

Williston to Tioga Transmission Project
Basin Electric Power Cooperative
ND PSC Case No. PU-07-671
Keitu Project #569-207

Post-Construction Inspection Report

July 2014



Prepared By:
Keitu Engineers & Consultants, Inc.
1403 27th Street NW
Mandan, ND 58554

Table of Contents

EXECUTIVE SUMMARY	1
INTRODUCTION	2
PURPOSE AND SCOPE OF INSPECTION	2
METHODS.....	2
OBSERVATIONS/FINDINGS OF COMMISSION ORDERS.....	3
ORDER 1	3
ORDER 2.....	3
ORDER 3.....	4
ORDER 4.....	4
ORDER 5.....	4
ORDER 6.....	5
ORDER 7.....	7
ORDER 8.....	7
ORDER 9.....	8
ORDER 10.....	9
ORDER 11.....	9
ORDER 12.....	9
ORDER 13.....	10
ORDER 14.....	10
ORDER 15.....	11
ORDER 16.....	12
ORDER 17.....	12
ORDER 18.....	12
ORDER 19.....	13
ORDER 20.....	13
ORDER 21.....	14
CONCLUSIONS.....	14
APPENDIX A: SITE PHOTOS.....	15
APPENDIX B: FIGURES.....	25

**Basin Electric Power Cooperative
230 kV Transmission Line
(Williams to Mountrail Counties, ND)**

Prepared by Keitu Engineers & Consultants, Inc.

Executive Summary

The State of North Dakota, acting through its North Dakota Public Service Commission (NDPSC), Division of Public Utilities, has contracted Keitu Engineers & Consultants, Inc. (Keitu) to perform consulting services for post-construction siting inspections. This report addresses the Orders established by the NDPSC and issues established in File No. PU-07-671. The Williston to Tioga Transmission Line (Project) is located in Williams and Mountrail Counties, ND. The Transmission line is owned and operated by Basin Electric Power Cooperative (Basin Electric). Construction for the Project began in May 2010 and was completed in July 2011. The purpose of the construction inspection was to ensure the Project was constructed in compliance with the siting laws, rules, and the applicable PSC Order for the Project. Prior to the construction inspection, Keitu reviewed all Project documents to identify any and all aspects requiring site verification.

The site was visually inspected on July 22, 2014 by Keitu staff. Overall, the project was very well-maintained and in good condition. It appeared to be constructed as planned with numerous efforts to minimize impacts. However, there were several non-critical issues that may need to be resolved for the Project to be considered in full compliance. Keitu recommends that the PSC request the following from the company: 1) written documentation of noxious weed surveys to fulfill requirements for Order #14, and 2) report of Tree & Shrub replacement survival monitoring for year 3 to fulfill Order #15. The PSC will need to decide whether these recommendations are necessary to fulfill Project obligations. Keitu expects that the follow-up action taken by Basin Electric to address these particular issues can be corroborated in writing.

Introduction

The construction of the Williston to Tioga Transmission Line (Project) was completed in the summer of 2011. The Project is operated by Basin Electric Power Cooperative (Basin Electric). The Project comprises approximately 61 miles of 230 kV electric transmission line beginning at an existing Williston Substation to the existing Tioga Substation in Williams and Mountrail Counties of North Dakota. The Project is under the jurisdiction of the North Dakota Public Service Commission (PSC), which issued its Findings of Fact, Conclusions of Law, and Order on Case No. PU-07-671 on February 10, 2010, granting a Certificate of Corridor Compatibility No. 111 and Route Permit No. 121 for the Project.

Purpose and Scope of Inspection

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) authorizes the Public Service Commission to determine that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and welfare of the citizens of North Dakota. Construction inspections ensure the Project is constructed in compliance with siting laws, rules, and the applicable Commission Findings of Fact, Conclusions of Law, and Order (Order).

The North Dakota PSC retained Keitu Engineers & Consultants, Inc. (Keitu) to complete a post-construction inspection of the Project. The inspection process included a review of the Application for Corridor Compatibility and Route Permit, Order, and other applicable documents to determine Project-specific siting and construction requirements; a site visit and inspection of facilities; documentation of compliance; and a report summarizing findings. This report includes, but is not limited to, site visit observations, documentation of compliance deficiencies, and a summary of issues that should be addressed for the Project to be considered complete and in full compliance.

Methods

Keitu reviewed North Dakota siting laws and rules, the Application for Certificate of Corridor Compatibility and Route Permit (Application), and the Order for the Project to identify what Project-specific documentation was required for compliance. Keitu then reviewed Project documents in the PSC Online Case Search to identify those siting laws, rules, and Application and Order assertions that already had written verification, those that still required documentation, and those that required physical site verification.

