

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Montana-Dakota Utilities Co. / Otter Tail Power Company Case No. PU-13-840
345 kV Transmission Line – Dickey County
Siting Application**

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

July 10, 2014

Appearances

Commissioners Brian P. Kalk, Randy Christmann, and Julie Fedorchak.

Paul Sanderson, Evenson Sanderson, PC, 103 South 3rd Street Suite 5, Bismarck, ND 58501, on behalf of the Applicants Montana-Dakota Utilities Co. and Otter Tail Power Company.

Zachary Pelham, Special Assistant Attorney General, Legal Counsel for Public Service Commission.

Janet Demarais Seaworth, Administrative Law Judge, Office of Administrative Hearings, 2911 North 14th Street, Suite 303, Bismarck, ND 58503.

Preliminary Statement

On October 21, 2013, Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc. (MDU), and Otter Tail Power Company (Otter Tail) filed joint applications for a waiver of procedures and time schedules, a corridor certificate and a route permit to construct approximately 9 miles of 345 kV electric transmission line and associated facilities in Dickey County, North Dakota from a new Ellendale 345 kV substation to the South Dakota Border. This is the North Dakota portion of an Ellendale ND to Big Stone SD project.

Applicants requested the Commission waive procedures and time schedules set forth in North Dakota Century Code chapter 49-22 and North Dakota Administrative Code article 69-06 to allow for a single consolidated application for corridor certificate and route permit and to hold a combined hearing on the waiver request and the applications for corridor certificate and route permit.

On February 12, 2014, the Commission deemed the applications complete and issued a Notice of Filing and Notice of Hearing, scheduling a public hearing on the application for April 1, 2014 at 9:30 a.m. CST at the Fireside Restaurant, 415 1st Ave N, Ellendale, ND 58436. The notice identified the following issues to be considered:

1. Are the proposed facilities of such length, design, location, or purpose that they will produce minimal adverse effects and that adherence to applicable procedures and time schedules may be waived?
2. Is it appropriate for the Commission to waive any procedures and time schedules as requested in the application?
3. Will the location, construction, and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?
4. Are the proposed facilities compatible with the environmental preservation and the efficient use of resources?
5. Will the proposed facility locations minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

On March 31, 2014 the Commission delayed the start time of the public hearing from 9:30 a.m. to 1:00 p.m. CDT on April 1, 2014 due to winter weather conditions.

On April 1, 2014, a public hearing was held in accordance with the delayed schedule.

Having allowed all interested persons an opportunity to be heard, and having heard, reviewed, and considered all testimony and evidence presented, the Commission makes the following:

Findings of Fact

1. MDU is registered to conduct business in the State of North Dakota. MDU is a "utility" as defined at N.D.C.C. § 49-22-03(13) engaged in the generation, transmission and retail distribution of electricity under the regulatory jurisdiction of this Commission.
2. Otter Tail is registered to conduct business in the State of North Dakota. Otter Tail is a "utility" as defined at N.D.C.C. § 49-22-03(13) engaged in the generation, transmission and retail distribution of electricity under the regulatory jurisdiction of this Commission.

Size, Type, and Preferred Location of Facility

3. The proposed transmission project (Project) will consist of a 345-kV transmission line approximately 160 to 170 miles long traversing through North Dakota and South Dakota. The Project will include a new 345-kV Substation near Ellendale, North Dakota (Ellendale 345-kV Substation). The North Dakota facilities subject to Commission siting jurisdiction consist of approximately nine (9) miles of single-circuit, alternating current, 345-kV transmission line and associated facilities located entirely within Dickey County, North Dakota. The segment of the transmission line located within North Dakota will extend from the proposed Ellendale 345-kV Substation to the South Dakota border.
4. Associated facilities in addition to the 345-kV transmission line to be constructed within the Project area in North Dakota include:
 - a. Ellendale 345-kV Substation located immediately west of the existing Ellendale 230-kV Substation;
 - b. 230-kV tie line;
 - c. Modifications to the Ellendale 230-kV Substation; and
 - d. Temporary laydown area.
5. The purpose of the Project is to transmit electrical energy generated from sources primarily within North Dakota and South Dakota to consumers across the Midcontinent Independent System Operator, Inc. (MISO), formerly Midwest Independent Transmission System Operator, region.
6. The Project will use single-pole, steel single-circuit structures for the transmission line unless engineering or environmental conditions require the use of other structure types. The typical structure height will be approximately 125-155 feet with span lengths averaging approximately 1,000 feet.
7. The Project will be designed to meet all relevant state and local codes, National Electrical Safety Code requirements, Avian Power Line Interaction Committee guidelines, and the standards of Montana-Dakota and Otter Tail.

