

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Basin Electric Power Cooperative
Lonesome Creek Station – McKenzie County
Siting Application

Case No. PU-12-790

AFFIDAVIT OF SERVICE BY CERTIFIED MAIL

STATE OF NORTH DAKOTA
COUNTY OF BURLEIGH

Cara DeSaye deposes and says that:

she is over the age of 18 years and not a party to this action and, on the **28th** day of **March, 2014**, she deposited in the United States Mail, at Bismarck, North Dakota, **one** envelope with certified postage, return receipt requested, fully prepaid, securely sealed and containing a photocopy of:

Order

and an original of:

Certificate Number 37

The envelope was addressed as follows:

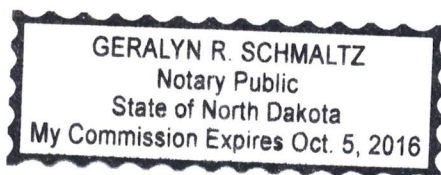
Casey Jacobson
Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismarck ND 58503

Cert. No. 7013 2630 0001 2317 0842

The address shown is the respective addressee's last reasonably ascertainable post office address.

Subscribed and sworn to before me
this **28th** day of **March, 2014**.

SEAL



Cara DeSaye

Geraldine Schmalz

Notary Public

35 PU-12-790 Filed: 3/28/2014 Pages: 17
Affidavit of service cert. mail- Order

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Basin Electric Power Cooperative
Lonesome Creek Station – McKenzie County
Siting Application**

Case No. PU-12-790

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

March 26, 2014

Appearances

Commissioners Brian P. Kalk, Randy Christmann and Julie Fedorchak

Casey J. Jacobson, Attorney, Basin Electric Power Cooperative, 1717 East Interstate Avenue, Bismarck, North Dakota 58503, on behalf of Basin Electric Power Cooperative.

Brian Schmidt, Special Assistant Attorney General on behalf of the Public Service Commission.

Janet Demaris Seaworth, Administrative Law Judge, Office of Administrative Hearings, 2911 North 14th Street, Suite 303, Bismarck, North Dakota 58501-1882, as Procedural Hearing Officer.

Preliminary Statement

On November 2, 2012, Basin Electric Power Cooperative (Basin Electric) filed a Letter of Intent to construct the Lonesome Creek Station, Phase II (Project) consisting of two 45 MW simple cycle natural gas-fired combustion turbines to be located at the existing site of the Lonesome Creek Station Unit 1 under construction approximately 14 miles west of Watford City, North Dakota.

On November 28, 2012, the Commission acknowledged the Letter of Intent and assessed a filing fee of \$57,500.00.

On October 16, 2013, Basin Electric submitted its Application for a Certificate of Site Compatibility (Application) to authorize construction and operation of the Project.

On December 18, 2013, the Public Service Commission deemed the application complete and issued a Notice of Filing and Notice of Hearing, scheduling a public hearing on Basin Electric's Application to begin January 28, 2014 at 10:00 a.m. CST at Teddy's Residential Suites, 113 9th Ave. SE, Watford City, North Dakota, 58854. The Notice identified the following issues to be considered:

1. 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?
2. Are the proposed facilities compatible with the environmental preservation and the efficient use of resources?
3. 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 January 28, 2014, at 10:00 a.m. CST, a public hearing was held as scheduled. Basin Electric presented three witnesses and two members of the public testified.

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. Basin Electric is a regional wholesale electric generation and transmission cooperative, organized under the laws of the state of North Dakota, and headquartered in Bismarck, North Dakota. Basin Electric provides power to 137 member distribution systems serving more than 2.8 million consumers in nine states, including North Dakota.
2. The project is an addition to Basin Electric's Lonesome Creek Station Unit 1. Basin Electric describes the Project as Phase II of the Lonesome Creek Station. The Project consists of adding two 45 MW LM6000-PF Sprint simple cycle aero derivative natural gas combustion turbines to its Lonesome Creek Station Phase I site

approximately 14 miles west of Watford City in Section 23, Township 150 North, Range 101 West, McKenzie County, North Dakota.