Ryan King, Staff Consultant, and Kolton Jungemann, Engineering Intern, of Keitu visited the Project area on July 22, 2014. The site was visually inspected along portions of the transmission line route by accessing as many points as feasible where road access was available. The

inspection began at the Williston substation in Section 19 of Township 154N, Range 101W in Williams County and followed the line to its north eastern end at the Tioga substation in Section 20 of Township 157N, Range 94W, in Mountrail County. Digital photographs were taken showing typical Project infrastructure and documenting problem areas (Appendix A). Geographic coordinates were recorded at observation points or potential problem areas using a handheld Global Positioning System (GPS) (Trimble GeoExplorer 6000 series). A map showing the location of the observation points is attached as Figure 1 in Appendix B.

Observations/Findings of Commission Orders

The following section includes discussion of a list of components of the Project that were asserted in the Application and Order which could be documented during the post-construction inspection to verify compliance with siting laws, rules and the Order for the Project, via either written documentation or physical site verification. Included are detailed findings and observations from Keitu personnel involved in the post-construction inspection for Basin Electric's Williston to Tioga transmission project.

1. Basin Electric's application for a waiver of procedures and time schedules is granted.

In a September 29, 2009 motion (Docket #12), Jerry Lein moved the Commission to deem the applications complete conditioned on filing of final transmission line structure locations on or before October 20, 2009 and issue a Notice of Filing and Notice of Hearing in the applications of Basin Electric Power Cooperative, Inc. for a waiver of procedures and time schedules, a corridor certificate and a route permit for its proposed Williston-Tioga 230 kV transmission line in Williams and Mountrail Counties, North Dakota, Case No. PU-07-671. Order #1 is complete.

2. Certificate of Corridor Compatibility for a Transmission Facility Corridor No. 111 is issued to Basin Electric, designating a Corridor for its proposed transmission facility as described in Basin Electric's Application and presented at the hearing.

On February 10, 2010 the Commission designated a transmission facility corridor for Basin Electric's approximately 61 miles of 230 kV electric transmission line and associated facilities extending from an existing Williston Substation to the existing Tioga Substation in Williams and Mountrail Counties of North Dakota. The certificate (Docket #45) was issued in accordance with the Order of the Commission dated February 10, 2010 in Case No. PU-07-671 and was subject to the conditions and limitations noted in the order. Order #2 is complete.

- 3. A Route Permit for Transmission Facility No. 121 is issued to Basin Electric granting authority to construct the proposed transmission line as described in the Application and presented at the hearing.**

On February 10, 2010 the Commission designated a transmission facility route for Basin Electric's approximately 61 miles of 230-kilovolt electric transmission line and associated facilities extending from an existing Williston Substation to the existing Tioga Substation in Williams and Mountrail Counties of North Dakota. The certificate (Docket #45) was issued in accordance with the Order of the Commission dated February 10, 2010 in Case No. PU-07-671 and was subject to the conditions and limitations noted in the Order. Order #3 is complete.

- 4. Notwithstanding North Dakota Century Code Section 49-22-03 (3), or any interpretation to the contrary, Basin Electric agrees that in the event Basin Electric desires to construct, within this Certificate of Corridor Compatibility, a new transmission facility that is not included in this Order, Basin Electric shall apply for a Route Permit in the Corridor identified in this Order.**

A visual review of the Project area on July 22, 2014 did not indicate any construction related to a new transmission facility not included in this Order. Order #4 has been followed to date.

- 5. Basin Electric shall conduct a preconstruction conference prior to commencement of any construction, which must include a Basin Electric representative, its construction supervisor, and a representative of Commission staff to ensure that Basin Electric fully understands the conditions set forth in this Order.**

A preconstruction meeting was held to ensure Basin Electric understand the conditions set forth in the Order.

The preconstruction conference (Docket #50) was held on March 23, 2010. In attendance was Jerry Lein, Staff Engineer, representing the ND PSC, as well as representatives from Basin Electric, Great Southwestern Construction, Inc, MYR Group, and Dietzel Enterprises.

The conference included a review of the conditions in the Order in detail. The Tree and Shrub mitigation specifications were also addressed. In addition to the conditions of the order, Basin Electric must abide by the conditions of any other permits or approvals, including the Western Area Power Administration (WAPA) Environmental Assessment and Findings of No Significant Impact (FONSI). Basin Electric provided weekly reports detailing construction activities. Order #5 is complete.

- 6. Basin Electric will comply with the rules and regulations of all other agencies having jurisdiction over any phase of the proposed transmission facility. Prior to commencing construction of any phase of the proposed project, Basin Electric shall obtain all other necessary approvals and permits for construction of such phase and provide copies to the Commission prior to the construction of each such phase.**

State and Federal agencies are entitled to notice of Basin Electric's Siting Application. According to the notification lists in the Application (Docket #6) and Environmental Assessment (EA) prepared by WAPA (Docket #51), six federal agencies, fourteen state agencies, six elected officials, ten county officials, two city administrators, three organizations, and twenty tribal officials were notified of the Project.