Multi-Value Project (MVP)

8. The Mid-continent Independent System Operator (MISO) is a not-for-profit, member-based regional transmission organization. The Project is part of MISO's MVP portfolio, a regionally-planned portfolio of transmission projects supported by significant

research and analysis. On December 8, 2011, the MISO Board of Directors approved a regional transmission plan for the construction of a portfolio of MVPs. The Applicants are members of MISO and participated in MISO's transmission planning efforts that identified MVPs. The Applicants concur with MISO's planning report as it pertains to the Project. The Project is designed to reduce the wholesale cost of energy delivery for consumers across the MISO region by enabling the delivery of low-cost generation to load, reducing congestion costs, and increasing system reliability. The MISO region, consisting of all or part of eleven states, is the general area served by the Project. A certificate of public convenience and necessity was issued by the Commission for the North Dakota facilities of the Project in Case No. PU-13-272 for MDU and Case No. PU-13-273 for Otter Tail on September 25, 2013.

Study of Preferred Locations

9. In their Application, the Applicants proposed a project corridor width of one mile. The project corridor was reduced to one hundred fifty feet wide in the Applicants' Late-filed Exhibit 13. The Applicants identified a refined study area of approximately 24 miles long and 12 miles wide for siting and routing purposes.

10. The Applicants analyzed a number of routing alternatives and factors, including engineering, economic, safety, and environmental factors, in addition to landowner considerations, to determine the most feasible route.

11. The Applicants contacted federal, state, and local government agencies to notify them of the Project and to request their comments with respect to the Project. Copies of written comments received were provided in the Application

12. The Applicants conducted a Class I literature search on a two-mile wide North Dakota Facility Study Area. Additionally, environmental GIS data collected included information on soils, land use, wetlands and water body crossings, and North Dakota Natural Heritage Inventory.

13. The State Historic Preservation Office (SHPO) concurred with the Applicant's recommendation from the Class I literature search regarding the Class II (reconnaissance) and Class III (pedestrian) survey approach for the Project.

Siting Criteria

14. N.D. Admin. Code. § 69-06-08-02 sets forth criteria to guide and govern the preparation of the inventory of exclusion and avoidance areas, and the corridor and

route suitability evaluation process for transmission facilities. The criteria set forth are classified as Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria.

15. Exclusion Areas must be excluded in the consideration of a route for a transmission facility. Exclusion Areas may be located within a corridor, but at no point shall such an area encompass more than fifty percent of the corridor width unless there is no reasonable alternative. A buffer zone of a reasonable width to protect the integrity of an Exclusion Area must be included in the siting of the transmission facility.

16. No Exclusion Areas have been identified within the proposed corridor.

17. Avoidance Areas may not be considered in the routing of a transmission facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an Avoidance Area should be designated for a transmission facility, the Commission may consider, among other things: the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative routes.

18. A planned center-pivot irrigation system, which would be an Avoidance Area defined by N.D. Admin. Code § 69-06-08-02(2) is planned to be installed within the proposed corridor. The proposed route has been adjusted so as to not interfere with the planned center-pivot irrigation system.

19. Applicants' Class I cultural resource file search revealed one archeological site and one site lead with no impacts anticipated. A Class III cultural resource survey will be performed with results submitted to SHPO.

20. The Project is not expected to have significant impact on Avoidance Areas.

21. In accordance with the Commission's Selection Criteria, a transmission facility shall be approved only if it is demonstrated that no significant adverse impacts will result from the location, construction, and maintenance of the transmission facility.

22. Impacts to wetlands will be avoided to the extent practicable. The majority of wetlands appear to be isolated basins. Applicants will continue to coordinate with the US Army Corps of Engineers and US Fish & Wildlife Service for wetlands under their jurisdiction and delineation will be performed as needed prior to construction.

23. The Project will not have a significant impact on the Selection Criteria set forth in N.D. Admin. Code. § 69-06-08-02(3). Any adverse effects on natural resources will be managed and maintained at an acceptable minimum. Once the Project is completed, the Applicants will restore all disturbed areas.

24. In accordance with the Commission's Policy Criteria, preference may be given to an applicant that maximizes benefits resulting from the adoption of certain policies and practices.

