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1.0 INTRODUCTION

On September 9, 2003, Faribault Energy Park, LLC (FEP) submitted to the Minnesota Environmental Quality Board (MEQB) a site permit application regarding a proposal to construct and operate a dual-fuel, combined-cycle electric generating facility capable of producing 250 megawatts (MW) of electricity. FEP is owned by the Minnesota Municipal Power Agency (MMPA) which provides member cities with energy. The eight member cities are Anoka, Arlington, Brownton, Chaska, Le Sueur, North Saint Paul, Olivia and Winthrop. MMPA also serves two non-member municipal utility customers (East Grand Forks and Shakopee) and a part of a cooperative's load (Steele-Waseca Cooperative Electric). The proposed project is intended to address a growing demand for electricity in the MMPA service area.

The application for the large electric power generating plant (LEPGP) Site Permit was accepted by the MEQB Chair on September 18, 2003.

In association with the proposed construction of its power plant, FEP applied to the EQB to construct two high voltage transmission lines (HVTL) from the proposed power plant to Xcel Energy's existing Lake Marion – West Faribault 115 kilovolt line (**Figure 1**). The application was submitted on March 8, 2004, and the MEQB Chair accepted the application on March 9, 2004.

On April 12, 2004, the Final Environmental Impact Statement on the LEPPGP was made available for public review and notice was given in accordance with Minnesota Rule, part 4400.1700, subpart 9.

The power plant is to be located approximately 2.5 miles north of downtown Faribault, on the west side of Highway 76 and south of 170th Street West, in central Rice County, Minnesota. The site proposed by FEP has been annexed by the city of Faribault and is currently zoned industrial. The site and surrounding area contain a significant amount of utility-related features including a natural gas pipeline easement, a petroleum product pipeline easement, and an electric transmission line corridor. The area surrounding the site primarily contains agricultural land and a few farmsteads.

Regulatory Process and Requirements

No person may construct a high voltage transmission line without a route permit from the Environmental Quality Board or the appropriate local unit of government (Minn. Stat. § 116C.57 Subd. 2). A high voltage transmission line is any transmission line capable of operating at a voltage of 100 kV or greater (Minn. Stat. § 116C.52 Subd 4).

For projects of the size involved here, the EQB prepares an Environmental Assessment (EA). The EA contains information on the human and environmental impacts of the proposed project and addresses methods to mitigate such impacts. The environmental assessment is the only state environmental review document required to be prepared on the project by the EQB. The route permit shall specify construction and system operation standards designed to minimize any potential.

FEP identified in its application a preferred route for the new line. FEP's selected HVTL route is associated with their preferred site for the proposed LEPGP. The preferred route would be located entirely on the power plant site, since the Xcel Energy line is immediately adjacent to the property. Correspondingly, an alternate route associated with FEP's alternative LEPGP site, which is located adjacent to the preferred site, has also been evaluated in this document.

In accordance with the rules applicable to this matter, the EQB held a public information meeting in Faribault on March 22, 2004. This meeting provided the public with an opportunity to learn about the proposed project, to suggest other route alternatives, and to identify concerns that should be considered by the EQB staff in preparing an EA. The EA will assist the EQB Board in making its decision on a route and what conditions to include in the final permit. Public comments on the scope of the EA were accepted until April 2, 2004.

After consideration of the public comments, the Chair of the EQB issued a Scoping Order on April 3, 2004 (**Appendix A**).

2.0 GENERAL DESCRIPTION

2.1 Purpose of the Transmission Line

The construction of the two parallel 115 kV high voltage transmission lines (HVTL) will connect the proposed LEPGP to the electrical transmission grid via Xcel Energy's existing Lake Marion – West Faribault 115 kilovolt line.

2.2 Project Location

Preferred LEPGP Site

The proposed location of the HVTL for the preferred LEPGP site will be in the southwest $\frac{1}{4}$ of the northeast $\frac{1}{4}$ of Section 13, Township 110N, Range 21W (**Figure 2**). The HVTL will run from Xcel Energy's existing 115 kV transmission line, located to the west, approximately 400 feet east to a substation located on the western edge of the plant.

The length of the HVTL will be approximately 400 feet and will be completely located on the grounds of the proposed power plant.

Alternative LEPGP Site

Should the alternative LEPGP site be selected, the HVTL will be located east-northeast of the preferred site in the southeast $\frac{1}{4}$ of the northeast $\frac{1}{4}$ of Section 13, Township 110N, Range 21W (**Figure 3**). The HVTL will run from the same location on the existing Xcel Energy 115 kV transmission line and head east approximately 1,600 feet to the substation. The route for the alternative LEPGP site would require FEP to obtain an ROW easement from the landowner.

2.3 Engineering and Operational Design

Transmission Line and Structures

The proposed project is to construct two parallel 115 kV transmission lines (approximately 400 feet for the preferred site or 1,600 feet for the alternate site), connecting the new FEP generation facility to Xcel Energy's existing transmission line.

FEP proposes to construct six (approximately 10 for the alternative route) H-frame wood pole structures with guyed corner posts (**Figure 4**). The average span length will be approximately 180 feet. The height of the proposed structures will be approximately 60 feet. These structures are similar to the existing main transmission line.

Transmission Capacity

The design of the proposed transmission lines is dictated by the voltage and design of the existing Xcel Energy transmission line. The existing Xcel Energy line is a 115 kV H-frame conductor, 477 MCM 26/7 ACSR (Hawk), rated at 702 amps, 140 MVA. Conceptual plans for

the tap lines to the generating station are 115 kV H-frame conductor, 795 MCM 26/7 ACSS (Drake), rated 1,556 amps, 310 MVA.

Construction Procedures

Construction and mitigation practices are developed early in the project planning process and often rely on industry specific Best Management Practices (BMPs) that have been developed over the years in consultation with appropriate agencies and affected property owners. These BMPs have been developed for ROW clearance, erecting power poles, and stringing power lines. BMPs include schedules for activities, prohibitions, maintenance guidelines, inspection procedures, and other practices. For example, in the case of wetlands, such practices include avoiding wetlands, controlling soil loss, and minimizing the impacts on hydrologically connected surface and groundwater and on the plants and animals that the water supports.

Transmission structures are generally designed for installation at existing grades. Therefore, structure sites will not be graded or leveled, unless it is necessary to provide a reasonably level area for construction access and activities. Once construction is completed, any graded area will be restored to its original contour to the extent practicable.

For facilities that will have the structures directly embedded in the ground, the structures will be erected by augering or excavating a hole approximately 8 to 10 feet deep and 2 feet in diameter for each pole. The wood structures will then be set and the holes back-filled with a mixture of native soil and crushed rock. After structures have been erected, conductors are installed by establishing stringing setup areas within the ROW. Conductor stringing operations will also require brief access to each structure to secure the conductor wire to the insulators or to shield wire clamps once final sag is established.

During construction, temporary removal or relocation of certain fences may occur, and installation of temporary (or permanent at land owner request) gates may be conducted. FEP will coordinate with the landowner for early harvest of crops where possible, and removal or relocation of equipment and livestock from the ROW may occur.

Limited ground disturbance at the structure sites is anticipated during construction. A main marshaling yard for secure, temporary storage of materials and equipment will be established on FEP's property and will include sufficient space to lay down material and hardware. Disturbed areas will be restored to their original condition to the maximum extent practicable. Post-construction reclamation activities include cleaning up all construction sites, including removing and disposing of debris; removing all temporary facilities, including access trails and staging and laydown areas; employing appropriate erosion control measures and reseeding disturbed areas.

Once construction is completed, in the case of the alternate site, the landowner will be contacted by FEP to determine if any damage has occurred as a result of the utility's project. If damage has occurred to crops, fences, or the property, FEP will compensate the landowner for the damages caused. An outside contractor may be contracted to restore the damaged property to as near as possible to its original condition. Since the entire construction will occur on FEP owned

property in the case of the preferred site, only if the alternate site is selected will there be a need to coordinate restoration with another landowner.

ROW Maintenance

Periodic access to the ROW of the completed transmission lines will be required to perform inspections and conduct routine maintenance. Regular maintenance and inspections will be performed during the life of the facility to ensure its continued integrity. Periodic inspections will be performed by ground personnel. Inspections will be limited to the ROW. If problems are found during inspection, repairs will be assigned to construction crews.

The ROW will continue to be managed to remove vegetation that interferes with the operation and maintenance of the line. Vegetation management is typically reviewed on a five-year cycle. ROW clearing practices include a combination of mechanical and hand clearing, along with herbicide application to remove or control the growth of vegetation in some areas.

3.0 ASSESSMENT OF IMPACTS AND MITIGATIVE MEASURES

3.1 Human Settlements

The project area is located in a row cropped agriculture farm field. The closest residence to the preferred site is approximately 700 yards to the northeast of the proposed transmission line. The closest residence to the alternate site is 250 yards to the northeast of the proposed transmission line.

The construction of the project on the preferred site would result in no displacement of any persons. The preferred site is currently farmland and one owner owns the land. FEP has executed a purchase agreement for the purchase of this property. Should the alternative site be selected, the nearest receptor may desire that his property be purchased, resulting in the displacement of one person. In addition, this would result in an incrementally higher cost to acquire this land.

3.2 Noise

The FEP generating station will be a much louder noise source than the proposed lines and the station will operate within state noise standards. The proposed transmission lines will not add significantly to the existing noise levels.

Noise is comprised of a variety of sounds, of different intensities, across the entire frequency spectrum. Humans perceive sound when sound pressure waves encounter the auditory components in the ear. These components convert the pressure waves into perceivable sound. Noise is measured in decibels (dB).

Stanley Consultants conducted an ambient noise survey at the Project site on September 9, 2002, to quantify and characterize the existing ambient sound levels. A Bruel and Kjaer precision sound level meter, Type 2231, was used to determine background noise levels at three locations; the far west property line along the transmission corridor, the center of the preferred property site, and the eastern property line adjacent to the nearest receptor.¹

Current ambient noise detectable on the Project site consists of intermittent traffic along the local roads, traffic from Interstate Highway 35 and State Highway 76, operation of agricultural equipment, small aircraft, and birds and insects. Average background sound levels range from 54 to 59 dBA.²

Ambient sound levels were measured in decibels using both octave band values and overall A-weighted sound levels (dBA). The A-weighted scale is preferred for applications such as this because it simulates the frequency response of the human ear.³

¹ Noise Evaluation Faribault Energy Park, LLC. Stanley Consultants, February 2003.

² Ibid

³ A Guide to Noise Control in Minnesota. pp 9-13. Minnesota Pollution Control Agency, March 1999.

The range of measured residual (L90) background sound levels and the audible noise sources are summarized in **Table 1**. Sound levels ranged from 23 to 58 dBA at the various locations. The highest levels were recorded on the western boundary, adjacent to Interstate 35.

Distance is a main criterion for measuring the strength of noise. For every doubling of distance from the noise source, a decrease of 6dB occurs from isolated sources.

Noise standards have been established by the MPCA, Minnesota Rules part 7030.0040, subp. 2. The MPCA is the regulatory agency responsible for the enforcement of these standards. The standards are consistent with speech (hearing and conversation), annoyance, and sleep requirements for receivers within areas classified according to land use activities.