The application identified the following state and federal agencies with regulatory concerns or responses: US Army Corp of Engineers (USACE), US Fish and Wildlife Service (USFWS), National Resource Conservation Service (NRCS), North Dakota Department of Health (NDDOH), North Dakota Parks & Recreation Department, Federal Aviation Administration (FAA), North Dakota Game and Fish Department (NDGFD), North Dakota State Land Department, North Dakota Department of Transportation (NDDOT), and North Dakota State Historic Preservation Office (SHPO). The application had copies of the responses from these agencies.

The USACE had no comments.

The USFWS, expressed an interest in whooping cranes, bird electrocution and wetlands. Basin Electric performed additional studies and analysis before selecting a proposed route. The general study process included, but was not limited to: (1) selection and general evaluation of the study area, (2) a Class I Archeological/Cultural records search, (3) agency consultations, (4) collection and evaluation of criteria data, (5) Class III pedestrian survey, and (6) Wetland Surveys. Bird collisions are not a factor during construction but can be a problem with transmission lines. The substations were not a factor in the bird collision issue. Basin Electric addressed the US Fish and Wildlife issues. The USFWS also recommended construction in or near wetlands be deferred until after July 15 as not to disrupt waterfowl or other wildlife during nesting season. Basin Electric started construction on or about May 10th and avoided impacts to wetlands by placing transmission line structures outside wetland areas.

The NRCS requested more information about the project but had no comments.

The NDDOH believed that the environmental impacts from the proposed construction would be minor and could be controlled with proper construction methods. With respect to construction, they commented that all necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective matter. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise

effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours. The NDDOH also stated that all projects will be designed and implemented to restrict the losses or disturbances of soil, vegetation cover, and pollutants (chemical or biological) from a site and gave minimum requirements to avoid environmental degradation.

Temporary noise impacts resulted from construction activities, most likely consisting of annoyances such as equipment back-up warning devices and diesel engine operations. Temporary construction noise was limited to no more than a few days at any particular location and was mitigated by scheduling work to daylight hours, particularly near sensitive receptors.

The North Dakota Parks and Recreation Department compiled a list of the plant and animal species of concern and significant ecological communities within the project area for Basin Electric to avoid.

The NDGFD's concern was the possible disturbance of native prairie, riparian corridors, and wetland areas associated with construction of the steel H-frame structures. They asked that work within these areas be avoided to the extent possible, above ground appurtenances not be placed in wetland areas, and disturbed areas be reclaimed to pre-project conditions.

The FAA had no comments.

The North Dakota State Land Department had concerns about an initial proposed route crossing school trust land. They suggested Basin Electric parallel the Highway 2 right of way line.

The NDDOT asked that all efforts be made to locate the transmission line off of the DOT right-of-way in a longitudinal installation.

The North Dakota State Historic Preservation Office had no comments.

Other agencies had an opportunity to mandate any requirements to be followed by their agency but did not respond. None of the agencies had any objection to the Basin Electric Project.

Basin Electric, in the Application, provided a list of permits, consultations, and approvals required from various federal and state agencies, which include:

- North Dakota Public Service Commission – Certificate of Corridor Compatibility and Route Permit;
- Western – System Interconnection Authorization, compliance with the National Environmental Policy Act and Native American Consultation; -
- USFWS – Compliance with the ESA (Section 7 consultation), compliance with the Migratory Bird Treaty Act;
- State of North Dakota Historic Preservation Office – Compliance with the National Historic Preservation Act (Section 106 consultation);

- Federal Aviation Administration – Aeronautical study with a determination of hazards and requirements for painting and/or lighting;
- Federal Communications Commission – Agency may require registration and lighting of tower less than 200 feet tall;
- North Dakota Department of Transportation – Permit to construct and operate a transmission line across or within ROWs;
- Burlington Northern–Santa Fe Railroad – Authorization to construct and operate a transmission line across railroad ROWs;
- NDGFD – Consultation to identify any state-listed species of concern that could potentially be affected by the proposed project; - Docket #8
- Williams County – Acquire Zoning Permit.

Basin Electric contacted all affected road authorities and the railroad to be crossed. The NDDOT issued road crossing permits for US 2, ND 6, ND 7, ND 8B, ND 9, ND 11, ND 15, ND 19, ND 21, ND 23, and ND 42. WAPA issued a Finding of No significant Impact (FONSI). Order #6 is complete.

- 7. Basin Electric shall inform the Commission of their intent to start construction on the transmission facility prior to the commencement of construction, and, once construction has started, Basin Electric shall keep the Commission updated of construction activities on a weekly basis.**

Basin Electric informed the Commission of their intent to start on or about May 10, 2010 (Docket #51) prior to the commencement of construction. Once construction started, Basin Electric submitted Weekly Progress reports of construction to the Commission. One weekly progress report, the week ending 11-06-2010, is missing with no explanation. It is at the discretion of the Commission to decide whether or not to request this additional documentation. In Keitu's opinion, Order #7 is complete.