25. The Applicants have demonstrated their commitment to maximize the benefits of the Project as to meet the Policy Criteria in N.D. Admin. Code. § 69-06-08-04(4) by designing and locating the Project in a manner as to maximize operational efficiency and economic benefits while minimizing impacts on agriculture, extractable resources, health and safety, plant and animal life, communications, and the visual effect on the surrounding area.

Additional Measures to Minimize Impacts

26. Applicants have agreed to a number of steps to mitigate the impact of the Project as indicated by the Certification Relating to Order Provisions and Tree and Shrub Mitigation Specifications filed with the Commission at the April 1, 2014 public hearing as Exhibits 9 and 10, respectively.

27. Applicants will implement various measures to protect the right-of-way (ROW) or mitigate the adverse impacts of ROW preparation and transmission line construction, operation, and maintenance on the human and natural environment.

28. Applicants will participate in the North Dakota One-Call Excavation Notice System.

29. Applicants presented evidence that in order for the Project to comply with the North American Electric Reliability Corporation's (NERC) Vegetation Management Standards, clear cuts through windbreaks, shelterbelts, and all other wooded areas on this Project will need to extend to the edge of the one hundred fifty foot ROW.

Conclusions of Law

1. The Commission has jurisdiction over this matter under N.D.C.C. Chapter 49-22.

2. The proposed Project and associated facilities are transmission facilities as defined by N.D.C.C. § 49-22-03(12).

3. The location, construction, and operation of the proposed transmission facilities will produce only minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.

4. The Application submitted by the Applicants meets the corridor and route evaluation criteria required by N.D.C.C. Chapter 49-22.
5. The proposed transmission facility corridor and route will minimize adverse human and environmental impact, while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion.
6. The proposed transmission facilities are compatible with the environmental preservation and the efficient use of resources.
7. The requested waivers of procedures is justified based upon: the minimal impacts on the environment and the welfare of the citizens of North Dakota; the lack of objection to the proposed transmission facility by federal, state and local government bodies and agencies, or by the majority of landowners along the route; and the objective to have a reliable integrated transmission system in North Dakota.
8. The proposed transmission facilities are of such length, design, location, and purpose that they will produce minimal adverse effects.

From the foregoing Findings of Fact and Conclusions of Law, the Commission now makes its:

Order

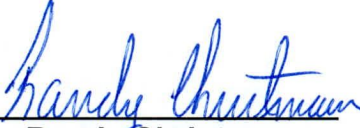
The Commission orders:

1. Applicants' application for a waiver of procedures and time schedules be granted.
2. Certificate of Corridor Compatibility No.154 is issued to the Applicants designating a corridor for the construction, operation, and maintenance of the proposed 345-kV transmission line and associated facilities in Dickey County, North Dakota. For the purposes of the Certificate, the Corridor will consist of a one hundred fifty foot area.
3. Route Permit No. 166 is issued to the Applicants granting authority to construct and operate the proposed 345-kV transmission line and associated facilities in Dickey County, North Dakota as described in the Application, at the public hearing, and in the Applicant's exhibits.
4. Applicants shall file with the Commission a summary of the class III cultural resource survey results and concurrence from the SHPO prior to construction.

5. Applicants shall complete surveys for jurisdictional wetlands and any needed delineations and file a report with the Commission prior to construction.

6. The Certification Relating to Order Provisions - Transmission Facility Siting with accompanying Tree and Shrub Mitigation Specifications filed with the Commission at the April 1, 2014 public hearing is incorporated by reference and attached to this Order, with the exception of paragraph 8 of the Tree and Shrub Mitigation Specifications, where the maximum width of clear cuts through windbreaks, shelterbelts, and all other wooded areas on this project is one hundred fifty feet.

PUBLIC SERVICE COMMISSION



Randy Christmann
Commissioner



Brian P. Kalk
Chairman



Julie Fedorchak
Commissioner

PUBLIC SERVICE COMMISSION
STATE OF NORTH DAKOTA

Certificate of Corridor Compatibility Number 154

This is to certify that the Commission has designated a transmission facility corridor for Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc. and Otter Tail Power Company for a 345 kV electric transmission line and associate facilities extending approximately nine miles from a new Ellendale 345 kV substation to the South Dakota Border.

This certificate is issued in accordance with the Order of this Commission dated July 10, 2014 in Case No. PU-13-840 and is subject to the conditions and limitations noted in the Order.

Bismarck, North Dakota, July 10, 2014.

