens, the values reported for minimum area requirements, home range, and area needed for successful reintroductions range from 5.1 – 61.4 km^2 (2 – 23.7 mi^2) (Svedarsky et al. *unpublished data*). For Sharp-tailed Grouse, reported home range values range from 0.32 – 2 km^2 (0.12 – 0.7 mi^2) (Connelly et al. 1998). Area needed for successful reintroductions is 33 km^2 (12.7 mi^2). In recent study in central South Dakota, the average home range size for prairie grouse (Greater Prairie Chickens and Sharp-tailed Grouse) was 13.9 km^2 (5.4 mi^2; Runia and Solem 2015).

Minimize road densities and traffic volume. Use existing roads when possible. Limit construction of new roads.

Close and re-vegetate travel ways where appropriate. Re-vegetate closed roads with a suitable seeding mixture for the type of disturbed habitat (e.g.native prairie, or planted grassland).

INFINITY
RENEWABLES

MEMO

To: Triple H Wind Project Files
From: Casey Willis
Date: 01/19/2018

RE: Call with Natalie Gates – USFWS

The purposed of the call was to discuss the ongoing results from the field surveys that are occurring at the Triple H Wind Project. The call occurred between Casey Willis with Infinity Renewables; Natalie Gates from the USFWS; and Brian Heath with WEST, Inc. The following are the high-level points from the call.

- Brian provided an overview of the ongoing field survey efforts that WEST was undertaking on behalf of Infinity Renewables within the Triple H Wind Project area.
- Brian noted surveys began in 2016 and are ongoing. The reports provided to Natalie prior to the call were based on the smaller subset area.
- Natalie asked about the size of the project and number of turbines. Casey indicated the project was targeted at 250 MW with the potential to expand to 750 MW. The number of turbines was unclear as a turbine model had not been selected.
- Brian noted that over the course of 237 hours of monitoring there were 4 bald eagle observations reflecting 14 eagle minutes of use. Observations were in winter and spring.
- Natalie noted Eagle Guidance recommends 60-minute counts. Brian responded that surveys began prior to recent guidance being finalized, but current surveys were modified to reflect the current recommendations.
- Natalie asked about the prey bases. Brian responded indicated that there were not any identified in the project area, but there were possibly ones farther south. He indicated that it was possible that eagles were prettying on ducks/geese.
- Natalie asked about the breakdown of cropland v. rangeland. Brian indicated about a 1/3 of the area was grassland with some of that used for hay. The balance principally as cropland.
- The discussion shifted to bats. Casey noted that the project would factor in a 1,000-foot setback from suitable Northern long-eared bat (NLEB) roost areas that have been delineated.
- Natalie asked about the locations of the anabat stations. Brian indicated they were positioned near some suitable habitat, along crop/field edges and near water features.
- Natalie indicated that she was aware of some NLEB that may be present along the Missouri River. The data source was from the South Dakota Game Fish and Parks and was from several years ago. The only known hibernacula in South Dakota for NLEB is found in the Black Hills.
- Natalie asked about whether mist netting would be done. Casey indicated that the approach used was to avoid features pursuant to the USFWS guidance, such that mist netting wasn't warranted given that 4d rule coverage.
- Brian provided an overview of the suitable Whooping Crane stopover features. Widespread in the area given that the area is within the prairie pot hold region, but the density of features increases to the west and north of the area.

- Natalie mentioned that there was the potential for the Whooping Crane migratory data to change based on new data being added to the data set. With the South Dakota data set, it likely makes the corridor wider in the state. Overall, this would only matter for projects that are on the fringe.
- Natalie asked about grassland avoidance. She indicated there was now a method to complete carveouts via the Upper Great Plains PEIS. Casey indicated that Infinity was leaning toward avoiding the grassland easements.
- Casey brought up that one of Infinity's easements was top leased by the USFWS. Natalie suggested following up with Deb Williams from the Refuge Program, but agreed that Infinity's easement would have superior rights.
- Natalie asked about wetland setbacks and suggested ½ mile. Casey noted that if ½ mile setbacks were accounted for the Project could not be constructed. Natalie indicated that there was some data that waterfowl avoided wind projects. Brought up the same suggestion for grasslands and suggested avoidance by 300 meters.
- Suggested looking into offset approaches including,
    - Donating to existing programs. Ducks Unlimited in Bismarck was suggested. They have been collecting donations, acquiring land and donating to the USFWS.
    - Deed restrictions limiting height to not allow for future development.
    - Approaches to restoring grasslands
- Natalie asked if further grouse lek surveys would be conducted. Brian indicated the original focus area would not be resurveyed. Essentially the approach would involve revisiting the prior locations to see if they were still present and to focus on areas not previously surveyed. This would be accomplished through aerial surveys with ground based follow-up.
- Natalie expressed some skepticism with the ability to detect leks from the air.
- Natalie's recommendations overall were
    - Avoid priority grassland and wetland features where possible. Offset if you can't.
    - Address monitoring and shutdown associated with Whooping Crane migration within the BBCS. OK with training onsite personnel, but would prefer dedicated monitors during migratory periods.

MEMO

To: Triple H Wind Project Files
From: Casey Willis
Date: December 13, 2018

Re: Meeting with South Dakota Game, Fish and Parks

An in-person meeting occurred on December 13, 2018 at the South Dakota Game, Fish and Parks (SDGFP) offices in Pierre, South Dakota between Casey Willis with Engie; and Hilary Meyer / Tom Kirschenmann with SDGFP. The following are the high-level points from the meeting.

- Casey noted that he wanted to request the in-person meeting given that Hilary was a recent replacement for Leslie Murphy who left the agency. Casey noted that he had been in contact with Leslie and Silka Kempena in the fall of 2017 and initially reached out to Leslie recently to provide an update. He also mentioned Engie had consulted with Natalie Gates in early 2018.
- Casey provided an overview of the Triple H Wind Project. Noted the 250 MW project size, the intention of filing PUC applications in early 2019 with a target commercial operation date toward the end of 2020.
- The principal purpose of the meeting was to illustrate how Engie had arrived at the locations that would be permitted. Casey utilized the enclosed powerpoint.
- Casey noted that Engie had committed to avoiding the USFWS grassland easements completely. Roughly 75% of the turbines were proposed on cropland, but there was still an additional 25% that are proposed on grasslands that could not be avoided.
- The discussion shifted to mitigation offsets to be evaluated. Tom suggested ways to look at offsetting impacts to grassland that could be in the general vicinity. He suggested the idea of buying out rights to convert cropland to perennial grasslands that could still be grazed, but with some level of grazing management. The intent would be to use this as an offset to the project impacts.
- An option that has been used in South Dakota has been simply to offset the impact by making contributions to ongoing initiatives via NGOs. That could be done, but Tom suggested the above option as something new that could be explored and potentially a cost savings to the project.
- Casey indicated he would take the suggestion back to explore that as an option.
- Tom and Hilary asked for copies of the wildlife survey reports and the powerpoint.
- Suggested reconnecting with Natalie Gates from the USFWS.