- 8. Basin Electric shall construct and operate the transmission facility in the manner described in its Application and at the hearing, and in accordance with all applicable safety requirements.**

Basin Electric constructed the transmission line in accordance with the application and NESC standards. The proposed Plan & Profile Drawings for the Project matched as built drawings with the exception of the changes approved by Commission staff during the construction phase of the project. Based on transmission drawings, plan and profile drawings, and site inspection the transmission line was constructed as proposed to the Commission.

Based on WAPA allowing the connection of the transmission line and collection substation to their system, the construction and operation of the facilities are in accordance with all safety requirements. Order #8 is complete.

9. Basin Electric shall promptly report to the Commission the presence in the permit area of any critical habitat of threatened or endangered species, or of bald or golden eagles that Basin Electric becomes aware of and were not previously reported to the Commission.

Due to the interconnection application required for this project, it triggered a National Environmental Policy Act (NEPA) review process of the project (Docket #51). WAPA was the lead agency for consultations.

During construction the power lines are not energized. Therefore, electrocution of birds is not an issue during construction. Electrocution of birds by power lines is a concern mostly for raptor species, such as bald and golden eagles and red-tailed hawks. Birds are electrocuted when they come in contact with more than one conductor wire at once. This can occur on smaller lines that have short distances between conductors (Olendorff et al. 1981 and Avian Power Line Interaction Committee 1996). The proposed facility has sufficient distance between conductors to make electrocution very unlikely once they are energized.

Impacts from construction included the displacement of wildlife near the project site and direct mortality of some individuals. Larger or more mobile wildlife, such as birds and large mammals, likely left the project area during construction and relocate to similar habitats nearby. Some smaller, less mobile wildlife, such as small mammals, reptiles, and amphibians could have been crushed by construction equipment or trapped in construction areas. These effects, however, would be minimal and wildlife could return to the adjacent, undisturbed habitats after construction is completed.

A review of the weekly construction progress reports (Docket #'s 52-56, 59-64, 67, 70-88, 91-97) did not note any critical habitat in the area during construction. No report of any critical habitat of threatened or endangered species, or of bald or golden eagle's notification to the Commission was found in Case File No. PU-07-671. Order #9 is complete.

10. If any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, earth disturbing activities in the immediate vicinity of the discovery must be halted. The resource must be marked, preserved and protected from further disturbances until a professional examination can be made and consultation with the State Historical Preservation Office. A report of such examination must be filed with the Commission, and clearance to proceed must be given by the Commission.

A Class I files and records search, and also a Class III pedestrian survey of the entire proposed route for archeological and cultural resources was done by Metcalf Archeological Consultants, Inc (Metcalf). These surveys supported a finding of “no historic properties effected” and was recommended by Metcalf (Docket #20). The WAPA Environmental Assessment (Docket #51) supported a finding of no significance.

No cultural resource, paleontological site, archeological site, historical site, or grave site was discovered during construction. This is based on review of weekly construction progress reports and verification that no correspondence was identified in the Commission’s file. Order #10 is complete.

11. All pre-existing roads and lanes used during construction must be restored to a condition that will accommodate their previous use and areas used as temporary roads during construction must be restored to their original condition.

Existing roads and trails were to be left in a comparable or better condition than what existed before construction.

During the site visit on July 22, 2014, no access roads to transmission line poles were noted. No existing roads were noted to be in unfavorable condition.

The transmission line crossed US 2, ND 6, ND 7, ND 8B, ND 9, ND 11, ND 15, ND 19, ND 21, ND 23, and ND 42. Crossing permits were obtained for these crossings (Docket #48). Order #11 is complete.

12. Construction must be suspended when weather conditions are such that construction activities will cause irreparable damage, unless adequate protection measures approved by the Commission are taken.

Based on review of the progress reports, construction was suspended or delayed when weather conditions were such that construction should not occur. Order #12 was followed.

13. Reclamation along the right-of-way shall be continuous and coordinated with construction.

Debris associated with the transmission line construction can be packaging material, insulator crates, conductor reels, and wrapping. It may also include excess excavated soil and removed vegetation. Excess soil and vegetation was distributed along the transmission right-of-way. The application stated that it would not be placed in wetlands or other aquatic resources. During construction solid wastes were temporarily stored within the right-of-way or within the temporary construction easements, and then hauled away to appropriate disposal facilities by the private construction contractors.

Transmission structure site clearing was accomplished using mowers, to the extent feasible. The project area and locations along the proposed route are relatively flat; the need for structure site leveling was minimal. It was anticipated that at some structure locations, blading of small areas (up to 12 by 25 feet for crane and man-lift landings) may be required to level the ground surface to allow the safe operation of the equipment.

According to the Application, during construction three temporary material staging and equipment laydown areas, each averaging approximately 4 acres, were used. Appropriate biological and cultural resource surveys were conducted before grading any temporary material staging and equipment laydown areas. Staging areas were re-graded and re-vegetated when work in the area was complete and the staging area is no longer needed.

Limited ground disturbance at the structure sites occurred during construction. Disturbed areas were restored to their original condition to the maximum extent practicable.