The MPCA has established various noise area classifications (NAC) and has established noise standards for each classification. The NAC area classification is based on the land use activity at the location of the receiver, and the NAC determines the applicable noise standard. Lower noise levels are required in residential areas, for example, than in industrial zones.

The four noise area classifications are: NAC-1, NAC-2, NAC-3, and NAC-4. Some of the land use activities under NAC-1 include household units, hospitals, religious services, correctional institutions, and entertainment assemblies. NAC-2 land use activities include mass transit terminals, retail trade, and automobile parking. Some NAC-3 land uses include manufacturing facilities, utilities, and highway and street ROW. NAC-4, which has no noise limits, consists of undeveloped and under construction land use areas.⁴

Table 2 sets forth the Minnesota Noise Standards for the appropriate land use.

The Project site is located in undeveloped agricultural land. The nearest noise sensitive area (NAC-1) is located approximately 700 yards to the northeast from the proposed transmission line. Sound levels at this residence and other nearby residences must meet the NAC-1 standard.

Corona Noise

Corona can be defined as a type of localized discharge that results from high, non-uniform electric fields. At high voltages, corona produces visible light, and audible noise. The level of noise or its loudness depends on conductor conditions, voltage level, and weather conditions. Generally, noise levels during operation and maintenance of transmission lines is minimal.⁵

Noise emission from a transmission line occurs during heavy rain and wet conductor conditions. In foggy, damp, or rainy weather conditions, power lines can create a subtle crackling sound due to the small amount of the electricity ionizing the moist air near the wires. During heavy rain the general background noise level, rain falling and wind blowing, is usually greater than the noise from the transmission line.

⁴ <http://www.pca.state.mn.us/programs/noise.html>

⁵ <http://www.clarkson.edu/~mcgrath/web.html>

In these conditions, very few people are out near the transmission line. For these reasons audible noise is not noticeable during heavy rain. During light rain, dense fog, snow, and other times when there is moisture in the air, the proposed transmission lines will produce audible noise higher than rural background levels but similar to household background levels. During dry weather, audible noise from transmission lines is a barely perceptible, sporadic crackling sound.

Noise will be generated by the construction of the HVTL; the construction noise will be predominantly intermittent sources originating from diesel engine driven construction equipment. Potential noise impacts will be mitigated by proper muffling equipment fitted to construction equipment and restricting activities conducted during nighttime hours.

3.3 Aesthetics

The affected environment is rural and consists of row cropland with sporadic farmsteads. The transmission lines will consist of two, parallel 115 kV lines that will be approximately 75 feet apart. The structures will be H-frame wooden type, approximately 60 feet tall, with an average span between structures of 180 feet. The transmission lines will be visible from a few nearby residences, local roads and Interstate 35. Mitigative measures are not necessary since the visual impact of the transmission lines is not significant.

3.4 Recreation

Several state parks and recreation areas are located near the city of Faribault. Sakatah Lake, Nerstrand Big Woods, and Rice Lake are near Faribault and the project site. Sakatah Lake is 14 miles west of Faribault and offers biking, hiking, and camping. Nerstrand Big Woods is about nine miles northeast of Faribault and offers hiking and camping. Rice Lake is located southeast of Faribault and offers canoeing and bird watching. In addition, there is a MDNR area office approximately one mile to the south of the project site.

There are no state or county land, Nature Conservancy Preserves, or State and regional trails along the proposed transmission line route. Because there are no public lands along the proposed transmission line route, impacts to public recreational areas are not anticipated and no mitigation is necessary.

3.5 Transportation

The potential project area is located off Highway 76 to the west, south of 130th Street West, and east of Interstate 35.

Rice County Highway Department has indicated that the 2001 average daily traffic for Highway 76 is 180 vehicles per day.

Traffic near the proposed facility will increase during construction. Local motorists may be temporarily inconvenienced by the increase in large construction vehicles on the roadways and possible delays in traffic. This impact is expected to last during the construction period of 12

months. Traffic due to the construction workers could be expected to produce local impacts over a thirty-minute period at the beginning and end of the day and each time a change in shift occurs.

Because traffic levels may only be slightly, but insignificantly, impacted during construction with no impacts anticipated during facility operation, no mitigation will be required. The operation of the transmission line will have no impact on traffic patterns or usage.

3.6 Land Use

The existing land use for the preferred and the alternative sites and routes is agricultural row crop. Whichever site (i.e., preferred or alternative) is eventually chosen for the construction of the proposed LEPGP, that choice will result in the conversion of the land from agricultural to industrial. This will decrease the natural resources of the land, and takes the land out of agriculture production.

Neither the preferred, nor the alternative locations contain prohibitive sites, including:

- National Parks;
- National historic sites and landmarks;
- National historic districts;
- National wildlife refuges;
- National monuments;
- National wild, scenic, and recreational river ways;
- State wild, scenic, and recreational rivers and their land use districts;
- State parks;
- Nature conservancy preserves;
- State Scientific and Natural Areas; and,
- State and national wilderness areas.

The Faribault Land Use Plan of 1989 shows the parcel proposed for the project as a potential area for industrial development. The site already contains a significant amount of utility-related features including a major natural gas pipeline and electric transmission line corridor containing structures and lines.

The preferred site is zoned as a heavy industrial district (I-2), in which a power plant is a conditional use.

3.7 Prime Farmland

The combined LEPGP and HVTL project will remove approximately 37 acres of prime farmland from agricultural production. The Minnesota power plant siting rules (Minnesota Rules part 4400.3450, Subpart 4) allow use of not more than 0.5 acres of prime farmland per megawatt (MW) of installed power, excluding water storage reservoirs and cooling ponds. Given the nominal 250 MW generating capacity of the proposed Project, this rule would allow up to 140 acres of prime farmland for the generation plant site.

In the preferred configuration, the transmission line poles will disturb approximately 114 square feet of land plus an additional small area of disturbance for the guy wires, while in the alternate configuration 161 square feet of land will be idled.

3.8 Topography, Soils and Geology

The Project site slopes gently to the northwest with a deep drainage-way that enters the site from the west, passes through the site, and exits the site in the northeast corner. The drainage-way is a tributary to the Cannon River and flows to the northeast.⁶

The potential project sites are in a geologic area with depth of unconsolidated materials up to 70-foot deep. Geologic formations consist of glacial till interlaced with variable quantities of glacial lake and glacial outwash materials. Much of the resulting soils are fine-grained and generally not very well drained. The specific conditions at the sites are typical of this area, made up of relatively poorly drained silt loams and loams.

According to the Rice County Soil Survey, four different soils are found within the project area sites. The following summarizes the characteristics of the soils on the project area sites:

- **Cordova Clay Loam, 0-2 Percent** – A poorly drained soil with moderately slow permeability. This soil can be found on the micro lows of moraines.
- **Hayden Loam 2-6 Percent** – A well-drained soil with moderate permeability. This soil can be found on the summits of moraines.
- **Hayden Loam 6-12 Percent Eroded** – A well-drained soil with moderate permeability. This soil can be found on the back slopes and shoulders of moraines.
- **Glencoe Clay Loam, Depressional 0-1 Percent** – A very poorly drained soil with moderately slow permeability. This soil can be found in the depressions on moraines.

Depth to bedrock varies from 100 to 400 feet. Underlying bedrock includes Ordovician and Cambrian sandstone, shale, and dolomite to the south and Cretaceous shale, sandstone, and clay to the north.⁷

Construction will result in no disturbances to the bedrock geology beneath the site. Soils exposed during construction may be vulnerable to erosion until stabilized. Some compaction of surface soils will result from the use of heavy construction equipment.

FEP has said that BMP will be implemented during construction activities to reduce and minimize soil erosion and compaction.

3.9 Flora and Fauna

The Project site is already disturbed by agricultural activities and the vegetation lost due to the proposed project will include the cultivated field; surrounding vegetation (prairie and wetland

⁶ Minnesota Geological Survey Rice County Atlas C-9, Parts A & B. 1995

⁷ Minnesota Geological Survey Rice County Atlas C-9, Parts A & B. 1995

grasses, deciduous Maple-Basswood, and shrubs) lining the depressions, drainage-ways and property lines may also be affected.

The agricultural and natural habitats within the Project site are used by a variety of mammals including the eastern cottontail, striped skunk, whitetail deer, raccoon, fox, mice and squirrels.

Sandhill crane, heron, waterfowl, common grackle, red-winged blackbird, warblers (blue-winged and Cerulean), kestrel, red-tailed hawk, tufted titmice, and blue-gray gnat catchers are a few of the birds that would be expected around the Project site.

Amphibians and reptiles expected to be located within the Project site include the garter snake, gray tree frog, American toad and chorus frog.

The land is already disturbed by agricultural activities. It is not anticipated that the project would have a significant impact upon the species present in the project area. No lakes or streams will be impacted. Therefore, there will not be any impacts to fish. Little wildlife habitat will be permanently lost. All wildlife species that may be displaced are considered "common" in Minnesota, and their displacement would not be detrimental to their populations. No mitigation measures are necessary.

3.10 Archaeological and Historic Features

IMA Consulting, Inc. (IMA) completed an archeological and historic structures survey for the proposed project site. Along with the archeological and historic structures survey, IMA conducted a pedestrian survey and a shovel test of the proposed Project site.

Several recorded archaeological sites were identified within a one mile radius of the Project site (**Figure 5**).

No cultural materials were discovered during the pedestrian survey or shovel testing. The proposed project is not expected to have any adverse effects on National Register-eligible properties, and no further work was recommended by IMA.⁸

3.11 Air Quality

During construction there will be emissions from vehicles and other construction equipment and fugitive dust from ROW excavation and clearing activities. Temporary air quality impacts caused by the proposed construction-related emissions are expected to occur during this phase of activity.

There will be no significant adverse impacts to the surrounding environment because of the short and intermittent nature of the emission and dust-producing construction phases. No mitigation measures are necessary for the construction of the transmission lines.

⁸ IMA Consulting Report, August 7, 2002
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3.12 Water Resources

The preferred site for the power plant is truncated by a surface water drainage-way that appears to be semi-permanent as evidenced by the presence of minnows and frogs noted during the wetland delineation work. This drainage-way is a tributary to the Cannon River.

Currently, runoff from the existing field follows the slope of the land. There will be no grading required during construction of the transmission lines. The route of the transmission lines will not cross the surface water drainage way.

The near-surface or water table aquifer is approximately six feet below grade. This groundwater level is possibly influenced by the presence of drainage tiles installed for agricultural purposes. The transmission line poles will be set in the ground approximately 8 to 10 feet deep and 2 feet in diameter for each pole. It is unlikely that on-site temporary dewatering will be required during installation of the transmission line poles.

Floodplain data was obtained from the Federal Emergency Management Agency (FEMA) and Flood Insurance Rate Maps (FIRM).⁹ The site is not within a recognized floodplain. The Project site is situated at an elevation of approximately 1,010 feet above sea level.

Impacts to water quality are not expected and mitigation measures are not necessary.