ENGIE North America
3760 State Street, Suite 200
Santa Barbara, CA 93105

Triple H Wind Project

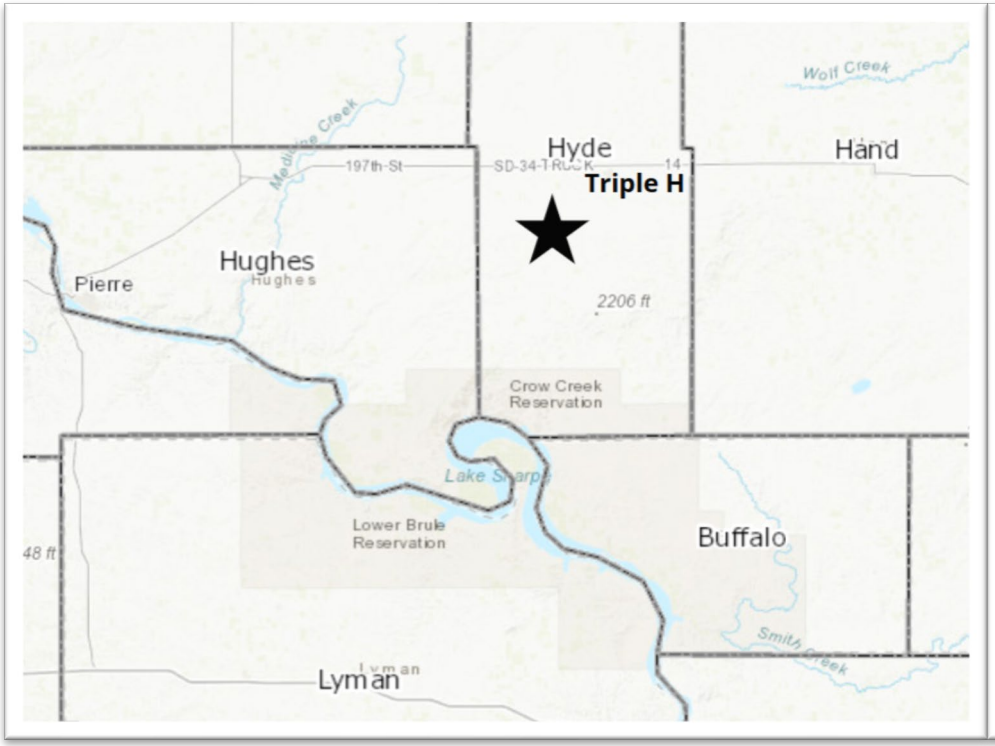
December 13, 2018

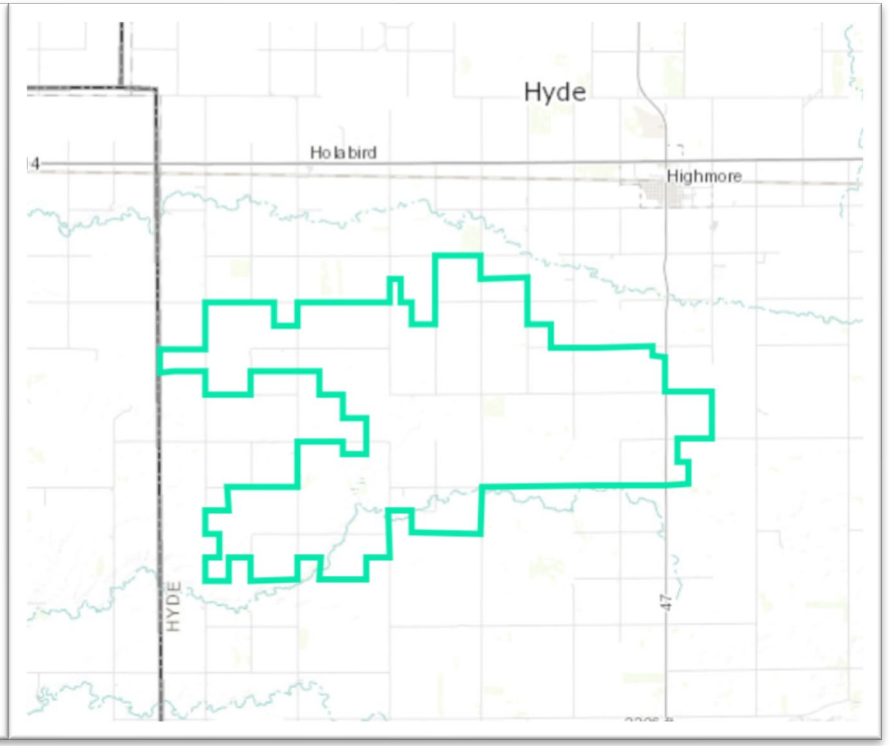
Casey Willis, Senior Project Developer

Triple H Wind Project
Overview

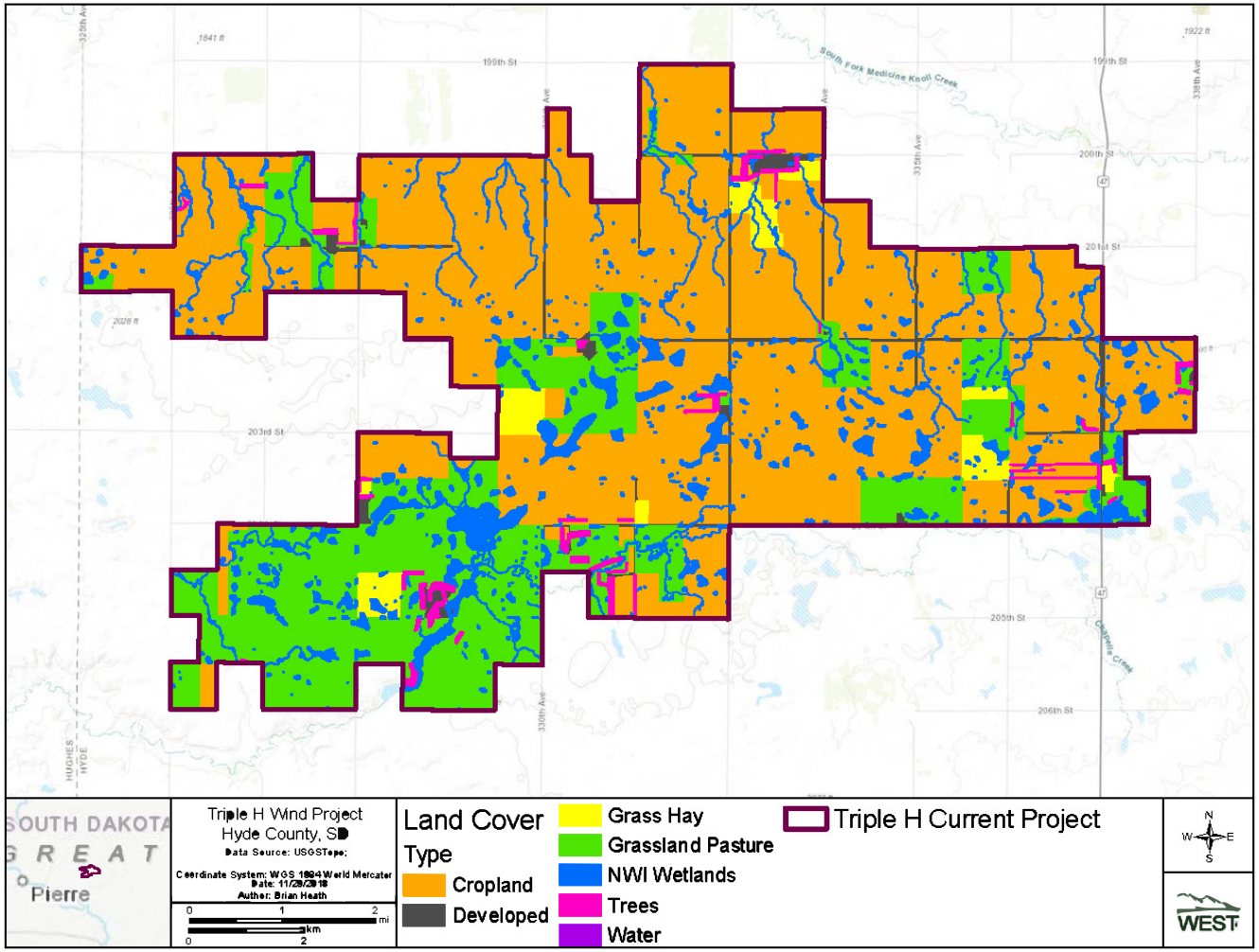
- Project was originated in 2015. Started working with the landowners at this time.
- Contracted with Western Ecosystems Technology (WEST) to commence Tier 3 WEG Surveys.
- Surveys have been completed between 2016 to present.
- Surveys Completed
  - Prairie Grouse Lek Surveys
  - Avian Use Surveys
  - Raptor Nest Surveys
  - Whooping Crane Stopover Habitat Evaluation
  - NLEB Habitat Assessment
  - Bat Acoustic Monitoring