In the weekly progress report for week ending July 2, 2011 (Docket #97), it is noted that R/W restoration is complete. The three work pads were dressed that week and material yards #1 and 2 were being reseeded.

Clean up of the transmission line and substation construction sites, including removing and disposing of debris occurred. All temporary facilities were removed, and the staging and laydown areas were cleaned up. Order #13 is complete.

14. Reclamation, fertilization and reseeding is to be done by Basin Electric according to the Natural Resource Conservation Service recommendations unless otherwise specified by the landowner and approved by the Commission.

Construction activities disturbed soils and vegetation to an extent that would require some reseeding following completion of operations. The ground was re-graded to the approximate original contour and re-vegetated (rangeland) or tilled (cropland) when the work was completed. Soils were smoothed to the natural contours of the surrounding areas. Reseeding with native perennial species compatible with the surrounding vegetation occurred. If surface disturbance did

not significantly impact nearby vegetation, plants regenerated or sprouted from onsite existing propagates.

According to the Application, monitoring of re-vegetated areas would be completed for 2 years following construction to evaluate revegetation success and 3 years to identify any noxious weed populations. No documentation in the project folders was found supporting this.

Documentation of re-vegetation surveys and noxious weed surveys will be required for Order #14 to be complete.

15. Basin Electric will comply with the Commission's Tree and Shrub Mitigation Specifications attached to this Order except that the width of clear cuts through windbreaks, shelterbelts and all other wooded areas shall be limited to 125 feet rather than 50 feet.

According to the Tree and Shrub Replacement Plan (Docket #90), approximately 273 trees and 77 shrubs were removed during the construction of the transmission line. Both trees and shrubs were required to be replaced on a two for one basis. This required 546 trees and 154 shrubs be planted. Impacted landowners were contacted by mail and given the choice of having replacement trees or shrubs planted off the right-of-way on their property or waiving the replanting in writing and allowing those replacement trees or shrubs to be planted in an alternate location. Six landowners had fairly large plantings that were machine-planted by the NRCS, amounting to approximately 862 trees and shrubs. An additional 56 trees went to five landowners for hand-planting in their yards. Finally, a total of approximately 164 trees and shrubs were provided to the communities of Tioga and Ray.

While 700 trees and shrubs were required for replanting, Basin Electric chose to plant more than 1,000 trees and shrubs. The trees and shrubs were scheduled to be planted during the spring of 2011. Due to extremely wet conditions during the 2011 planting season, some plantings were not completed until 2012 and again in 2013 where survival rates were poor.

On November 30, 2012 Kevin Solie sent a letter (Docket #105) with a tree and shrub mitigation update. Plantings were inspected in 2012 by the NRCS and survival rates were generally very good, estimated at 95% or above; however, one planting, consisting of about 229 trees and shrubs, had complete mortality (0% survival) and was replanted. The individual hand-planted trees and shrubs as well as those planted in the communities of Tioga and Ray estimated to have relatively high survival rates (95% or greater). On September 30, 2013, Kevin Solie sent another letter explaining a subsequent inspection during 2013 that found that survival rates were similar to those observed during the 2012 inspection.

The Order specified that Basin Electric shall inspect tree replacement once a year for three years and send a report to the Commission. The Commission only has two years of reports. An

inspection should be conducted in 2014 and submitted to the Commission before the completion of Order #15 can occur.

16. Basin Electric's obligation for reclamation and maintenance of the right-of-way shall continue throughout the life of the transmission facilities.

Regular maintenance and inspections are performed during the life of the facility to ensure its continued integrity. Inspections are limited to the right-of-way. When problems are found, repairs will be scheduled. If damages to crops occurred during maintenance and repairs, reimbursement is made to the landowner, consistent with the terms of the easement. The collection substation is graveled and fenced. Basin Electric conducts substation inspections and service orders are established if maintenance is required.

Based on a post construction inspection, Basin Electric has performed reclamation and maintenance of the right-of way has continued since the facilities have been energized. Order #16 has been followed to date.

17. Basin Electric shall work with landowners and residents to mitigate any increase in television and residential radio interference that results from the transmission system.

According to the Application, mitigation measures also would be implemented to reduce potential television and radio interference caused by transmission line operations. Care would be taken to avoid damage to conductors and ensure that conductor hardware is properly installed and secure to reduce the possibility of corona effect. Mitigation measures to address television and radio interference would be addressed on an as-needed basis; those associated with reducing potential corona effect would be part of transmission line construction.

No record of television or residential radio interference was found in the Commission's file. Order #17 is complete.

18. Basin Electric shall repair or replace all fences and gates removed or damaged during all phases of construction and operation of the proposed transmission facilities.

Gates were installed where fences cross the ROW. Locks were installed at the landowner's request. Gates not in use were closed but not locked, unless requested by the landowner.