3. The combustion turbines primary components are a rotating compressor, a combustion chamber, a rotation downstream power turbine and an exhaust system. Ambient air is compressed in the compressor section. Fuel is then mixed with the compressed air and ignited in the combustion chamber. The combustion byproducts (exhaust gases) from the combustion chamber are routed downstream to the turbine. The high volume and velocity of the exhaust gases expand through to the turbine and drive the turbine blades to generate mechanical power. An electric generator converts the mechanical power produced from the turbine to electrical power, which is then supplied to the electrical transmission grid by Basin Electric.
4. The Project will be designed and constructed to meet all relevant state and national codes and standards including the National Electric Safety Code.
5. The Project will be owned, operated and maintained by Basin Electric.
6. The total cost of the Project is estimated to be \$102 million.
7. Basin Electric has concluded there is a need for the Project due to the oil and gas development in northwest North Dakota. After initializing Phase I, Basin Electric concluded from load studies that the Project is needed because its membership's demand for electric power is anticipated to increase by 1,000 MW.
8. Basin Electric contemplates beginning construction of Phase II on May 1, 2014 with commercial operation expected by the end of 2014.
9. The Project Site consists of approximately seven acres under permanent conversion of the larger 48.4 acre plant site as depicted in the Application. Basin Electric will use temporary construction areas surrounding the Project Site, all on a 160 acre parcel purchased by Basin Electric within Section 23, Township 150 North, Range 101 West in McKenzie County, North Dakota.
10. North Dakota Century Code §49-22-16 provides that no energy conversion facility site shall be designated if it violates any county or city land use, zoning, building rules, regulations, or ordinances. Basin Electric states it has obtained all required construction and zoning permits from McKenzie County.

11. The 160 acre parcel containing the Project Site has been zoned industrial.
12. There are no local noise ordinances applicable to the Project. Basin Electric conducted modeling studies that indicate noise expected from the Project at sensitive receptors will not exceed EPA recommended guidelines. The nearest residence is located approximately ¾ mile from the Project Site.
13. The State Historic Preservation Officer has concurred with a determination that no historic properties will be affected by the Project.
14. The Commission has established criteria pursuant to North Dakota Century Code §49-22-05.1, to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process. The Exclusion Areas, Avoidance Areas, Selection Criteria, and Policy Criteria are set forth in North Dakota Administrative Code §69-06-08-01. Basin Electric evaluated the Project Site and surrounding area for Exclusion Areas, Avoidance Areas, Selection Criteria and Policy Criteria.
15. There are no Exclusion Areas within the Project Site.
16. An energy conversion facility must not be sited within an Avoidance Area unless the applicant shows that under the circumstances there is no reasonable alternative. There are no Avoidance Areas within the Project Site.
17. In accordance with the Commission's Selection Criteria, an energy conversion facility site may be approved only when it is demonstrated that any significant adverse effects resulting from the location, construction and operation of the facility in that area will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum.
18. Basin Electric submitted information in its Application and through testimony that any significant adverse effects from the location, construction and maintenance of the facility as they relate to the Selection Criteria listed at N.D. Admin. Code §69-06-08-01(3) will be at an acceptable minimum or will be managed and maintained at an acceptable minimum.
19. In accordance with the Commission's Policy Criteria, preference may be given to an applicant demonstrating certain benefits from the adoption of certain policies and practices.