ATTEST:

PUBLIC SERVICE COMMISSION



Executive Secretary



Commissioner

PUBLIC SERVICE COMMISSION
STATE OF NORTH DAKOTA

Route Permit Number 166

This is to certify that the Commission has designated a transmission facility route for Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc. and Otter Tail Power Company for a 345 kV electric transmission line and associate facilities extending approximately nine miles from a new Ellendale 345 kV substation to the South Dakota.


This permit is issued in accordance with the Order of this Commission dated July 10, 2014 in Case No. PU-13-840 and is subject to the conditions and limitations noted in the Order.

Bismarck, North Dakota, July 10, 2014.

ATTEST:

PUBLIC SERVICE COMMISSION


Executive Secretary


Commissioner

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Montana-Dakota Utilities Co., a Division of
MDU Resources Group, Inc.
345 kV Transmission Line – Ellendale to SD Border
Siting Application**

Case No. PU-13-840

**Otter Tail Power Company
345 kV Transmission Line – Ellendale to SD Border
Siting Application**

**CERTIFICATION RELATING TO ORDER PROVISIONS - TRANSMISSION FACILITY
SITING**

We are Jay Skabo and Timothy Rogelstad, representatives of Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc. and Otter Tail Power Company, respectively, with authority to bind Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc. and Otter Tail Power Company (hereinafter collectively referred to as "Company") to requirements to be set forth by the Commission in its Order and we certify the following:

1. Company understands and agrees that any Certificate of Corridor Compatibility or Route Permit issued by the Commission will be subject to the conditions and criteria set forth in Chapter 49-22 of the North Dakota Century Code and Chapter 69-06-08 of the North Dakota Administrative Code, and that Company shall be responsible for compliance with this order and conditions and criteria set forth in the applicable laws and rules.
2. Company agrees to hold a preconstruction conference prior to commencement of any construction, which must include a Company representative, its construction supervisor, and a representative of Commission Staff, to ensure that Company fully understands the conditions set forth in the Commission's order.
3. Company agrees to comply with the rules and regulations of all other agencies having jurisdiction over any phase of the transmission facility including all city, township, and county zoning regulations.
4. Company understands and agrees that it shall obtain all other necessary licenses and permits, and shall provide copies of all licenses and permits to the Commission prior to construction activity associated with the transmission facility that requires said license or permit.



5. Company agrees to inform the Commission and the Commission's third-party construction inspector of its intent to start construction on the transmission facility prior to the commencement of construction. Once construction has started, Company shall keep the Commission and the Commission's third-party construction inspector updated on construction activities on a weekly basis.
6. Company understands and agrees that any Certificate of Corridor Compatibility or Route Permit issued by the Commission is subject to suspension or revocation and may, in an appropriate and proper case, be suspended or revoked for failure to comply with the Commission's order, the conditions and criteria of the certificate or subsequent modification, or failure to comply with the applicable statutes, rules, regulations, standards, and permits of other state or federal agencies.
7. Company agrees to maintain records that will demonstrate that it has complied with the requirements of the Commission's order issuing a Certificate of Corridor Compatibility or Route Permit, and that it will preserve these records for Commission inspection at any reasonable time upon reasonable notice.
8. Company agrees to construct and operate the transmission facility in the manner described in Company's application, in any late filed exhibits, and supplemental materials (Application). To the extent there are any conflicts or inconsistencies between Company's Application and the provisions in this Certification Relating to Order Provisions, the Certification provisions control.
9. Company agrees to report promptly to the Commission the presence in the permit area of any critical habitat or threatened species, endangered species, bald eagles, or golden eagles of which Company becomes aware and which were not previously reported to the Commission.
10. Company understands and agrees that all cultural resource mitigation plans must be submitted to the North Dakota State Historic Preservation Office and approved prior to the start of any fieldwork and construction activity in the affected area.
11. Company understands and agrees that if any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, it must be marked, preserved and protected from further disturbances until a professional examination can be made and a report of such examination is filed with the Commission and the State Historical Society and clearance to proceed is given by the Commission.
12. Company understands and agrees that all buried facility crossings of graded roads must be bored unless the responsible governing agency specifically permits Company to open cut the road.