Initially, Basin Electric sent out a land agent (landman) to discuss the proposed project and obtain permission to obtain access to a landowner's property for preliminary surveys of the proposed route and corridor. Once a proposed route is identified, the land agent obtains an easement to construct a facility. After the easement is signed along with other proper paperwork and resources are in place, construction can begin. Part of the proper paperwork and resources

are mitigation measures to reduce adverse impact. Once construction is complete, the land agent meets with the landowners to identify any damages or concerns that they may have and for Basin Electric to repair the damages or compensate for these damages to maintain good landowner relationships. Most easement have a damage clause for damage mitigation measures.

General mitigation measures of Basin Electric were part of the Application for the Route Permit. This is also an item that help reduce damage measures.

Based on the fact that no landowner complaint documentation was found in Case File No. PU-07-671, Order #18 is complete.

19. Structure location changes filed January 8, 2010 and February 5, 2010 are approved and Basin Electric shall obtain approval from the Commission or from Commission staff prior to any further changes in structure locations.

On June 11, 2010 Kevin Solie of Basin Electric sent an email to Jerry Lein of the Commission requesting the relocating of two structure locations. On June 15, 2010 the Commission staff approved the request to move the two structures (Dockets #57, 58). Originally, structure #73 was located 18 feet from the edge of a pipeline ROW. Basin Electric is required to be 25 feet away. The new structure was placed 31 feet from the edge of the pipeline ROW. Structure #87 was originally staked 12 feet south of an E-W line and was moved and additional 19 feet to the south to provide adequate clearance (31 feet total, while 25 feet is required).

On July 26, 2010 Kevin Solie of Basin Electric sent an email to Jerry Lein of the Commission requesting the relocating of 10 structure locations. On August 02, 2010 the Commission staff approved the request to move 10 structures (Docket #68). Structures 87, and 88 were moved 19 and 25 feet south on account of an oil pipeline easement. Structures 101-105 were moved 100, 40, 40, 10, and 10 feet west due to a found cultural resource. Structures 271-273 were moved 10, 23, and 24 feet north and northwest due to a water pipeline easement and a buried fiber easement.

On August 05, 2010 Kevin Solie of Basin Electric sent an email to Jerry Lein of the Commission requesting the relocating of two structure locations. On August 12, 2010 the Commission staff approved the request to move the two structures (Docket #69). Structure 289 was moved 30 feet back on tangent because of an underground gas pipeline. Structure 290 was moved 10 feet back as a result of structure 289 moving.

Basin Electric obtained approval from the Commission or Commission staff prior to any changes in structure locations. Order #19 is completed.

20. Basin Electric shall provide the Commission with a copy of the facility alignment plan and profile drawings showing the facility as built (hard copy and electronic versions),

and an electronic version of the as-built facility that can be imported into ESRI GIS mapping software, within three months of the completion of the construction.

On October 20, 2009, Basin Electric provided the Commission with a copy of the plan and profile drawings for the proposed Williston to Tioga transmission line (Docket #19). Basin Electric also provided drawings showing the facility as-built (hard copy and electronic versions) and an electronic version (capable of being imported into ESRI GIS mapping software) of the as-built transmission line. Order #20 is completed.

21. The authorizations granted by the Corridor Certificate and Route Permit are subject to modification by order of the Commission if deemed necessary to further protect the public or the environment.

Should the Commission deem necessary in the future to modify the corridor certificate and route permit it can do so if deemed necessary to further protect the public or the environment. No other information was found in the case file to deem that the Commission should modify the Certificate of Corridor Compatibility (Number 111) and Route Permit (Number 121). Order #21 is complete.

Conclusions

Overall, the Project appeared to be constructed as designed with minimal impacts to the surrounding natural and human environment. The Project site was in good condition and well maintained. Keitu recommends that the PSC request the following from the company: 1) written documentation of noxious weed surveys to fulfill requirements for Order #14, and 2) report of Tree & Shrub replacement survival monitoring for year 3 to fulfill Order #15. The PSC will need to decide whether these recommendations are necessary to fulfill Project obligations. Keitu expects follow-up action taken by Basin Electric to address these particular issues can be corroborated in writing.

The project has been constructed in compliance with the siting laws and rules and applicable Commission orders with exception of the items noted within the body of the report. I declare that, I have the specific qualifications based on education, training, and experience to assess a project of this nature.

Sincerely,

Nathan J. Gaffrey, PE
Project Engineer

Appendix A: Site Photos



Photo 1 - Direction: Southeast – Williston Substation



Photo 2 - Direction: East – Williston Substation



Photo 3 - Direction: South - Entrance to Williston Substation. Small clearance below gate could allow wildlife in.



Photo 4 - Direction: East - Showing weeds on North side of Williston substation.



Photo 5 - Direction: Southwest – Williston Substation where transmission line enters



Photo 6 - Direction: North - Shows weeds along east fence



Photo 7 – Direction: West - Transmission line exiting Williston Substation



Photo 8 - Showing base of structure.