3.13 Wetlands

The wetlands on the site were delineated by Stanley Consultants, Incorporated (Stanley Consultants) based on the guidelines contained in the 1987 Corps of Engineers Wetlands Delineation Manual. The wetland delineation was conducted to identify potential wetlands on the Project site. Federal regulations provide a definition for wetlands. A permit from the US Army Corps of Engineers must be obtained for any dredging or filling activities in regulated wetlands. **Appendix B** contains a series of photographs of the site taken during the Wetland Delineation work.

The wetland survey was conducted at the site on July 23 and 26, 2002, and on September 13 and 26, 2002.¹⁰ Sampling points were established in areas that potentially met the definition of wetlands. At these points, the required criteria (vegetation, hydrology, and soil conditions), were recorded on Routine Wetland Determination Data Forms.

Six wetland areas (5 Type I and 1 Type III - U. S. Fish and Wildlife Service Circular 39 classification system) were identified and delineated on the Project site (**Figure 6**). Three of the wetlands are associated with depressions and three are associated with drainage-ways. The area for the depression and drainage-way wetlands is approximately 0.25 acres and 1.34 acres, respectively.

No structures or foundations are proposed within any of the six (6) identified wetland areas.

⁹ <http://www.msc.fema.gov/>

¹⁰ Wetland Delineation MMPA Power Generation Facility, October 2002. Stanley Consultants, Inc.

3.14 Human Health and Safety

The proposed transmission line will be designed to meet or exceed the National Electric Safety Code.¹¹ Appropriate standards will be met for construction and installation, and all applicable safety procedures will be followed after installation. The proposed transmission line would be equipped with protective devices to safeguard the public from the transmission line if an accident occurs and a structure or conductor falls to the ground. The protective equipment would de-energize the line when an event occurred. In addition, the substation facilities will be fenced, and access will be limited to authorized personnel.

Electric and Magnetic Fields

The HVTL will be constructed to comply with Rural Utilities Service (RUS) as well as the National Electric Safety Code (NESC).¹² These standards are designed to minimize human health risks from electric and magnetic fields to nationally acceptable standards.

Electric and magnetic fields (EMF) arise from the flow of electricity and the voltage of a line. The intensity of the electric field is related to the voltage of the line and the intensity of the magnetic field is related to the current flow through the conductors. There is no state or federal standard for transmission line electric fields. However, in previous cases, the Minnesota Environmental Quality Board (MEQB) has imposed, in its transmission line permits, a maximum electric field limit of 8 kV/meter measured one meter above the ground.

The restriction was designed to prevent serious hazard from shocks when touching large objects like a bus or combine parked under high voltage transmission lines, usually 345 kV or greater. The electric field of this project will not exceed 8 kV/meter. Many years of research on the biological effects of electric fields have been conducted on animals and humans. No association has been found between exposure to electric fields and human disease. The possible effect of EMF exposure on human health has been a matter of public concern over the past few years. While the general consensus is that electric fields pose no risk to humans, the question of whether exposure to magnetic fields can cause biological responses or even health effects continues to be the subject of research and debate.

The most current and exhaustive reviews of the health effects from power-frequency fields conclude the evidence of health risk is weak and do not support the allegation of a major public-health danger. The National Institute of Environmental Health Sciences (NIEHS) issued its final report on June 15, 1999, following six years of intensive research. It concluded that the scientific evidence that extra low frequency EMF exposures pose any health risk is weak. The NIEHS was the lead government agency in directing and carrying out a congressionally mandated research program on EMF.

The Minnesota Department of Health (MDH) issued “An Assessment of Health Effects Research on Electric and Magnetic Fields” in January of 2000. The MDH concluded the following:

¹¹ <http://www.ieee.org/portal/index.jsp>

¹² <http://www.usda.gov/rus/electric/>

“...the current body of evidence does not show that exposure to these fields is a health hazard. Specifically, no conclusive and consistent evidence shows that exposures to residential electric and magnetic fields produce cancer or any other adverse human health effect.

The current body of research lacks fundamental evidence to support a cause and effect relationship between magnetic fields and childhood leukemia. This conclusion is based on laboratory studies, which have failed to demonstrate adverse health effects or a plausible biological mechanism of causation (in vivo and in vitro).

As with many other environmental health issues, the possibility of a health risk from EMF cannot be entirely dismissed. The MDH considers it prudent public health policy to continue to monitor the EMF research and to support prudent avoidance measures, such as providing information to the public regarding EMF sources and exposure.”

Electric utilities monitor and review research on the EMF issue and where possible, incorporate these conclusions in its planning and operation of power lines and substations.

There are currently no Minnesota regulations pertaining to magnetic field exposure. Electric utilities provide information to the public, interested customers and employees so they can make informed decisions about EMF. This includes measurements for customers and employees who request them.

Past decisions have reflected that the scientific data does not show any significant risk of health effects due to exposure to magnetic fields. Policy decisions have continued to support the construction of electric infrastructure, taking into consideration the most recent information available on the issue.

3.15 Radio and TV Interference

Corona on transmission line conductors can generate electromagnetic noise at frequencies at which radio and television signals are transmitted. This noise can cause interference (primarily with AM radio stations and the video portion of TV signals) with the reception of these signals depending on the frequency and strength of the radio and television signal. However, this interference is often due to weak broadcast signals or poor receiving equipment. If interference occurs because of the power line, the electric utility is required to remedy problems so that reception is restored to its original quality.

4.0 REGULATORY PERMITS AND APPROVALS REQUIRED

The EQB route permit is required for construction of the HVTL. The City of Faribault will issue a Conditional Use permit for the combined power plant and high voltage transmission line projects.

The transmission line portion of the LEPGP/HVTL project does not require a certificate of need (CON) because it is less than ten miles long (Minnesota Statutes 216B.243, Subdivision 8, paragraph 4).

TABLES

Table 1
Faribault Energy Park
Existing Background Sound Pressure Levels (dBA) Measured at the Noise
Measurement Locations (NML) during the Ambient Noise Survey

ID	During Daytime Hours ¹		During Nighttime Hours ²	
	Min/Max	Audible Noise Sources	Min/Max	Audible Noise Sources
NW 650'	22.8 dBA/ 57.5 dBA	Intermittent local traffic, steady distant traffic (I-35), intermittent aircraft, birds, insects	NA/NA	
NE 250'	27.7 dBA/ 49.8 dBA	Intermittent local traffic, distant traffic, occasional aircraft, birds, insects	NA/NA	
NE 800'	36.3 dBA/ 56.4 dBA	Local traffic, occasional aircraft, birds, insects	NA/NA	

NOTES

1. Daytime hours are considered 7:00 a.m. to 10:00 p.m.
 2. Nighttime hours are considered 10:00 p.m. to 7:00 a.m.
- NA – data not collected.

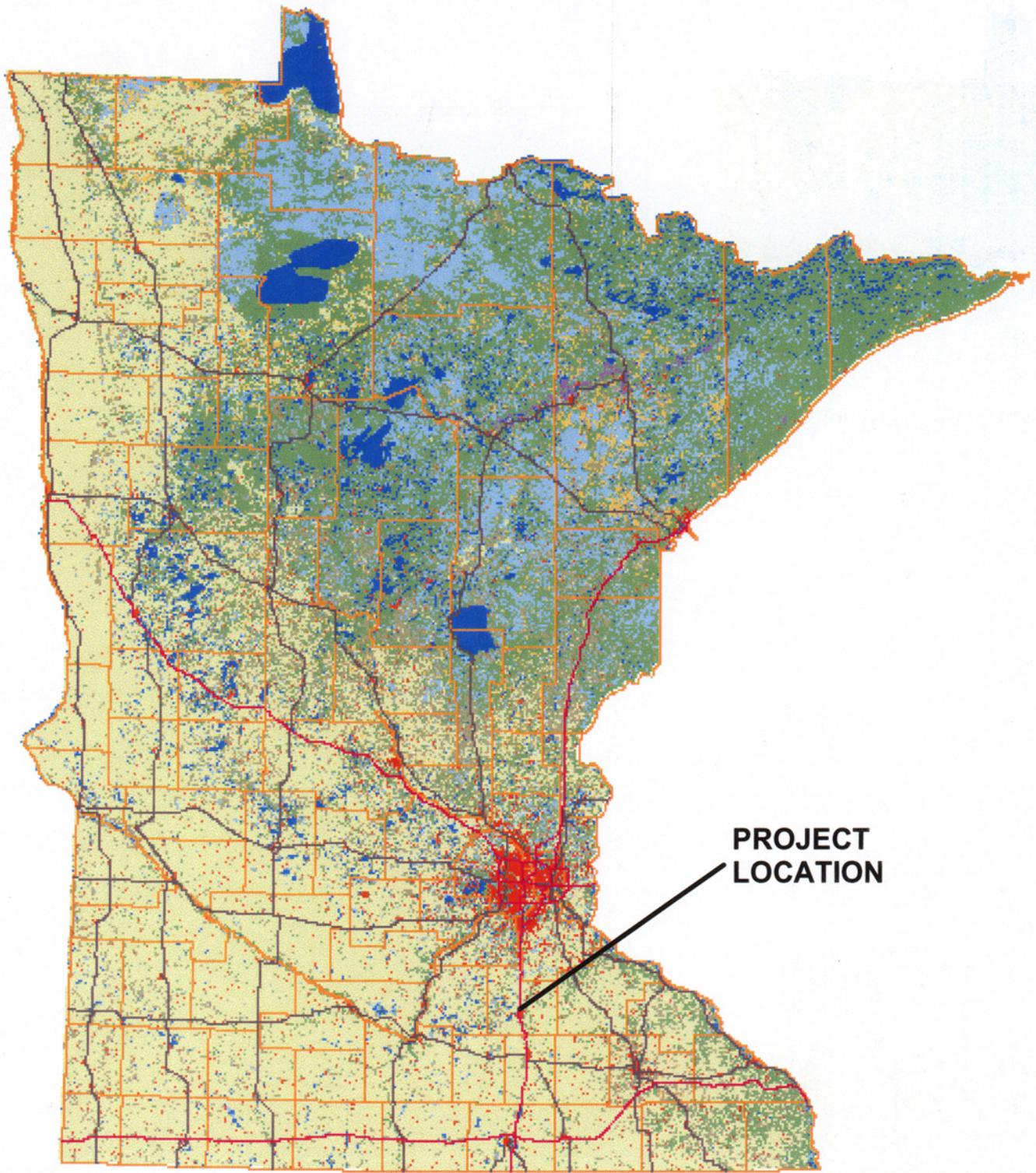
Sources: Noise Evaluation Faribault Energy Park, Stanley Consultants, Inc. February 2003

Table 2
State of Minnesota Noise Standards

Noise Area Classification	Daytime (dBA)		Nighttime (dBA)	
	L ₅₀	L ₁₀	L ₅₀	L ₁₀
1 (Residential)	60	65	50	55
2 (Commercial)	65	70	65	70
3 (Industrial)	75	80	75	80

dBA = decibels, A-weighted scale; L₁₀ = sound pressure level which is exceeded 10% of the time period; L₅₀ = sound pressure level which is exceeded 50% of the time period.