Triple H Wind Project
Regional View

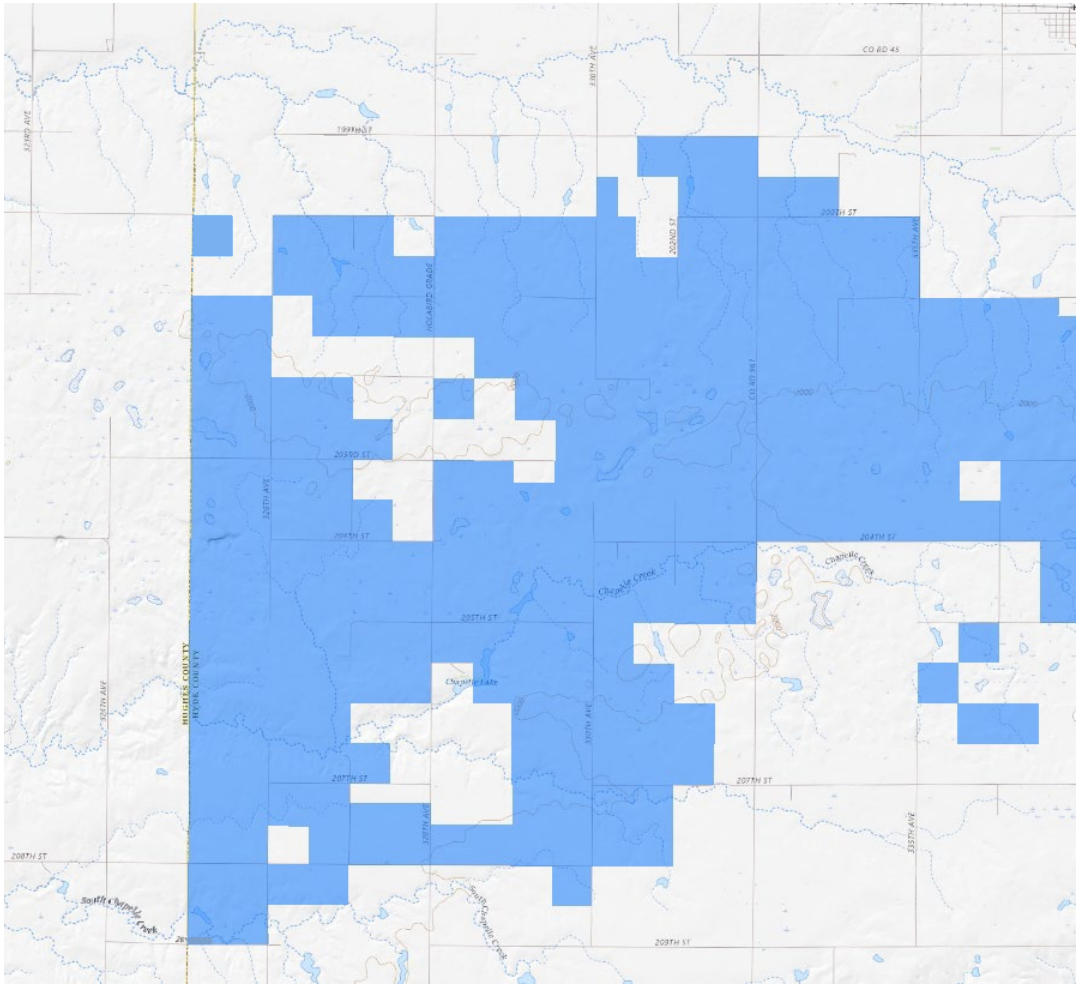




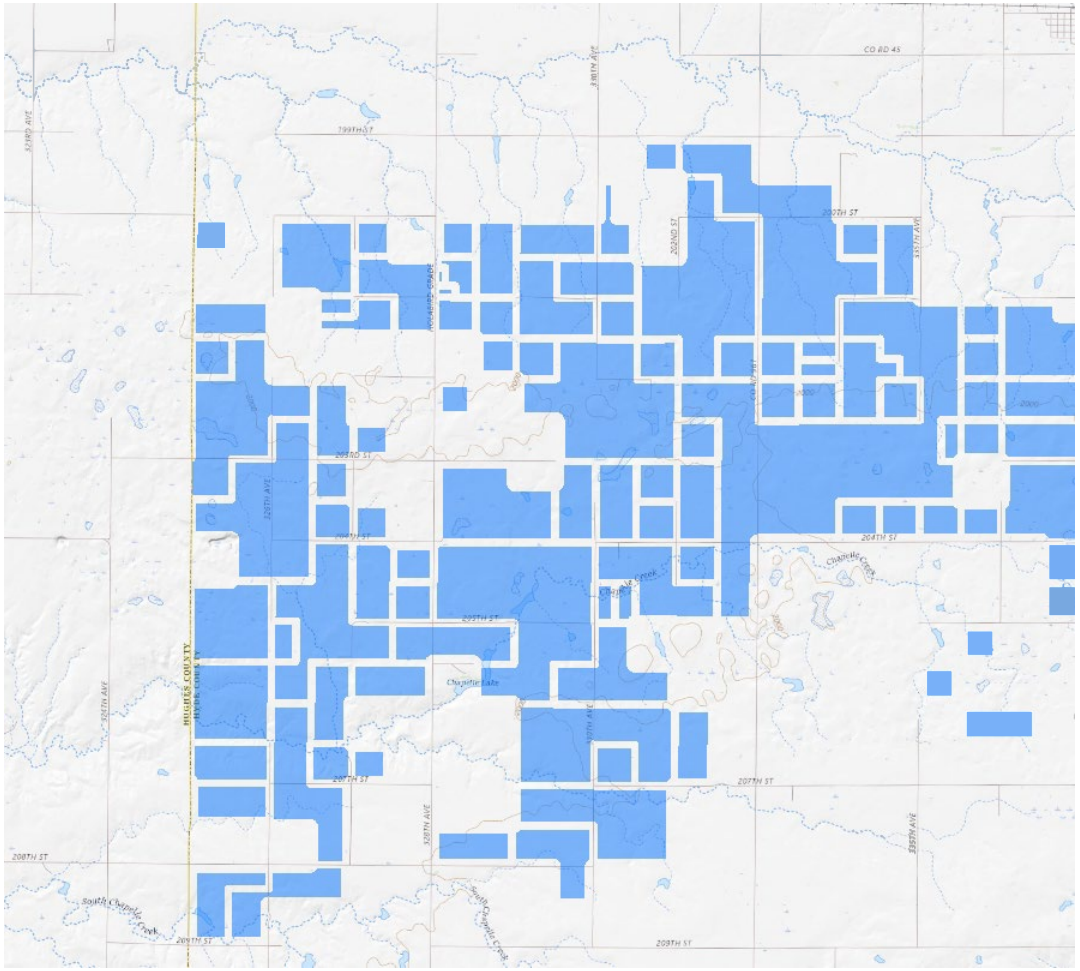
Triple H – Habitat Map