Photo 9 - Showing foundation and base of an angle structure



Photo 10 - Typical marker display



Photo 11 – Direction: East – Showing reclamation along transmission line



Photo 12 – Direction: East – Showing structures in section line to reduce crop loss



Photo 13 - Direction: South – Showing crossing of Highway 2 near Ray, ND



Photo 14 - Direction: North – Highway 2 crossing near Tioga, ND



Photo 15 – Direction: Southeast - Angle structure near Tioga. Notice apparent lean.



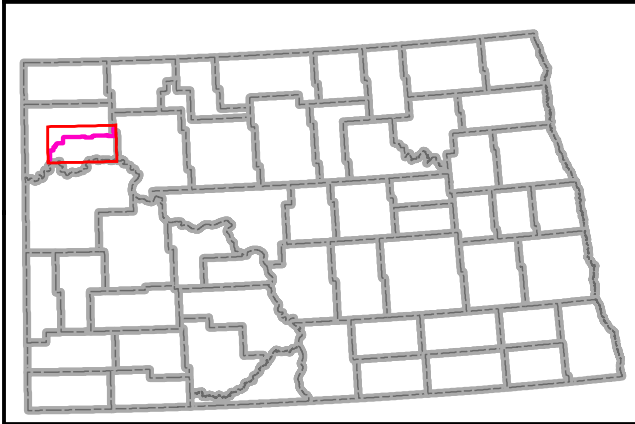
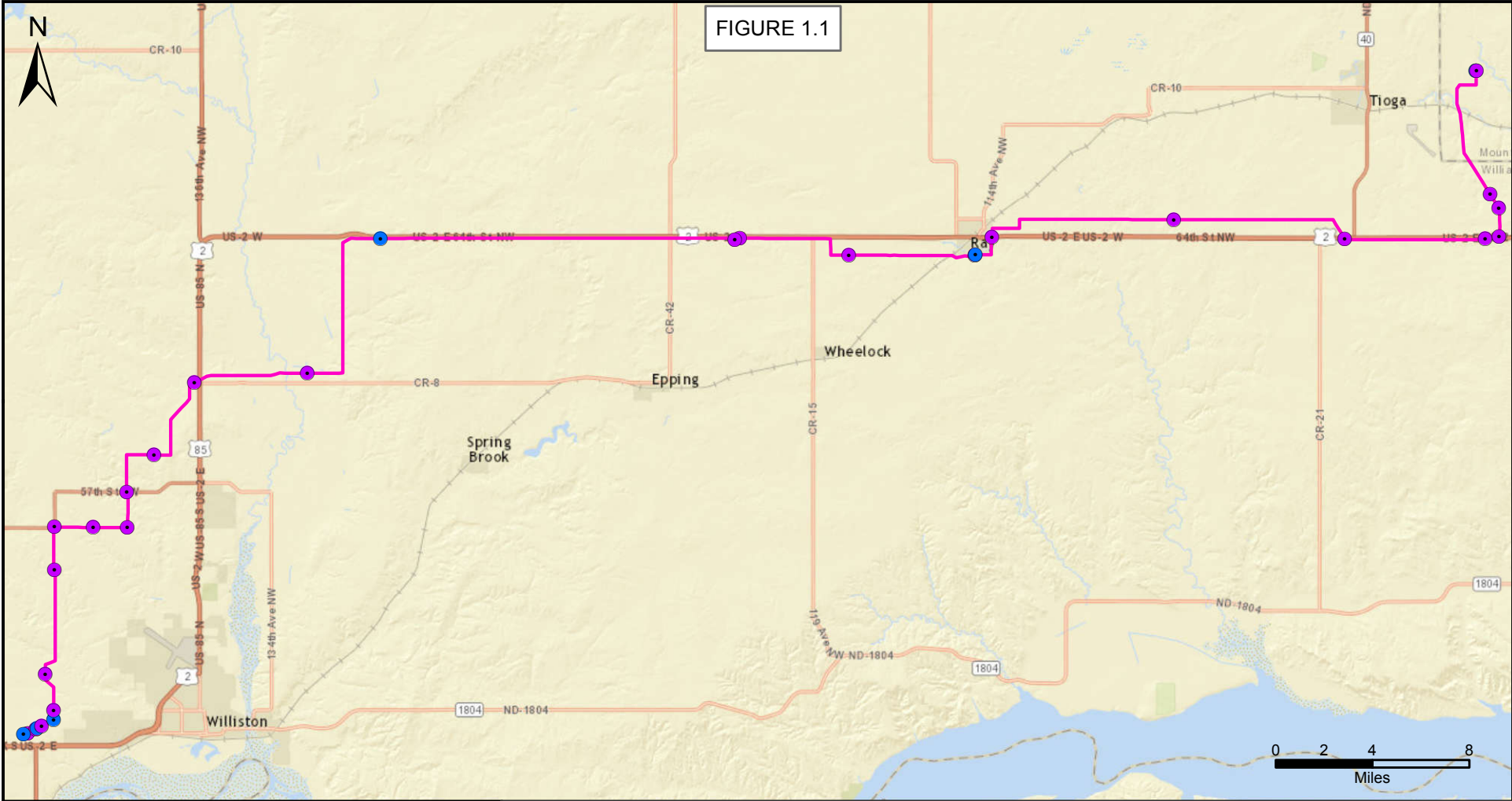
Photo 16 - Direction: Northeast – Entering Tioga substation