FIGURES



**PROJECT
LOCATION**

Figure 1 Site Location Map

**Faribault Energy Park. LLC
Environmental Assessment - HVTL
Docket #04-79-TR-FEP HVTL**



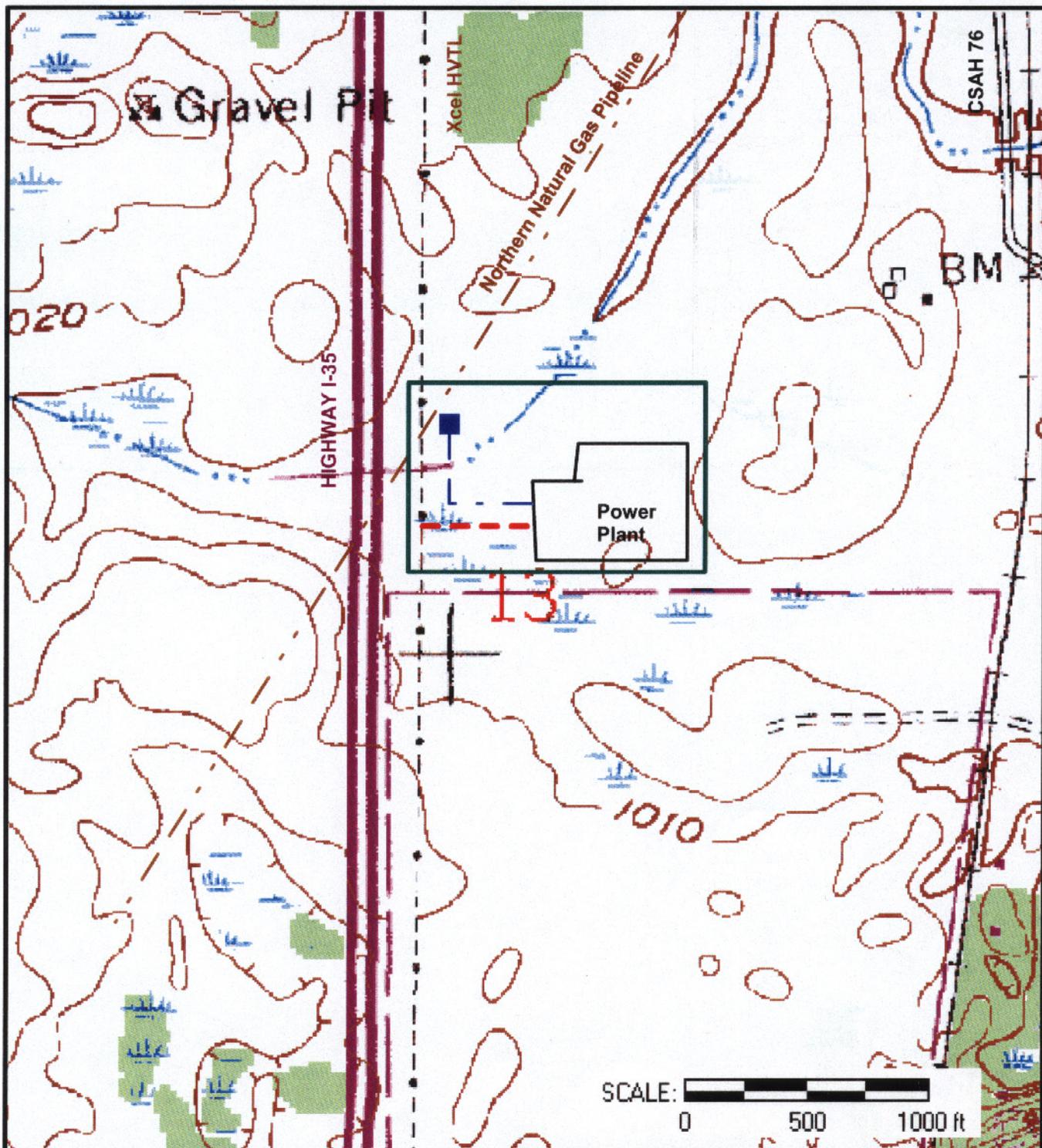


Figure 2 Site Map: Preferred Route

Faribault Energy Park, LLC
 Environmental Assessment - HVTL
 Docket #04-79-TR-FEP HVTL

LEGEND

- - - - - Proposed Transmission Line
- - - - - Proposed Pipeline
- Proposed Site Boundary

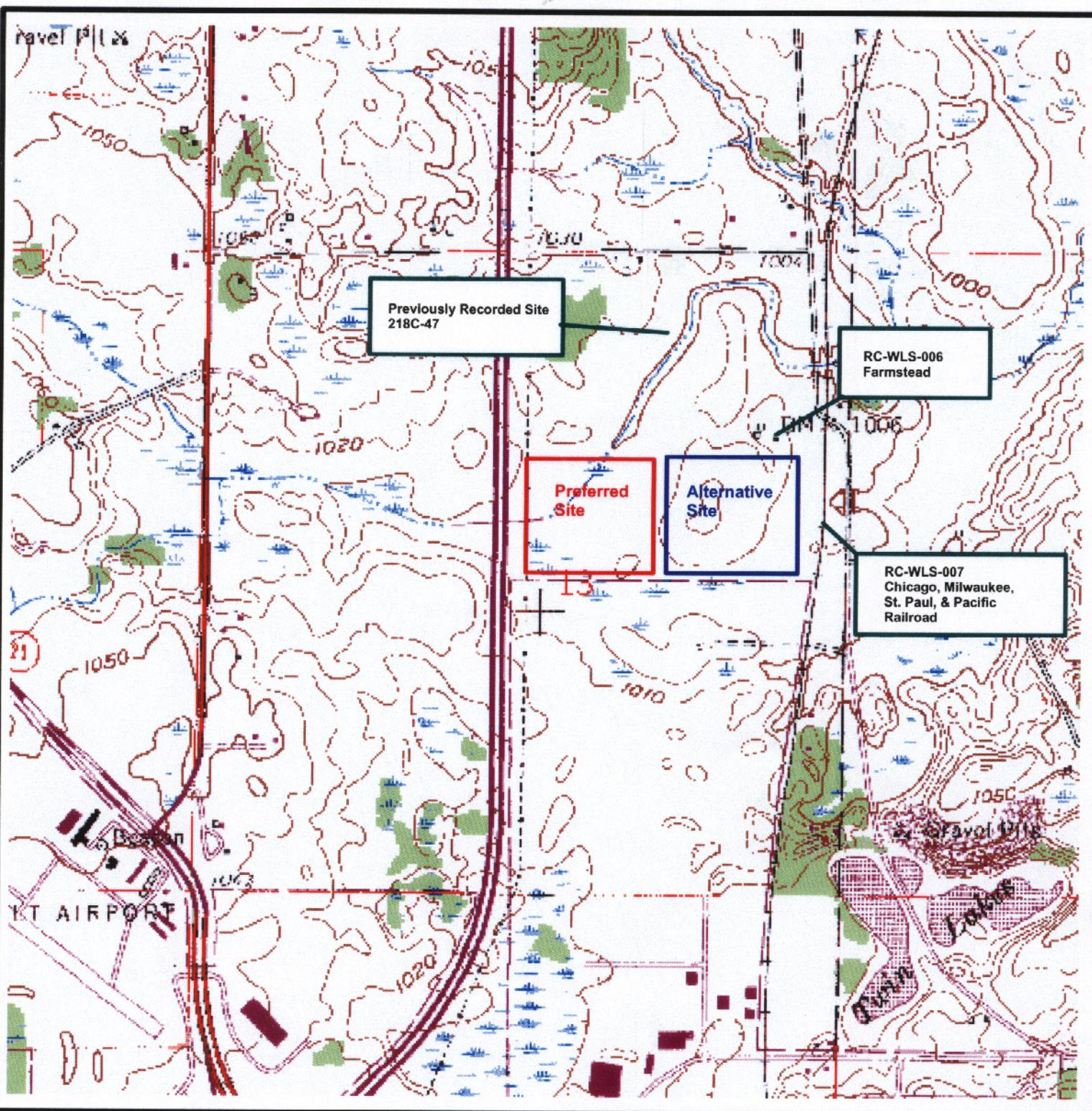


Figure 5 Site Map: Cultural Resource Survey

**Faribault Energy Park, LLC
 Environmental Assessment - HVTL
 Docket #04-79-TR-FEP HVTL**

Scale 1:18719



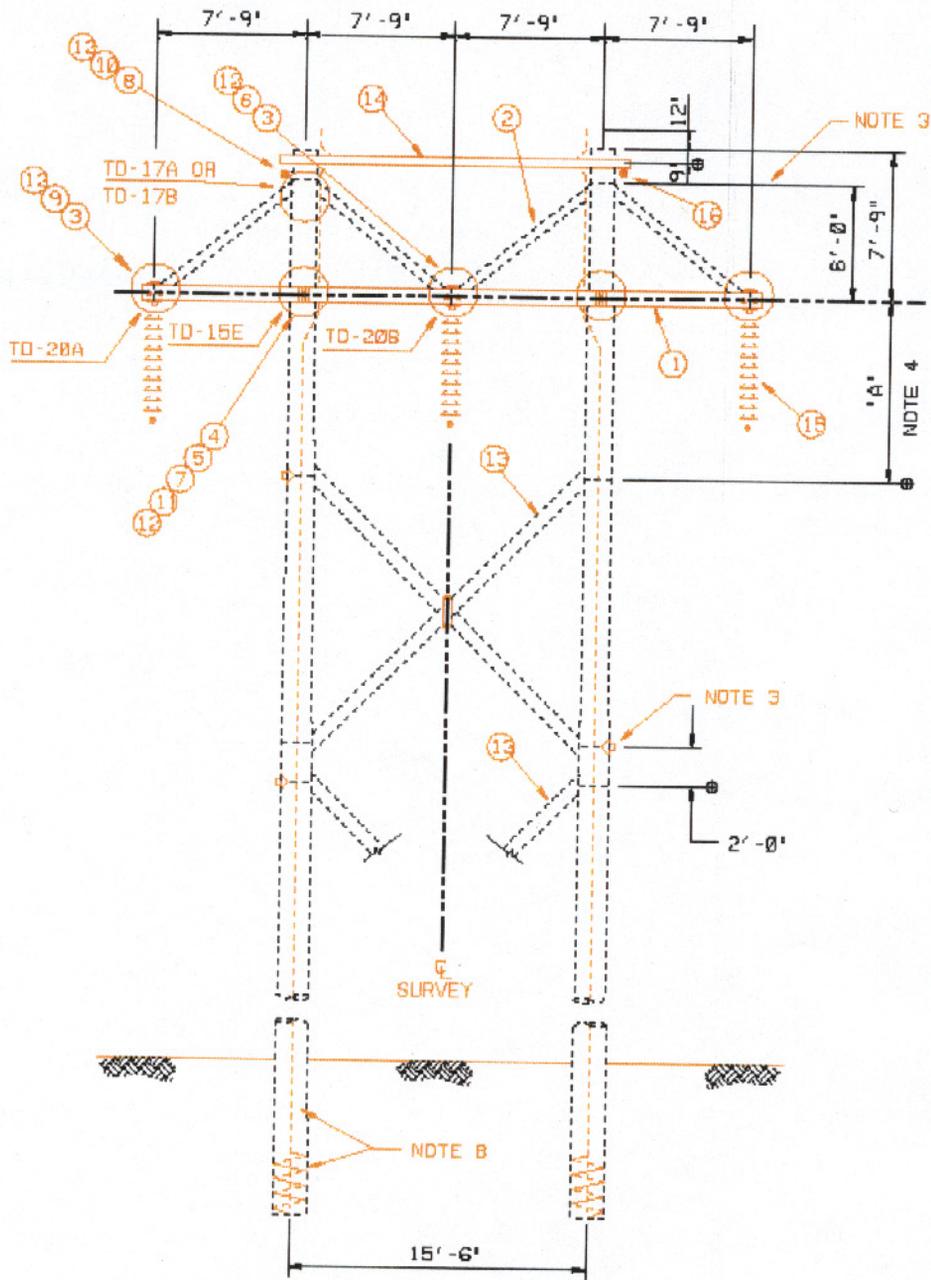


Figure 4 Pole Drawings

Faribault Energy Park, LLC
 Environmental Assessment - HVTL
 Docket #04-79-TR-FEP HVTL



Stanley Consultants INC.