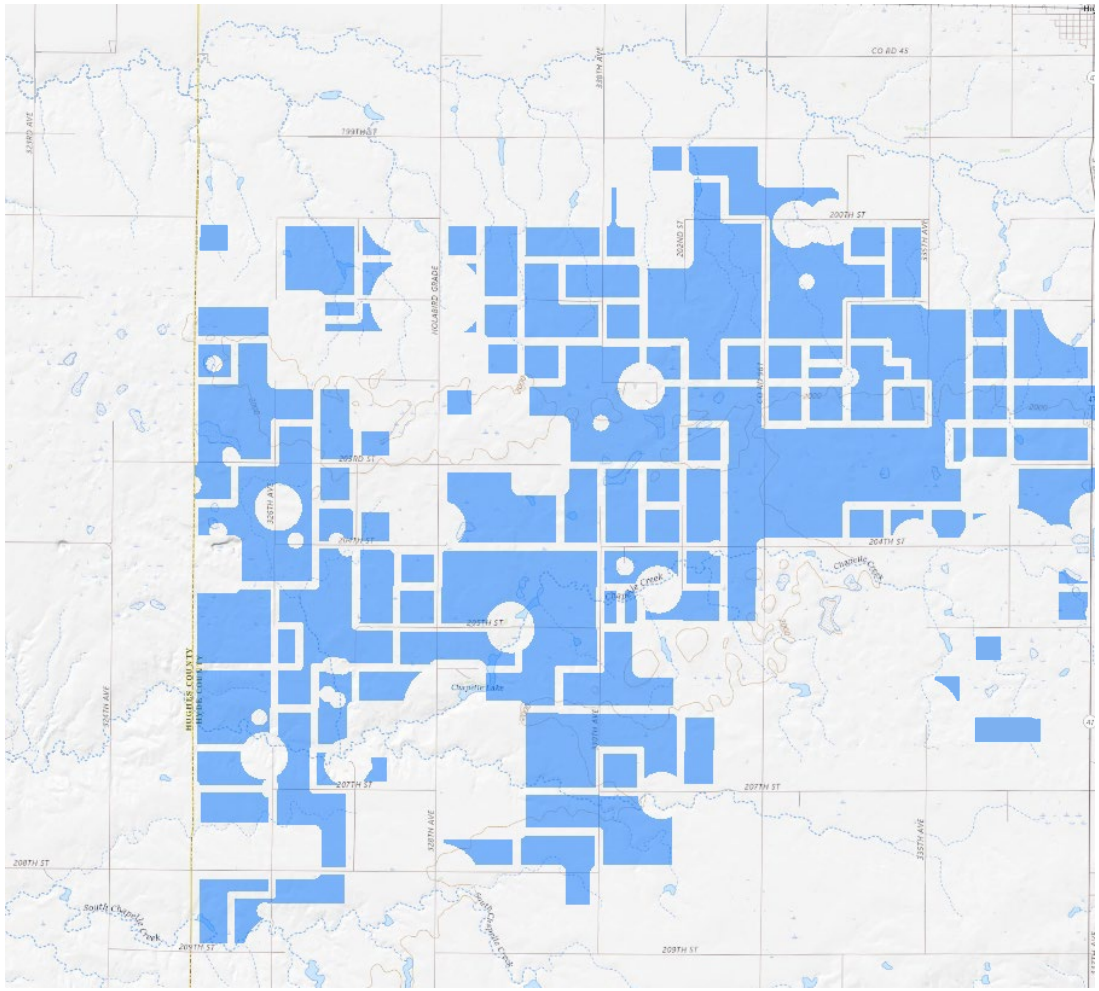
Step 1 – Land Under Easement



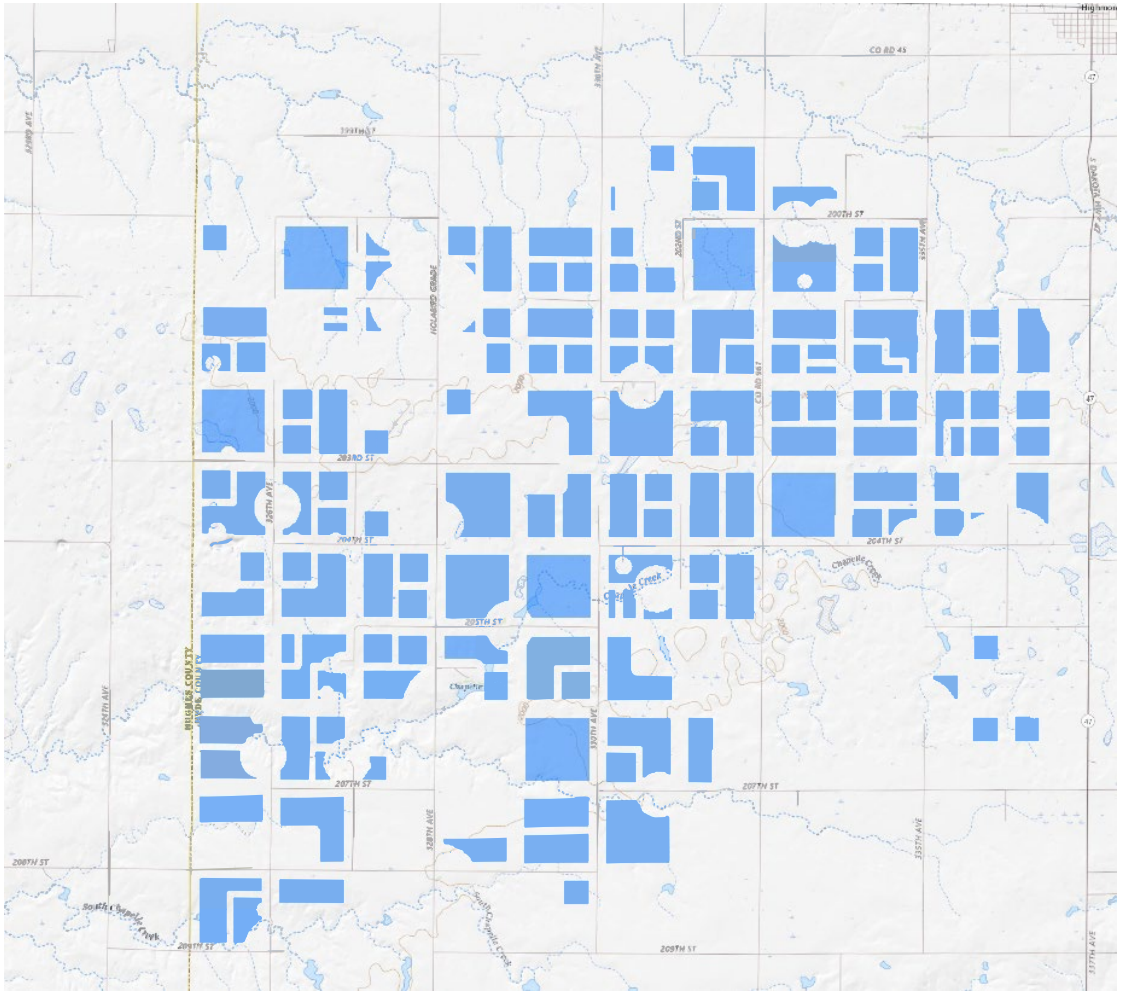
Step 2 – Property Line Setbacks



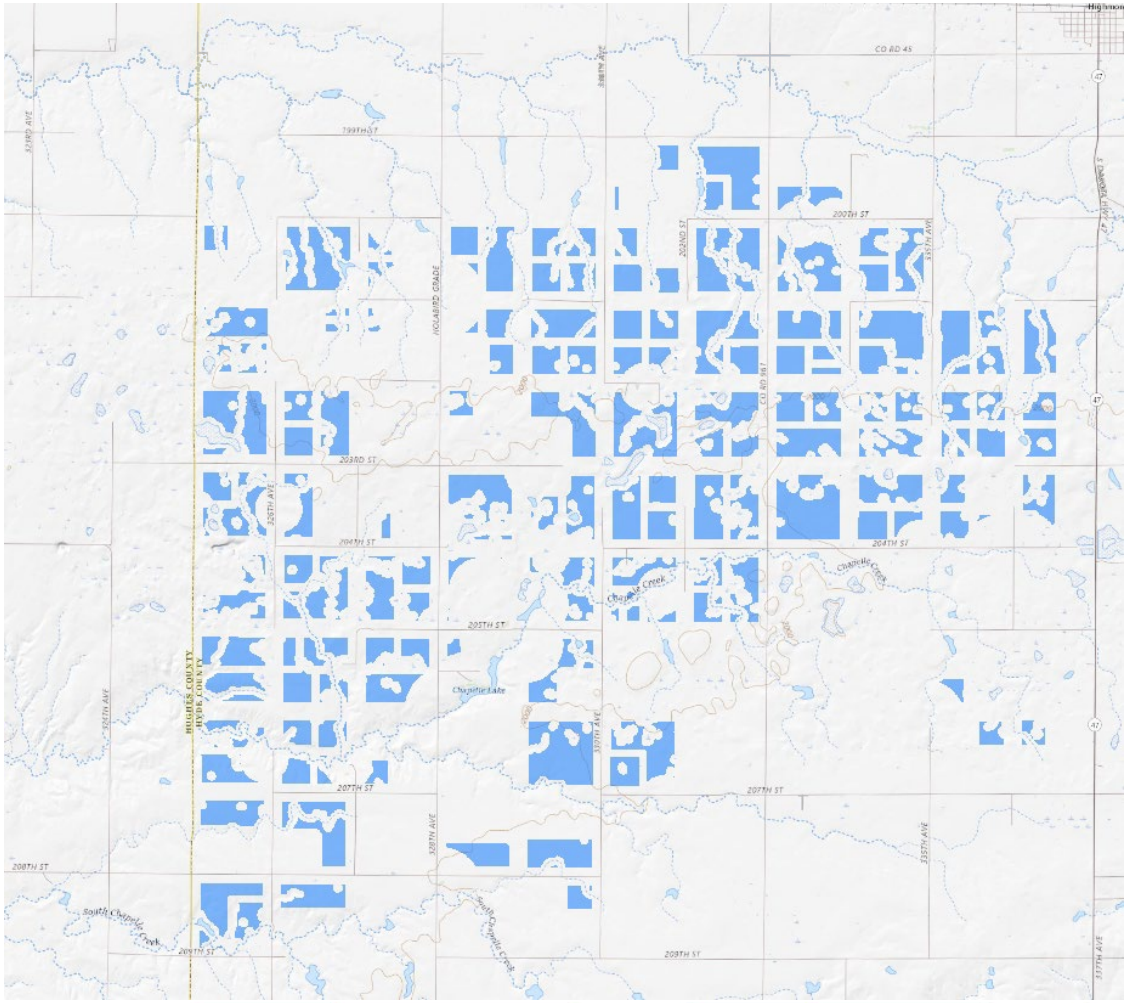