Photo 17 - Direction: Southeast – Tioga Substation

Appendix B: Figures

FIGURE 1.1

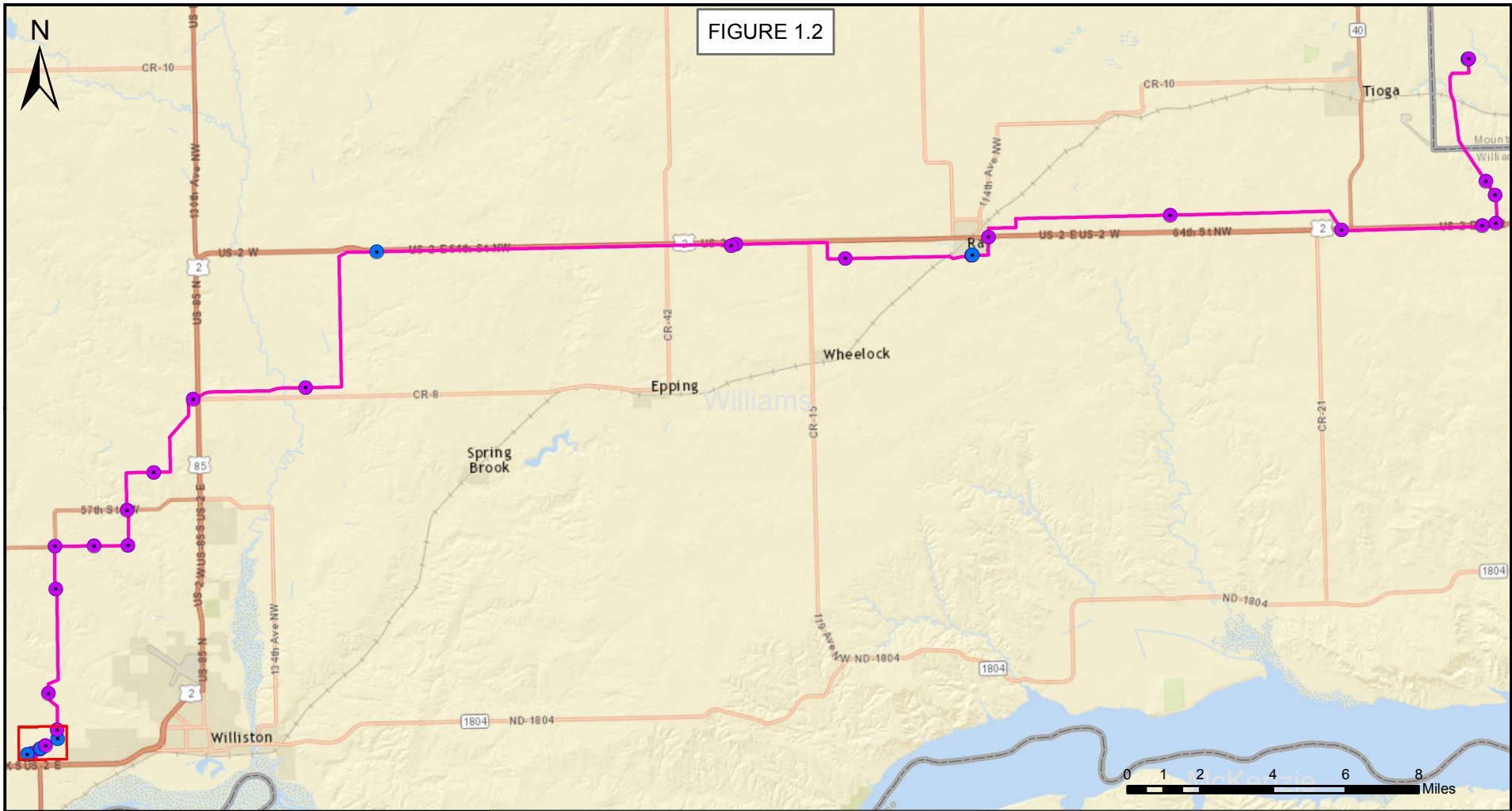


**ND PSC Case Number PU-07-671
 Basin Electric Power Cooperative
 230kV Transmission Line
 July 2014**

Legend




- Centerline of Project
- Observation Point/Overhead Road Crossing
- Observation Point/Transmission Pole

FIGURE 1.2



**ND PSC Case Number PU-07-671
Basin Electric Power Cooperative
230kV Transmission Line
July 2014**

Legend

-  Centerline of Project
-  Observation Point/Overhead Road Crossing
-  Observation Point/Transmission Pole