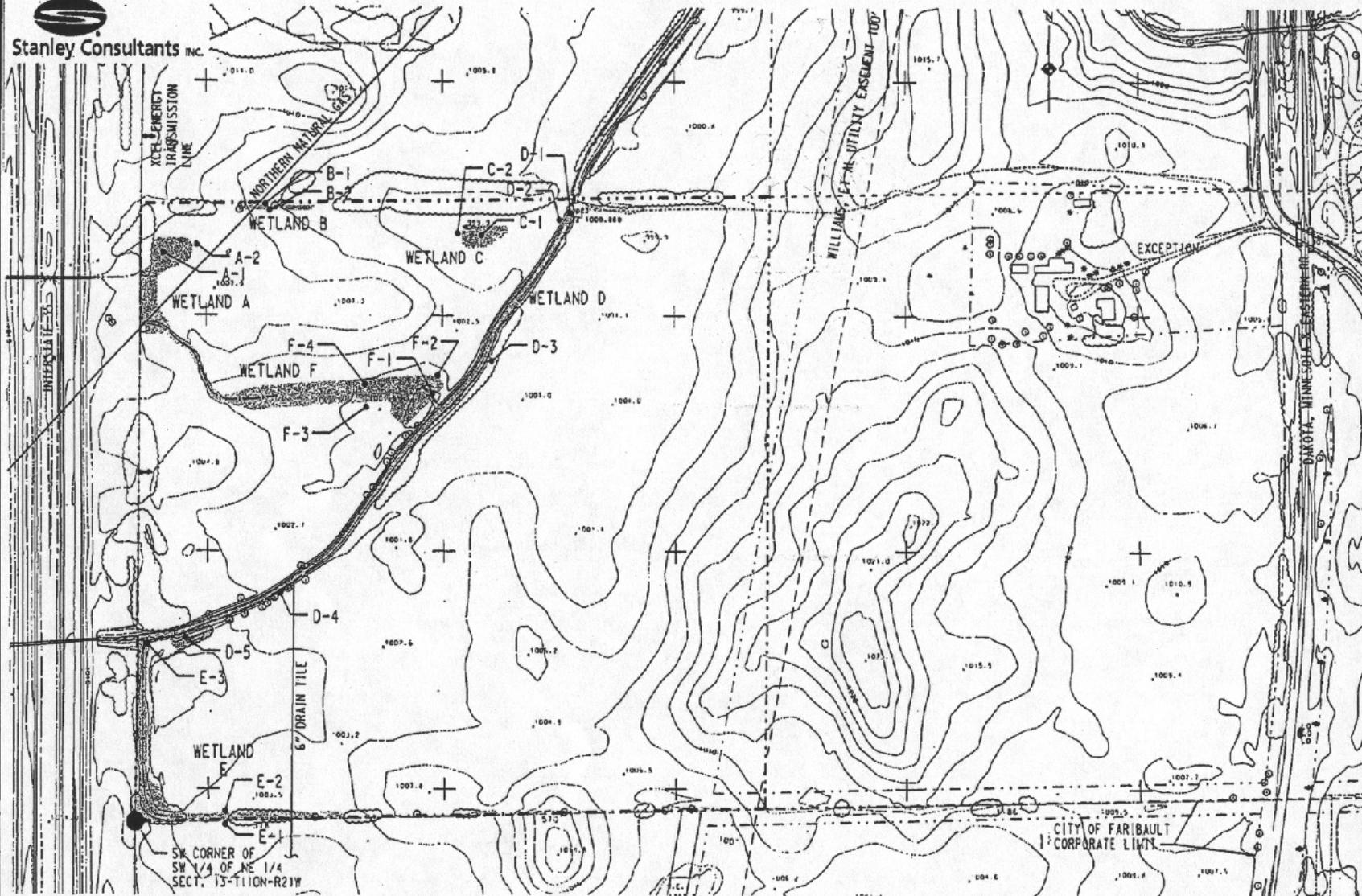


Figure 6 Site Map: Wetland Delineation

Faribault Energy Park, LLC
Environmental Assessment - HVTL
Docket #04-79-TR-FEP HVTL

APPENDIX A



Environmental Quality Board

658 CEDAR STREET
ST. PAUL, MN 55155
PHONE: 651-297-1257
FAX: 651-296-3698
TTY: 800-627-3529
WWW.EQB.STATE.MN.US

MINNESOTA ENVIRONMENTAL QUALITY BOARD

**In the Matter of Faribault Energy
Park, LLC's application for a route
permit for a high voltage transmission
line.**

**ENVIRONMENTAL ASSESSMENT
SCOPING DECISION
Docket #04-79-TR-FEP HVTL**

The above-entitled matter came before the Chair of the Minnesota Environmental Quality Board (EQB) for a decision on the scope of the Environmental Assessment (EA) to be prepared on the proposed Faribault Energy Park (FEP) high voltage transmission line (HVTL) project.

This HVTL project is associated with FEP's proposed large electric power generating plant (LEPGP) currently undergoing review by the EQB. The HVTL would connect the LEPPG on a site proposed by FEP to Xcel Energy's existing Lake Marion – West Faribault 115 kilovolt line.

The EQB held a public meeting on March 22, 2004, to discuss the project with the public and to solicit input into the scope of the EA to be prepared. The public was given until April 2, 2004, to submit written comments regarding the scope of the EA. Having reviewed the comments submitted and consulted with EQB staff, I hereby make the following Scoping Order. The EA shall address the following issues.

ALTERNATIVE ROUTES

In addition to the HVTL route proposed by FEP, the EA shall also address the HVTL route that is associated with FEP's alternative LEPPG site.

IMPACTS TO BE EVALUATED

The Environmental Assessment on the FEP project will address and provide information on the following matters:

A. GENERAL DESCRIPTION OF THE PROPOSAL

1. Purpose of the Transmission Line.
2. Project Location and Environmental Setting
3. Engineering and Operation Design

- a. Transmission Line and Structures
- b. Transmission Capacity
- a. Construction Procedures
- b. ROW Maintenance

B. IMPACTS AND MITIGATIVE MEASURES

- 1. Human Settlements
- 2. Noise
- 3. Aesthetics
- 4. Recreation
- 5. Transportation
- 6. Land Use
- 7. Prime Farmland
- 8. Soils and Geology
- 9. Flora
- 10. Fauna
- 11. Archaeological and Historic Features
- 12. Air Quality
- 13. Surface Water
- 14. Wetlands
- 15. Human Health and Safety to include Electric and Magnetic Fields (EMF)
- 16. Potential for radio, television and cell phone interference from transmission lines

ISSUES OUTSIDE THE SCOPE OF THE EIS

The EQB will not, as part of this environmental review, consider whether a different size or different type of transmission line should be built. Nor will the EQB consider the no-build option.

IDENTIFICATION OF PERMITS

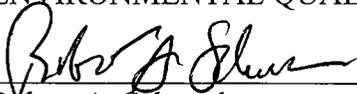
The EA will include a list of permits that will be required for the applicant to construct this project.

SCHEDULE

The EA will be completed by May 1, 2004.

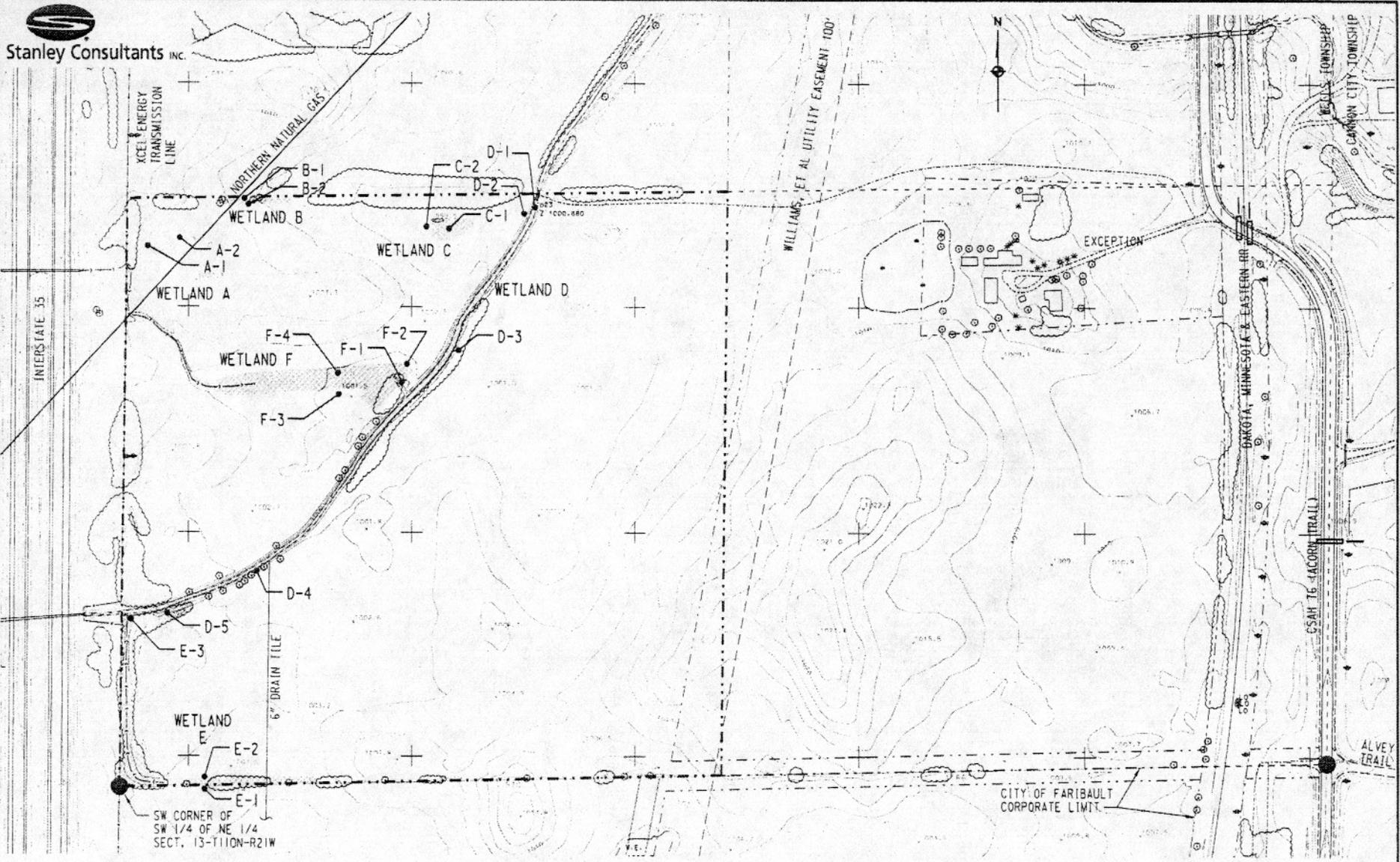
Signed this 7 day of April, 2003

STATE OF MINNESOTA
ENVIRONMENTAL QUALITY BOARD



Robert A. Schroeder,
Chair

APPENDIX B



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Delineated Wetland Locations
 Figure 4-1