Step 3 – Setbacks from Structures and Residences



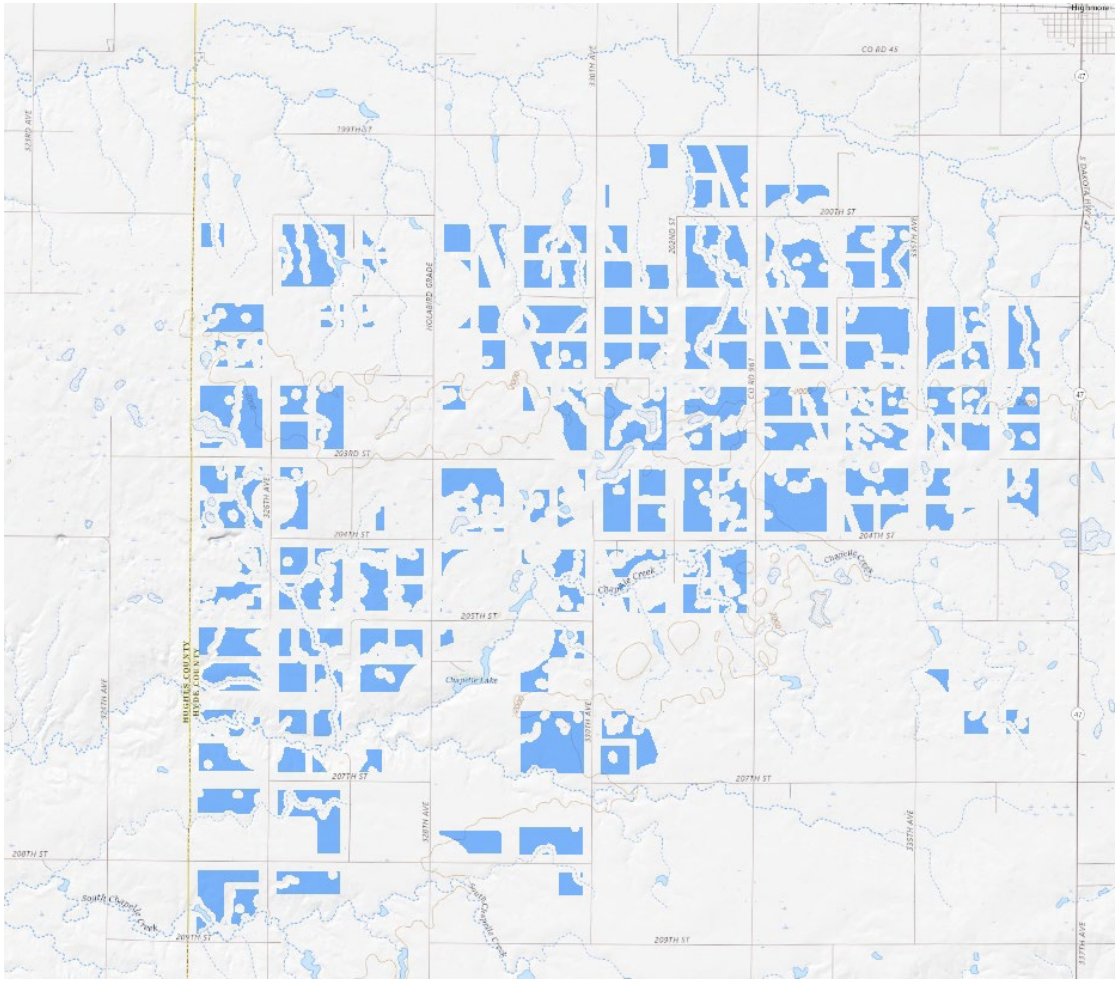
Step 4 – Setbacks from Roads, Highways and Section Lines