13. Company understands and agrees that all pre-existing township and county roads and lanes used during construction must be repaired or restored to a condition that is equal to or better than the condition prior to the construction of the transmission facility and that will accommodate their previous use, and that areas used as temporary roads or working areas during construction must be restored to their original condition.
14. Company understands and agrees that construction must be suspended when weather conditions are such that construction activities will cause irreparable damage to roads or land, unless adequate protection measures approved by the Commission are taken.
15. Company understands and agrees that all topsoil, up to 12 inches, or topsoil to the depth of cultivation, whichever is greater, over and along trench areas where cuts will be made, must be stripped and segregated from the subsoil. Any area on which excavated subsoil will be placed must also be stripped of topsoil. After backfilling is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must be replaced over areas from which it was stripped only after the subsoil is replaced.
16. Company understands and agrees that reclamation, fertilization, and reseeding is to be done according to the Natural Resources Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.
17. Company understands and agrees that its obligation for reclamation and maintenance of the right-of-way will continue throughout the life of the transmission facility.
18. Company understands and agrees that its obligation for reclamation and maintenance of the transmission facility, associated facilities, and roadways will continue throughout the life of the transmission facility.
19. Company agrees to comply with the Tree and Shrub Mitigation Specifications, attached.
20. Company understands and agrees that it shall work with landowners and residents to mitigate any increase in television and residential radio interference that results from the construction of the transmission facility.
21. Company understands and agrees that it shall repair or replace all fences and gates removed or damaged during all phases of construction and operation of the transmission facility.

22. Company understands and agrees that it shall repair or replace all drainage tile broken or damaged as a result of construction and operation of the transmission facility.
23. Company understands and agrees that staging areas or equipment shall not be located on land owned by a person other than Company unless otherwise negotiated with landowners.
24. Company understands and agrees that it shall remove all waste that is a product of construction and operation, restoration, and maintenance of the site, and properly dispose of it on a regular basis.
25. Company understands and agrees that it shall, as soon as practicable upon the completion of the construction of the transmission facility, restore the area affected by the activities to as near as is practicable to the condition as it existed prior to the beginning of construction.
26. Company understands and agrees that it shall provide any necessary safety measures for traffic control or to restrict public access to the transmission facility.
27. Company understands and agrees that it shall advise the Commission of any extraordinary events which take place at the site of the transmission facility, including injuries to any person, or the death of any threatened or endangered species on the site within five business days of such event.
28. Company understands and agrees that it shall advise the Commission of the discovery of a large number of dead birds or bats on the site within five business days of such event.
29. Company understands and agrees that it shall implement a procedure for how complaints concerning the transmission facility will be handled by Company
30. Upon request, Company agrees to provide the Commission with engineering design drawings of the transmission facility prior to construction.
31. Company understands and agrees that it shall inform the Commission in writing of any plans to modify the transmission facility or of any plans to modify the site plan for the transmission facility. Company understands and agrees to obtain written approval from the Commission prior to any modifications to the site plan or the transmission facility. Approval may be granted after notice and opportunity for hearing.
32. Company agrees to provide the Commission with both an electronic and a paper copy of the corridor approved by the Commission and the facility design

specifications for the construction of the transmission facility showing the location of the transmission facility as built, and will provide this information within 3 months of the completion of the construction. Company also agrees to provide an electronic version of the corridor approved by the Commission and the facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built that can be imported into ESRI GIS mapping software within 3 months of the completion of the construction. This electronic map data must be referenced to the North Dakota coordinate system of 1983, North and/or South zones US Survey feet (NAD 83) UTM Zone 13N or 14N feet (NAD 83), or geographic coordinate system (WGS 84) feet. The vertical data must be in the appropriate vertical datum for the coordinate system used. All submissions must specify the datum in which the data was developed.

33. Company understands and agrees that the authorizations granted by any Certificate of Corridor Compatibility or Route Permit issued by the Commission for the transmission facility are subject to modification by order of the Commission if deemed necessary to protect further the public or the environment.
34. Company understands and agrees that in the event Company desires to construct, within any corridor granted by a Certificate of Corridor Compatibility in this proceeding, a transmission facility or energy conversion facility that was not included in Company's application in this proceeding, Company shall apply to the Commission for a Route Permit or Site Certificate for the facility.
35. Company shall notify the Commission, as soon as reasonably possible, if any damage, as defined by North Dakota Century Code Chapter 49-23, occurs to underground facilities during construction conducted under the certificate or permit issued in this proceeding. In the event of any damage to underground facilities, Company shall suspend construction in the vicinity of the damage until compliance with One-Call Excavation Notice System requirements under North Dakota Century Code Chapter 49-23 has been determined and clearance to proceed has been given by the Commission.
36. Company understands and agrees that the corridor certificate and route permit are subject to suspension or revocation and may, after hearing, be suspended or revoked for failure to comply with the Commission's order, requirements of the One-Call Excavation Notice System under North Dakota Century Code Chapter 49-23, the conditions and criteria of the certificate or permit or subsequent modification, or failure to comply with applicable statutes, or rules, regulations, standards, and permits of other state or federal agencies.