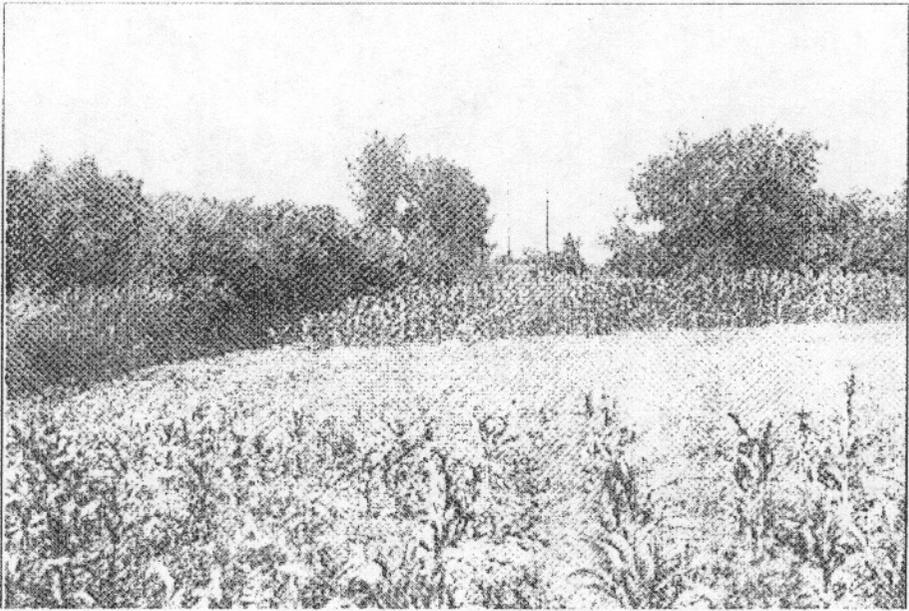


Photo 1: Looking north at Wetland A. E35 right-of-way to left.

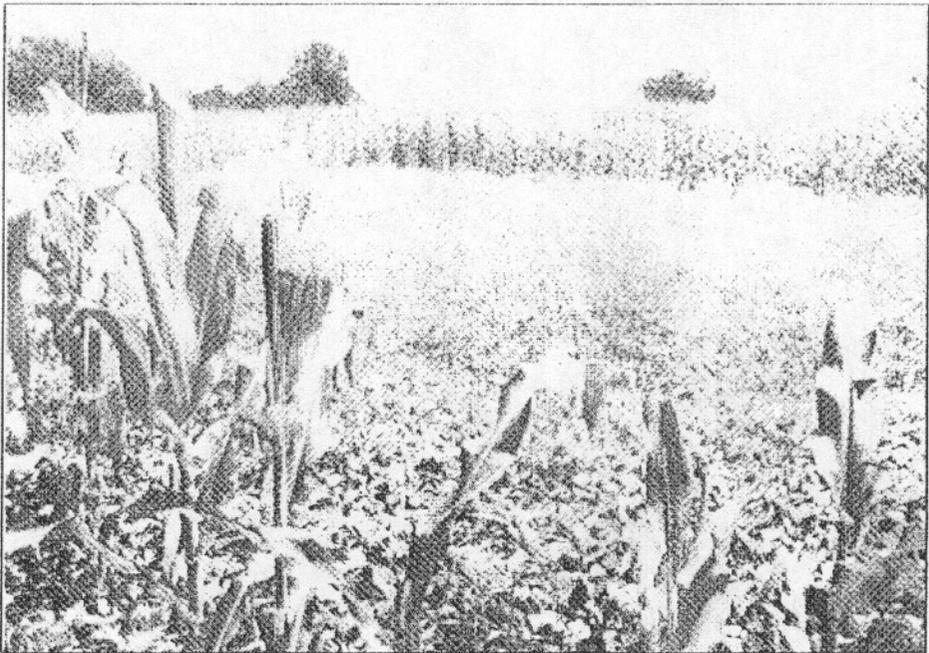


Photo 2: Looking east at Wetland A and location of Data Point Nos. A-1 and A-2.

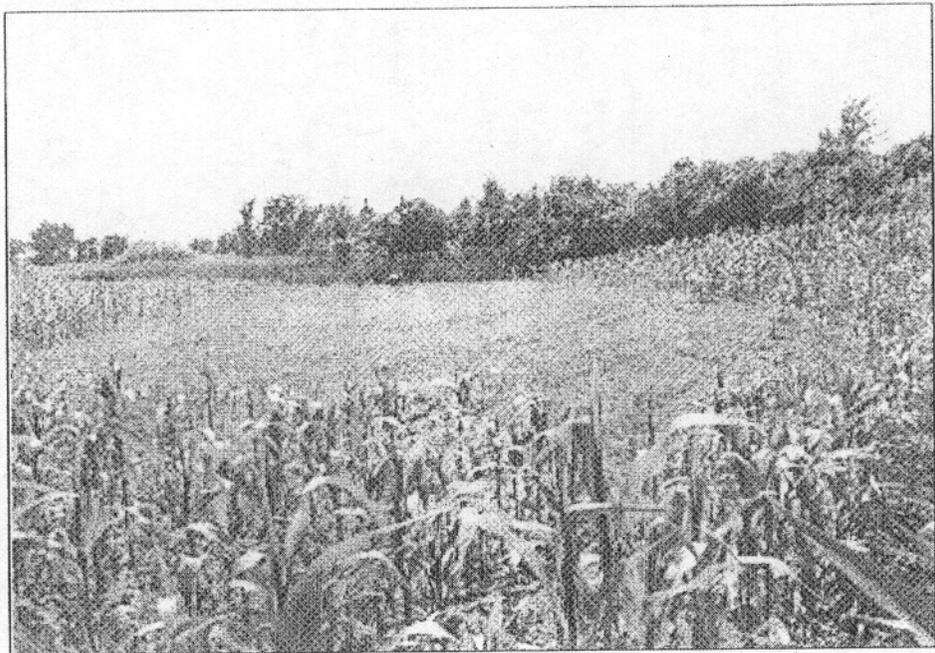


Photo 3: Looking southwest at Wetland A.



Photo 4: Looking northeast at Wetland B. Sign marks Enron gas pipeline crossing.

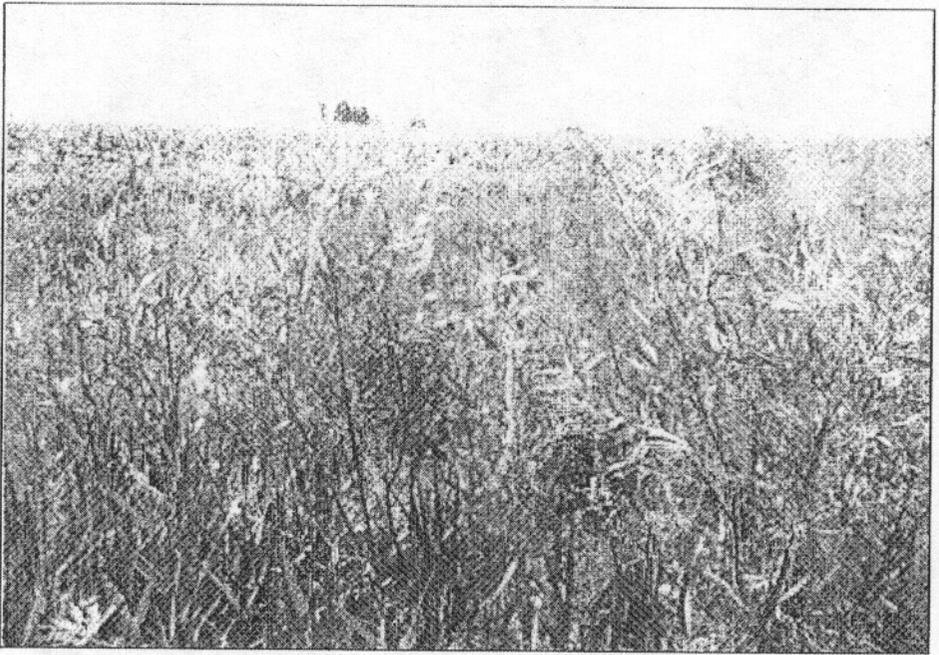


Photo 5: Looking south at Wetland B and at location of Data Point Nos. B-1 and B-2.

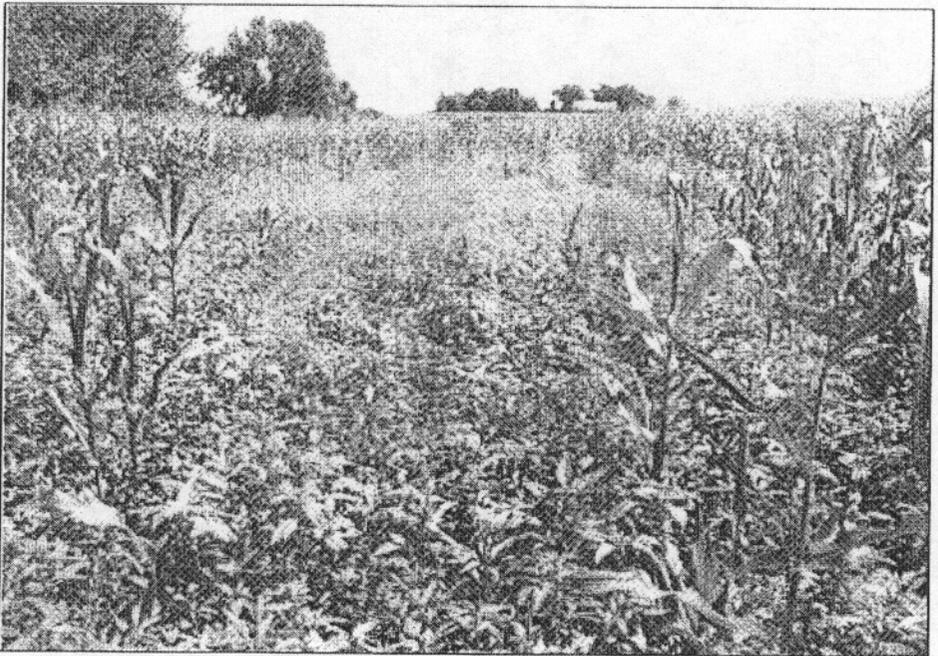


Photo 6: Looking east at Wetland C.