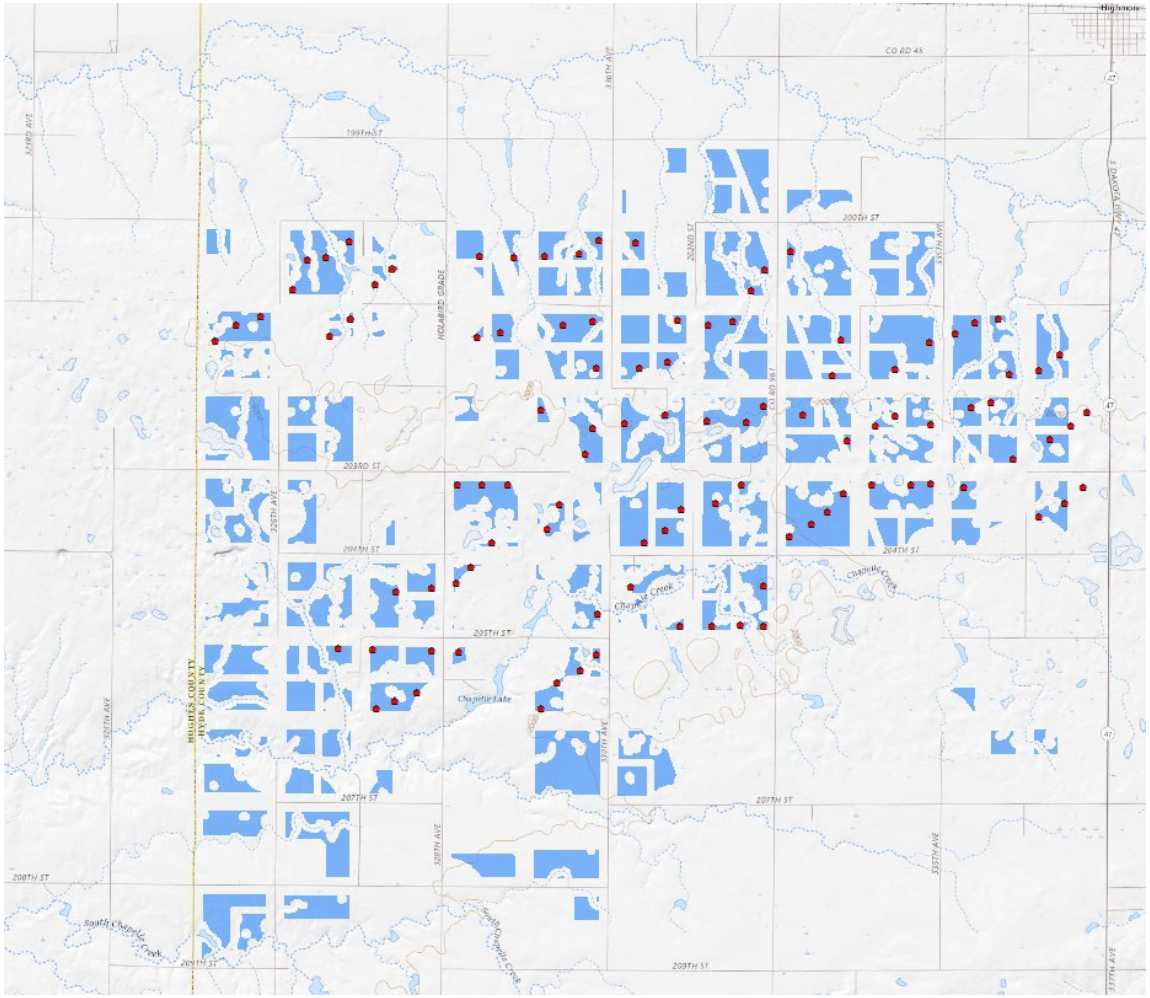
Step 4 – Setbacks from Environmental Constraints