Dated this 31 day of March, 2014.

MONTANA-DAKOTA UTILITIES CO., A DIVISION OF
MDU RESOURCES GROUP, INC.

By 
Jay Skabo

Its: Vice-President Electric Supply

Dated this 31 day of March, 2014.

OTTER TAIL POWER COMPANY

By 
Timothy Rogelstad

Its: Vice-President of Asset Management

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Montana-Dakota Utilities Co., a Division of
MDU Resources Group, Inc.
345 kV Transmission Line – Ellendale to SD Border
Siting Application**

Case No. PU-13-272

**Otter Tail Power Company
345 kV Transmission Line – Ellendale to SD Border
Siting Application**

Case No. PU-13-273

Tree and Shrub Mitigation Specifications

Inventory

1. Trees and shrubs anticipated to be cleared, including those that are considered invasive species or noxious weeds (e.g., *Caragana arborescens*, *Elaeagnus angustifolia*, *Rhamnus cathartica*, *Tamarix chinensis*, *T. parviflora*, *T. ramosissima*, *Ulmus pumila*), must be inventoried before cutting. The inventory must record the location, number, and species of trees and shrubs.
2. In windbreaks, shelterbelts and other planted areas, trees or shrubs anticipated to be cleared, regardless of size, must be inventoried for replacement.
3. In native growth areas, trees anticipated to be cleared that are 1 inch diameter at breast height (dbh) or greater must be inventoried for replacement.
4. In native growth areas, shrubs anticipated to be cleared in the permanent right-of-way must be inventoried for replacement.
5. In native growth areas outside the permanent right-of-way, shrubs must be cut flush with the surface of the ground, taking care to leave the naturally occurring seed bank and root stock intact. If soil disturbance is necessary, the native topsoil must be preserved and replaced after construction. Shrubs must be allowed to regenerate naturally where native topsoil is preserved and replaced. Where native topsoil is not preserved and replaced, shrubs anticipated to be cleared must be inventoried for replacement.



6. In native growth areas, trees and shrubs may be inventoried by actual count or by a sampling method that will properly represent the woody vegetation population. A sampling plan developed by the company, filed with the North Dakota Public Service Commission (Commission) and approved prior to the start of construction must define the sampling method to be used for trees, for tall shrubs and for low shrubs. The data from the sample plots must be extrapolated to the total acreage of the wooded area to be cleared to determine the species and quantity of trees and shrubs to be replaced.

Clearing for Construction

7. Trees and shrubs must be selectively cleared, leaving mature trees and shrubs intact where practical.
8. The maximum width of clear cuts through windbreaks, shelterbelts and all other wooded areas is 50 feet, unless otherwise approved by the Commission.
9. If the area of trees or shrubs actually cleared differs from the area inventoried, the difference in number of trees and shrubs to be replaced must be noted on the inventory.

Replacement

10. Prior to tree and shrub replacement, documentation identifying the number and variety of trees and shrubs removed, as well as the mitigation plan for the proposed number, variety, type, location and date of replacement plantings, must be filed with the Commission for approval.
11. Two 2-year-old saplings must be planted for every one tree removed. Two shrubs (stem cuttings) must be planted for every one shrub removed.
12. Except in the case of invasive or noxious species, trees and shrubs must be replaced by the same species or similar species, suitable for North Dakota growing conditions as recommended by the North Dakota Forest Service.

Invasive or noxious species must be replaced by similar non-invasive or non-noxious species suitable for North Dakota growing conditions as recommended by the North Dakota Forest Service.

13. Landowners must be given the option of having replacement trees and shrubs planted on the landowner's property, either on or off the right-of-way. The landowner must also be given the opportunity to waive those options in writing in order to have replacement trees and shrubs planted off the landowner's property.
14. At the conclusion of the project, documentation identifying the actual number, variety, type, location and date of the replacement plantings must be filed with the Commission.
15. Tree and shrub replacements must be inspected annually, in September, for three years. The first annual inspection must be at least one year from the anniversary date of the original plantings. A report of each annual inspection must be submitted to the Commission by October 1 of each year, documenting the condition of plantings and any woodlands work completed as of September of each year. If after the third annual report the survival rate is less than 75%, the Commission may order additional planting(s).