20. Basin Electric submitted information in its Application and through testimony demonstrating its commitment to maximize the benefits of the proposed energy conversion facility to meet the Policy Criteria set forth in N.D. Admin. Code §69-06-08-02(4).
21. The Project will not have a significant impact on demographics, cultural resources, recreational resources, land-based economics, geologic and groundwater resources, surface water and floodplain resources, wetlands, or rare and unique resources.
22. Basin Electric has indicated that it will use best available control technologies to minimize air emissions and will comply with United States Environmental Protection Agency and North Dakota Department of Health air quality standards. The North Dakota Department of Health issued a Prevention of Significant Deterioration (PSD) Permit for the Project on September 13, 2013.
23. Small quantities of hazardous materials will be used and generated by the proposed energy conversion facility. Basin Electric will minimize the use of such materials and employ proper management and disposal procedures.
24. Basin Electric will engage in erosion prevention and sediment control during and after construction. Once construction is completed, all unused land will be returned to its former condition and re-vegetated.
25. Basin Electric made other representations and agreements as contained in the Certification Relating to Order Provisions – Energy Conversion Facility Siting with accompanying Tree and Shrub Mitigation Specifications, executed by Basin Electric on January 22, 2014 (Hearing Exhibit 2), which is incorporated in these Findings of Fact.
26. At decommissioning, all equipment and buildings will be removed from the Project site and disposed of appropriately. Concrete foundations will be removed to a depth of at least three feet, and the ground surface will be returned to its pre-Project contour, quality and usage.

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

Conclusions of Law

1. The Commission has jurisdiction over this proceeding under North Dakota Century Code Chapter 49-22.
2. The energy conversion facility proposed by Basin Electric is an energy conversion facility as defined in North Dakota Century Code Section 49-22-03(5).
3. The proposed Project is of such design, location and purpose that it will produce minimal adverse effects as defined in North Dakota Century Code §49-22-03(5).
4. The Application submitted by Basin Electric meets the site evaluation criteria required by North Dakota Century Code Chapter 49-22.
5. The location, construction and operation of the proposed energy conversion facility will produce only minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.
6. The proposed energy conversion facility is compatible with the environmental preservation and the efficient use of resources.
7. The proposed energy conversion facility 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.
8. The Commission has jurisdiction to ensure compliance with the National Electrical Safety Code Standards in the construction and operation of the proposed energy conversion facility.

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

Order

The Commission orders:

1. Certificate of Site Compatibility No. 37 is issued to Basin Electric Power Cooperative authorizing the construction, operation and maintenance of two nominal 45 MW simple cycle aero derivative natural gas combustion turbines and associated facilities as identified in the application.
2. For purposes of the Certificate, the Site consists of approximately 48.4 acres in Section 23, Township 150 North, Range 101 West, McKenzie County, North Dakota, as described in the Application.
3. Basin Electric shall request a jurisdictional determination from the Commission under N.D. Admin. Code chapter 69-06-02.1 prior to the construction of any improvements or facilities outside of the Commission designated Site.
4. Basin shall file with the Commission a copy of its Risk Management Plan required for ammonia storage exceeding 10,000 lbs as set forth in the EPA's Clean Air Act Section 112(r) regulations (40 CFR Part 68 130).
5. The January 22, 2014 Certification Relating to Order Provisions-Energy Conversion Facility Siting, with accompanying Tree and Shrub Mitigation Specifications is incorporated by reference and attached to this Order.
6. To the extent there are any conflicts or inconsistencies between Basin Electric's application and the January 22, 2014 Certification, the Certification provisions control.

PUBLIC SERVICE COMMISSION



Randy Christmann
Commissioner



Brian P. Kalk
Chairman



Julie Fedorchak
Commissioner

PUBLIC SERVICE COMMISSION

STATE OF NORTH DAKOTA

Certificate of Site Compatibility Number 37

This is to certify that the Commission has designated an energy conversion facility site for Basin Electric Power Cooperative's Lonesome Creek Generating Station Phase II consisting of two additional 45 MW natural gas combustion turbines and associated facilities to be located at the existing Lonesome Creek Generation Station site in McKenzie County, North Dakota.

The facility may be sited in this designated location in compliance with the energy conversion facility siting criteria. This certificate is issued in accordance with the Finding of Fact, Conclusion of Law and Order of the Commission in Case No. PU-12-790 dated March 26, 2014 and is subject to the conditions and limitations noted in the order.

Bismarck, North Dakota, March 26, 2014.