Step 5 – Setbacks from Existing Infrastructure

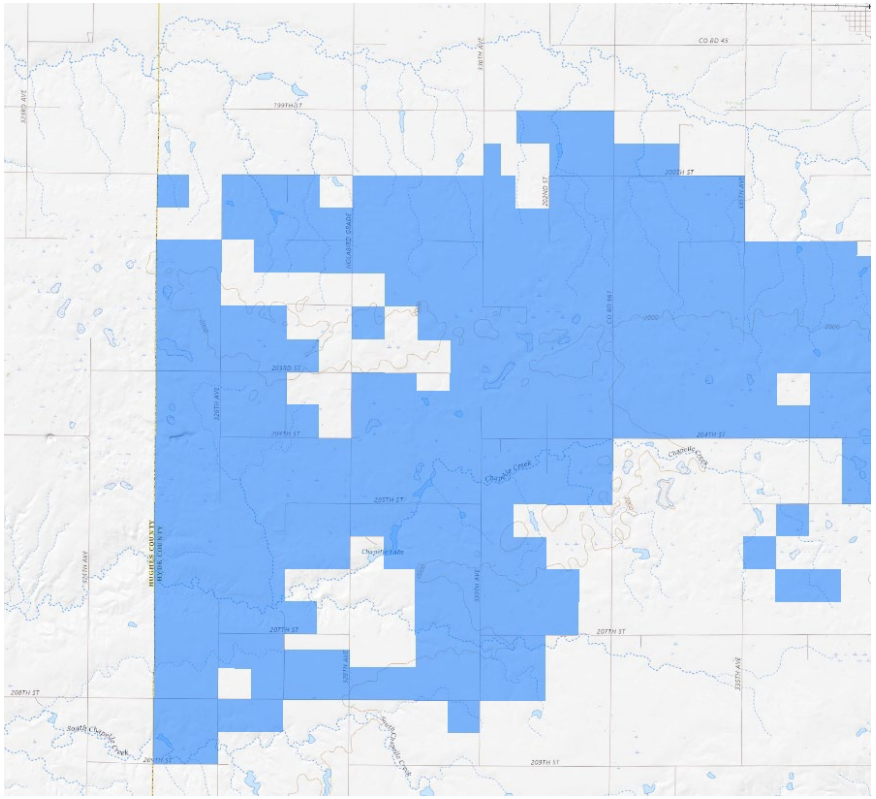


Step 5 – Final Proposed Layout

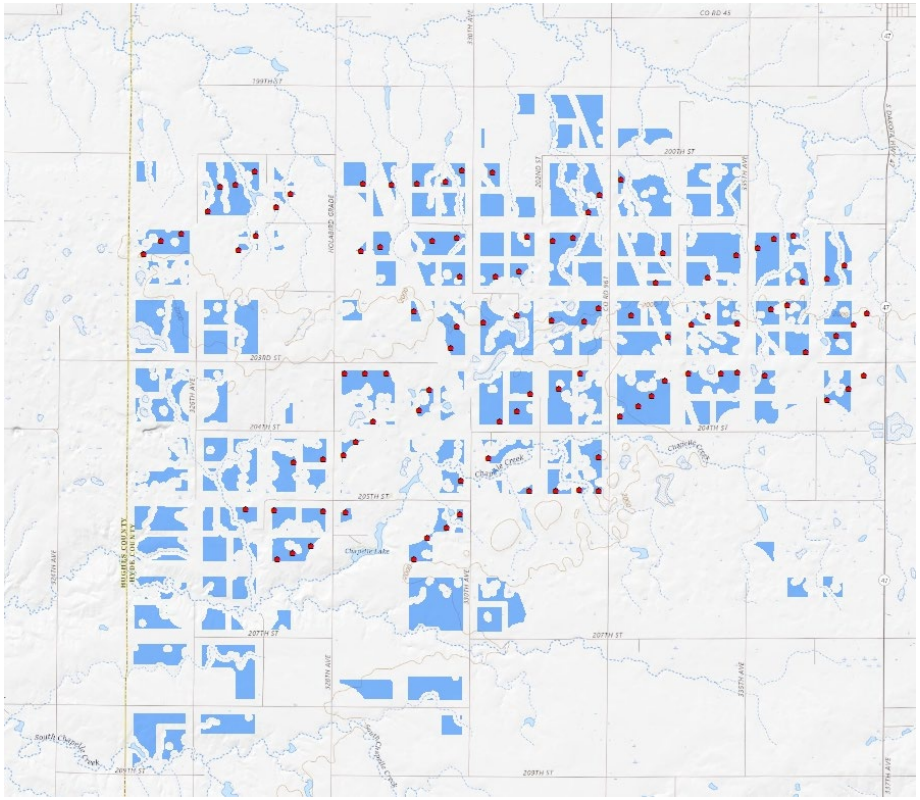


Triple H Wind Project – Final Useable Turbine Area

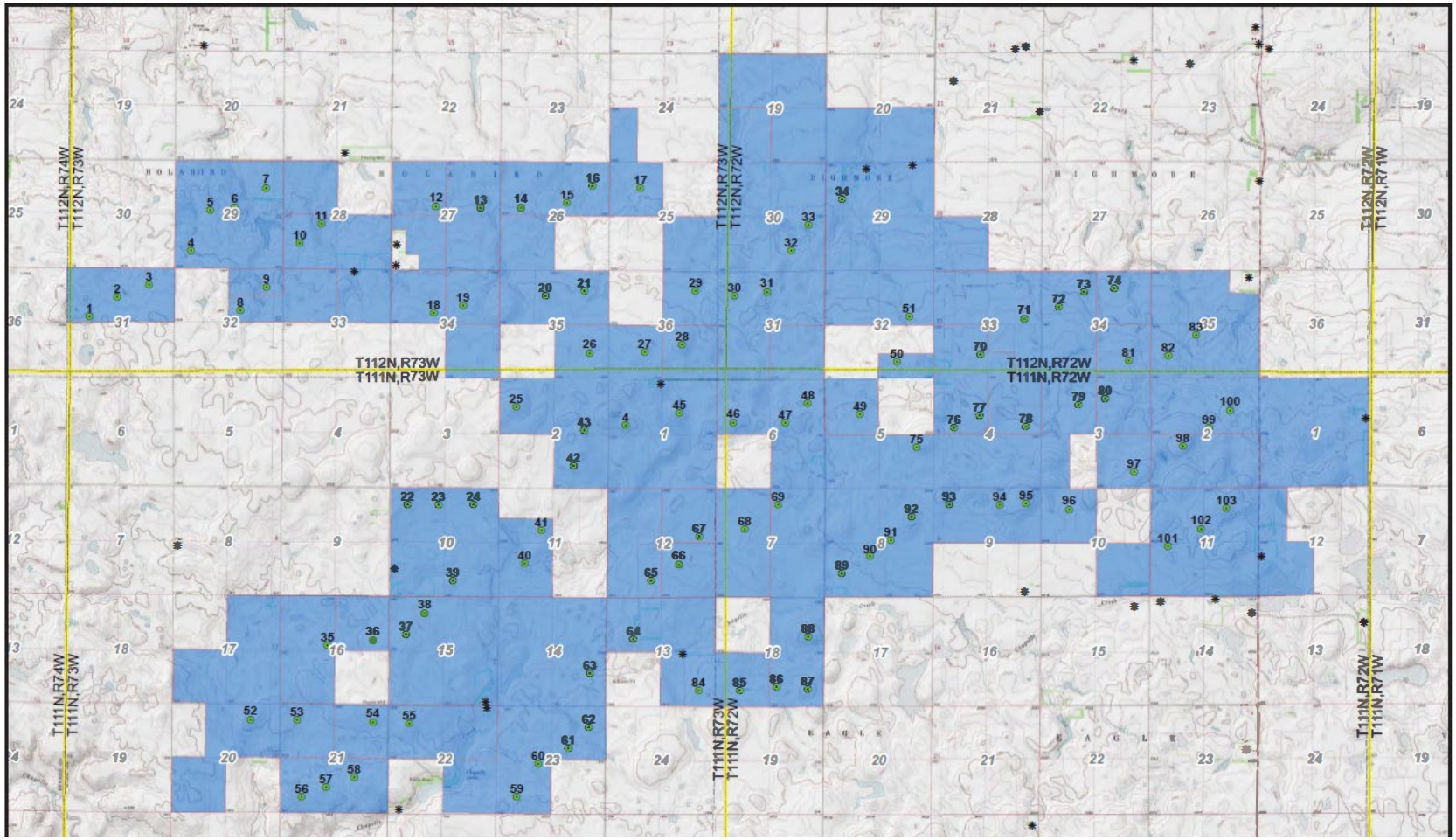
Land Under Easement – 52,812 Acres



Final Useable Turbine Area – 12,408 Acres



Project Map – Proposed Locations for Permitting



Triple H Wind Project
Schedule

- Land work – 2018 (Completed)
- County Zoning Ordinance update -2018 (Completed)
- Conditional Use Permits Filed – December 2018
- PUC Facilities Permit Application – January 2019
- Complete Discretionary Permitting – July 2019
- Civil Construction Work – Fall 2019
- Demobilize – Winter/Spring 2020
- Remobilize to Site – May 1, 2020
- Turbine Deliveries & Install – Summer 2020
- Mechanical Completion – Fall 2020
- Commercial Operation – October 2020