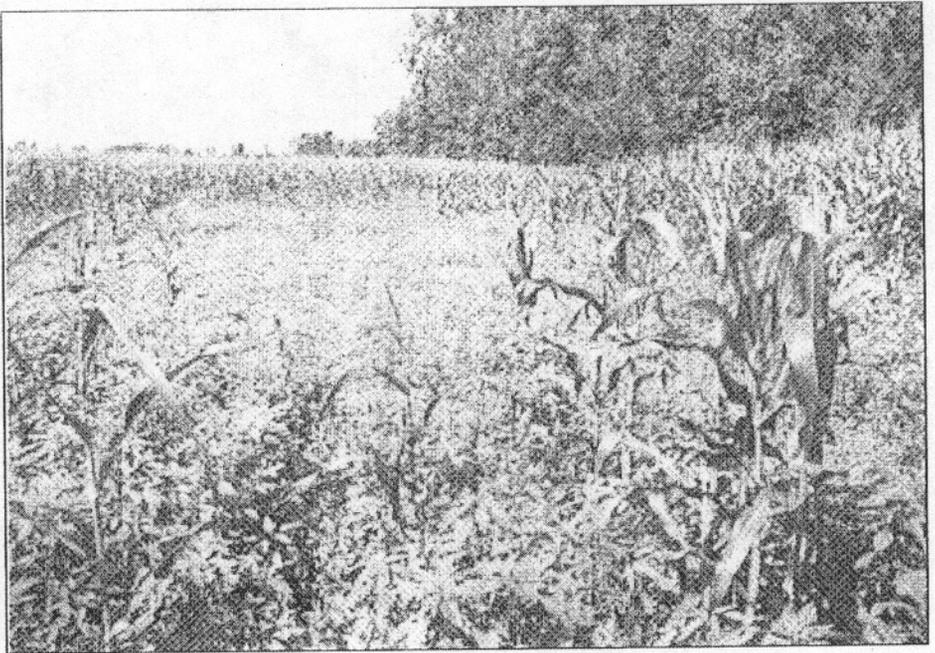


Photo 7: Looking west at Wetland C and at location of Data Point Nos. C-1 and C-2.



Photo 8: Looking north at culvert located on north end of Wetland D. Data Point No. D-1 taken at bottom of drainageway in foreground.

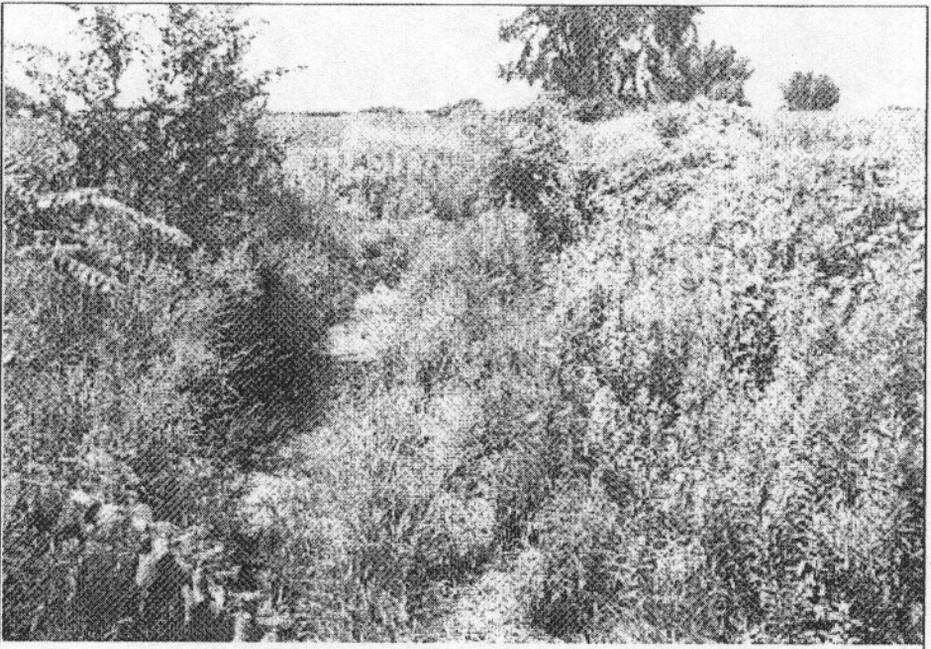


Photo 9: Looking south at Wetland D. Photo taken from south end of culvert. Note – soybean field to east and cornfield to west. Data Point No. D-2 taken at top of bank to west.

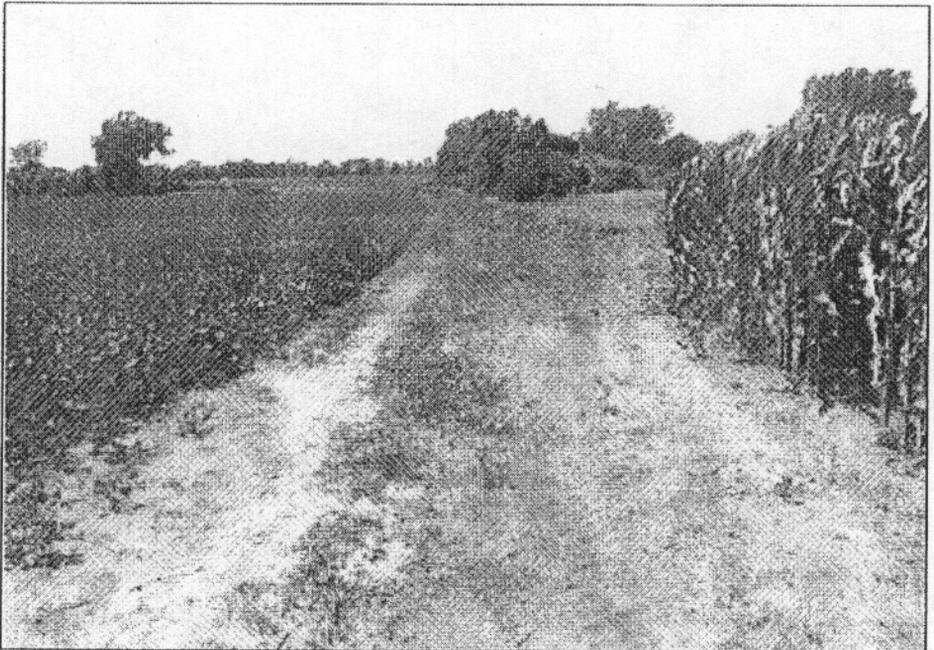


Photo 10: Looking west near north property line. Drainageway (Wetland D); Wetland C and I-35 in background.

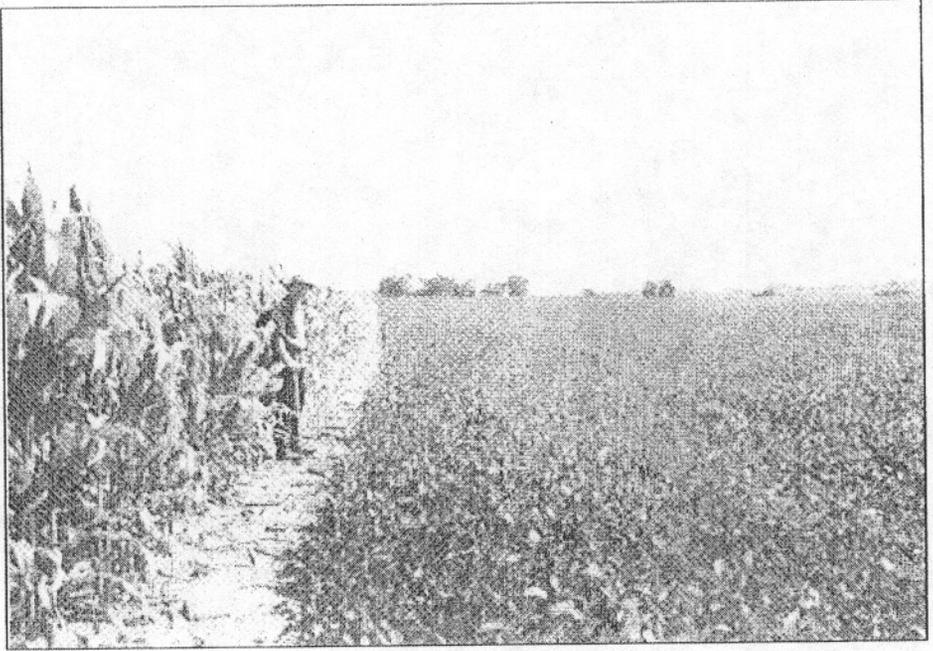


Photo 11: General site photo looking south along east side of site.

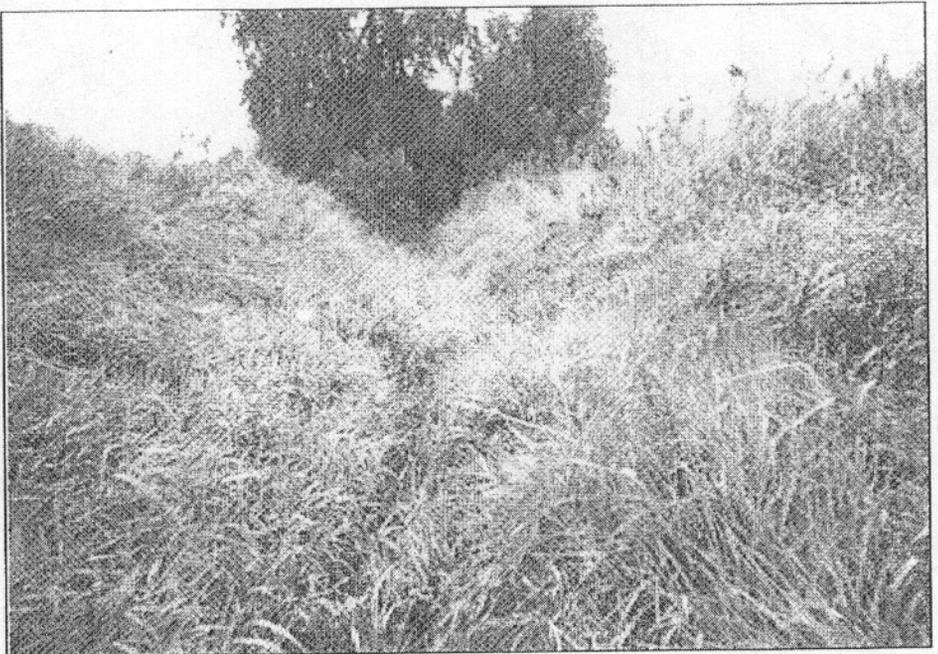


Photo 12: Looking northeast at Wetland D taken from a point southwest of the tree line near the midpoint of the drainageway.