ATTEST:

PUBLIC SERVICE COMMISSION


Executive Secretary


Commissioner

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Basin Electric Power Cooperative
Lonesome Creek Station – McKenzie County
Siting Application**

Case No. PU-12-790

**CERTIFICATION RELATING TO ORDER PROVISIONS - ENERGY CONVERSION
FACILITY SITING**

I am Myron Steckler, a representative of Basin Electric Power Cooperative ("Company") with authority to bind Company to requirements to be set forth by the Commission in its Order and I certify the following:

1. Company understands and agrees that the Certificate of Site Compatibility will be issued by the Commission 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 proposed energy conversion 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 energy conversion 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 energy conversion 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 of construction activities on a weekly basis.
6. Company understands and agrees that the Certificate of Site Compatibility 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 and the Certificate of Site Compatibility, 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 energy conversion facility in accordance with all applicable safety requirements.
9. Company agrees to construct and operate the energy conversion 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.
10. Company agrees to report promptly to the Commission the presence in or near the approved site of any critical habitat of threatened species, endangered species, bald eagles, or golden eagles that Company becomes aware of and which were not previously reported to the Commission.
11. 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.
12. 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 by the State Historical Society, a report of such examination is filed with the Commission, and clearance to proceed is given by the Commission.
13. Company understands and agrees that all buried facility crossings of graded roads shall be bored unless the responsible governing agency specifically permits Company to open cut the road.
14. 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 energy conversion 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.

15. 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.
16. During construction, at least 12 inches of topsoil, where available (or topsoil to the depth of cultivation, whichever is greater), over and along areas where facilities will be placed must be stripped and segregated from subsoil. Any area on which excavated subsoil will be placed must first be stripped of topsoil. After backfilling with subsoil is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must not be placed within the footprint of the facilities, and must be placed over areas containing topsoil.
17. 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.
18. Company understands and agrees that its obligation for reclamation and maintenance of the approved site will continue throughout the life of the energy conversion facility.
19. Company is aware that North Dakota law requires that all companies that own or operate electric generation of any size for the primary purpose of resale must comply with the standards of the National Electrical Safety Code in effect at the time of construction of the generation facility, and agrees to comply with that requirement.
20. Company agrees to comply with the Tree and Shrub Mitigation Specifications, attached.
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 proposed energy conversion 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 proposed energy conversion facility.
23. 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 energy conversion facility.

24. 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.
25. 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.
26. Company agrees that it shall, as soon as practicable upon the completion of the construction of the energy conversion 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.
27. Company understands and agrees that it shall provide any necessary safety measures for traffic control or to restrict public access to the energy conversion facility.
28. Company understands and agrees that it shall advise the Commission of any extraordinary events which take place at the site of the energy conversion facility, including injuries to any person, the death of any threatened or endangered species, within five business days of such event.
29. Company understands and agrees that it shall implement a procedure for how complaints concerning the proposed energy conversion facility will be handled by Company
30. Upon request, Company agrees to provide the Commission with engineering design drawings showing surveyed structure prior to construction.
31. Company understands and agrees that it shall inform the Commission in writing of any plans to modify the energy conversion facility, or of any plans to modify the site plan for the energy conversation facility. Company understands and agrees to obtain written approval from the Commission prior to any modifications to the site plan or the energy conversion facility, associated facilities, and roadway locations. 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 site approved by the Commission and the facility design specifications for the construction of the energy conversation facility showing the location of the energy conversion 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 site approved by the Commission and the facility design specifications for the construction of the energy conversation facility showing the location of the energy conversion 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 the Certificate of Site Compatibility for the energy conversion 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 site granted by a Certificate of Site Compatibility in this proceeding, an energy conversion facility that was not requested in Company's application in this proceeding, Company shall apply for a Certificate of Site Compatibility 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. The certificate of site compatibility is 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 22 day of January, 2014.

BASIN ELECTRIC POWER COOPERATIVE

By Myron Steckler
Myron Steckler

Its Project Management & Construction Director

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Basin Electric Power Cooperative
Lonesome Creek Station - McKenzie County
Siting Application**

Case No. PU-12-790

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).