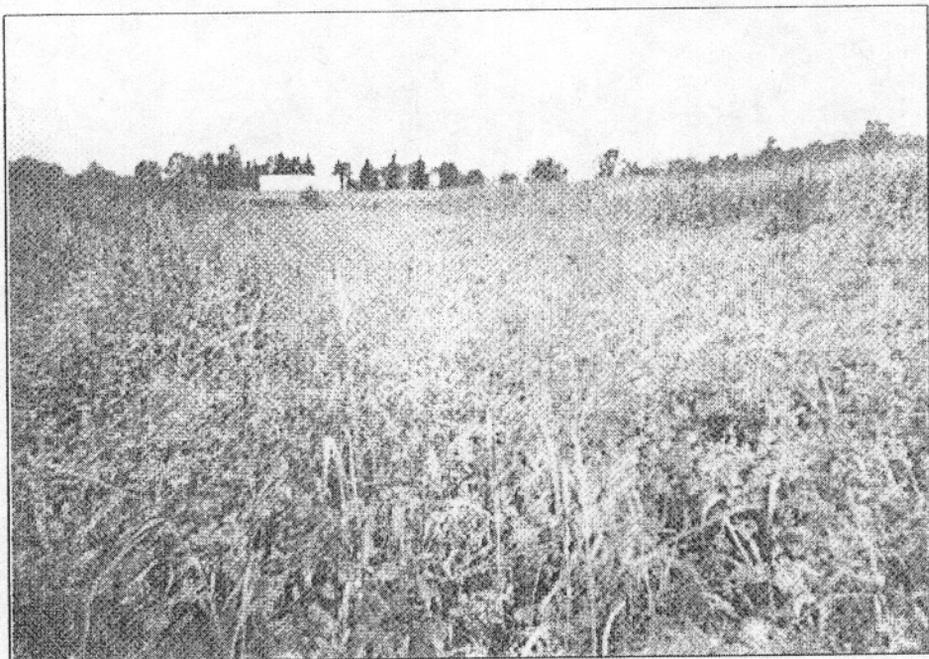


Photo 15: Looking west along drainageway downstream of Wetland A. Note F-35 in background.

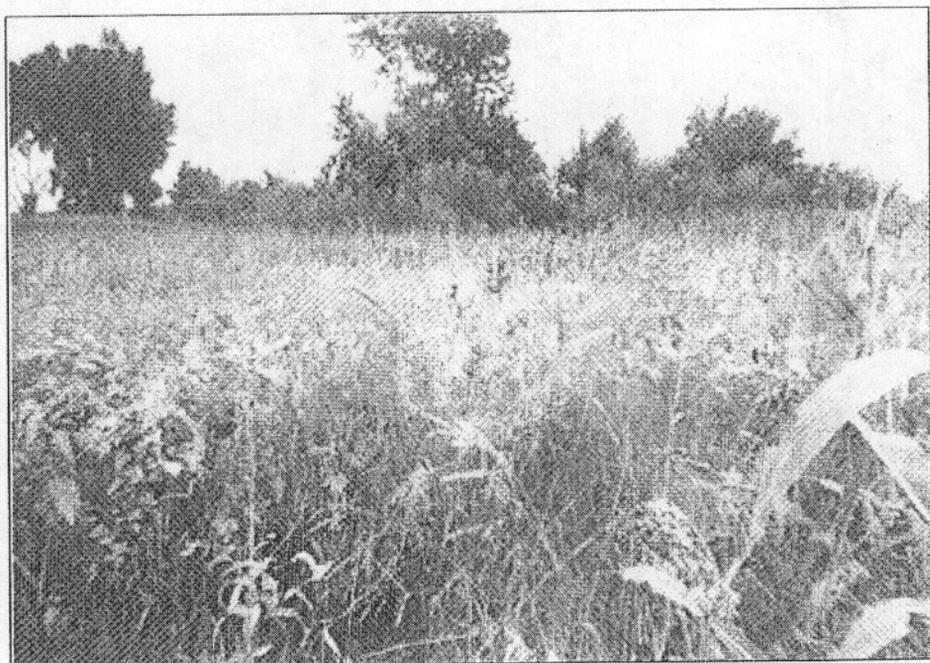


Photo 16: Looking east at Wetland E and the drainage ditch (Wetland D) in the background.

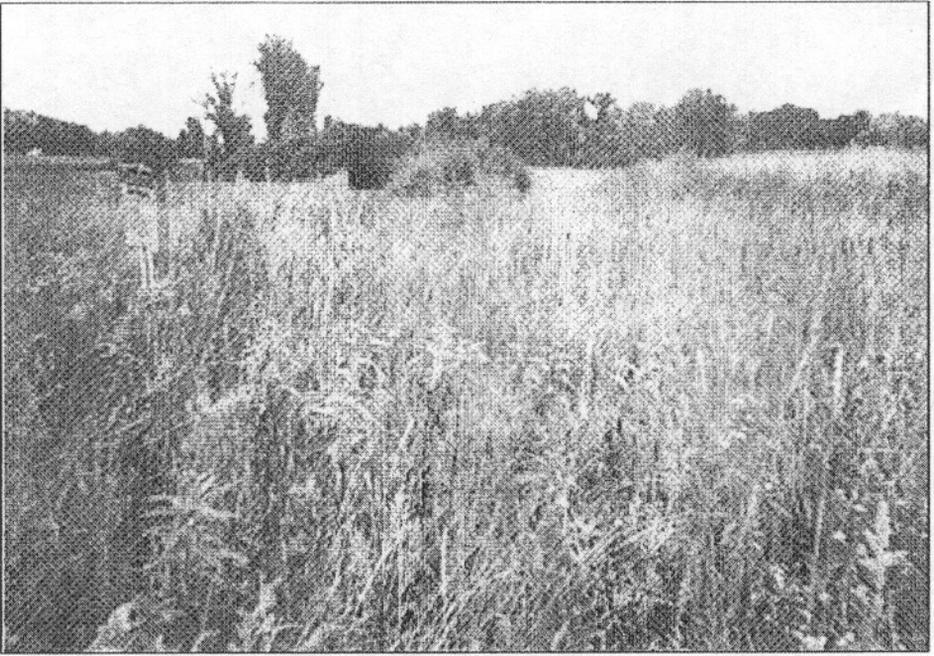


Photo 13: Looking northwest at Wetland A taken from pipeline crossing at west property line. Note I-35 to the left.

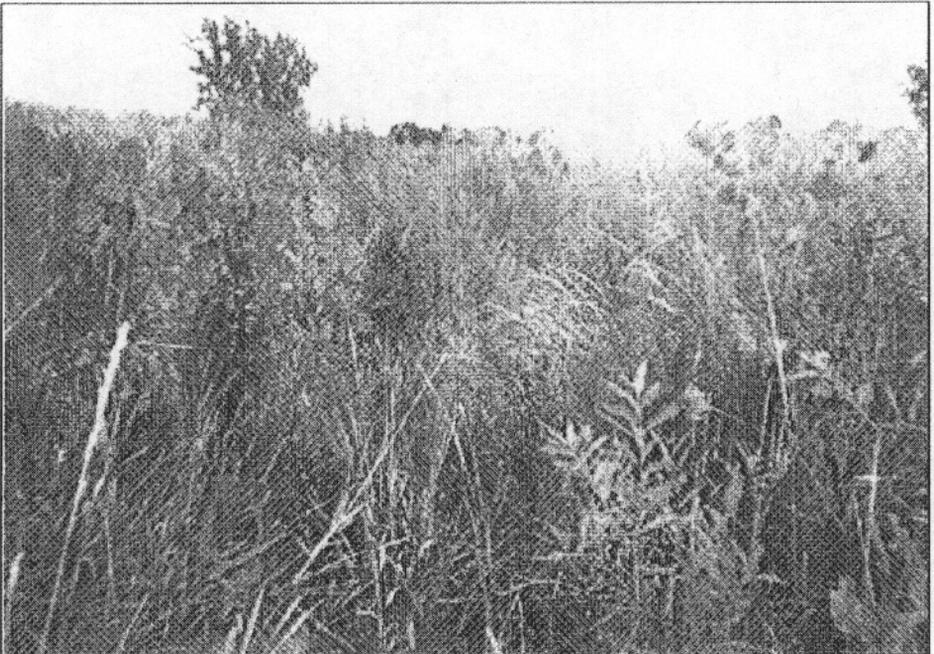


Photo 14: Looking southeast along drainageway as it leaves Wetland A.

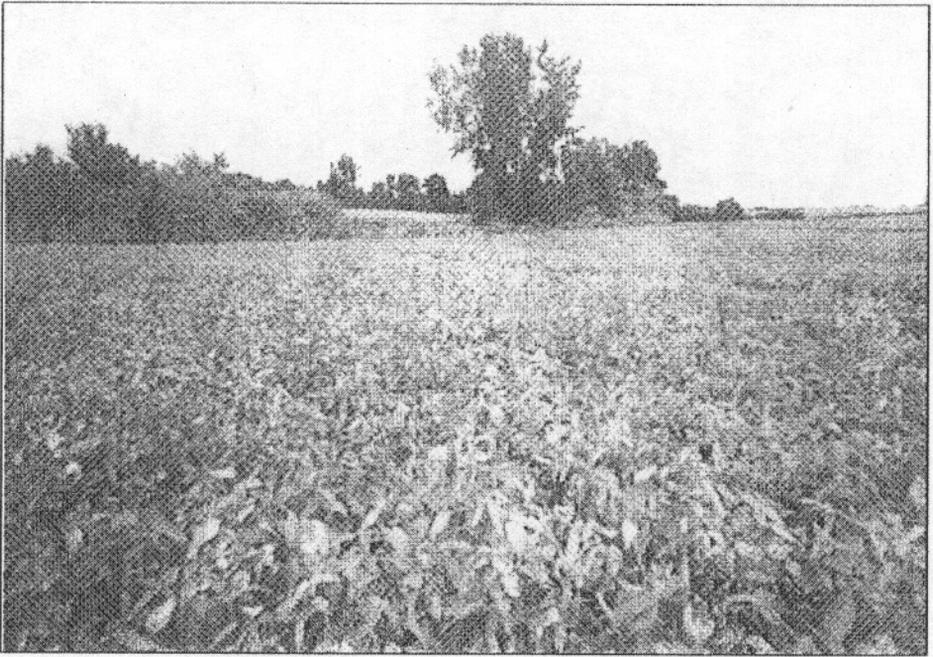


Photo 17: Looking northeast at Wetland D. Photo taken from the southwest quadrant of the subject property. Note the soybean field up to the edge of the drainageway.



Photo 18: Looking northwest at Wetland D. Photo taken near west property line. Note soybean field up to edge of sandbar willow.

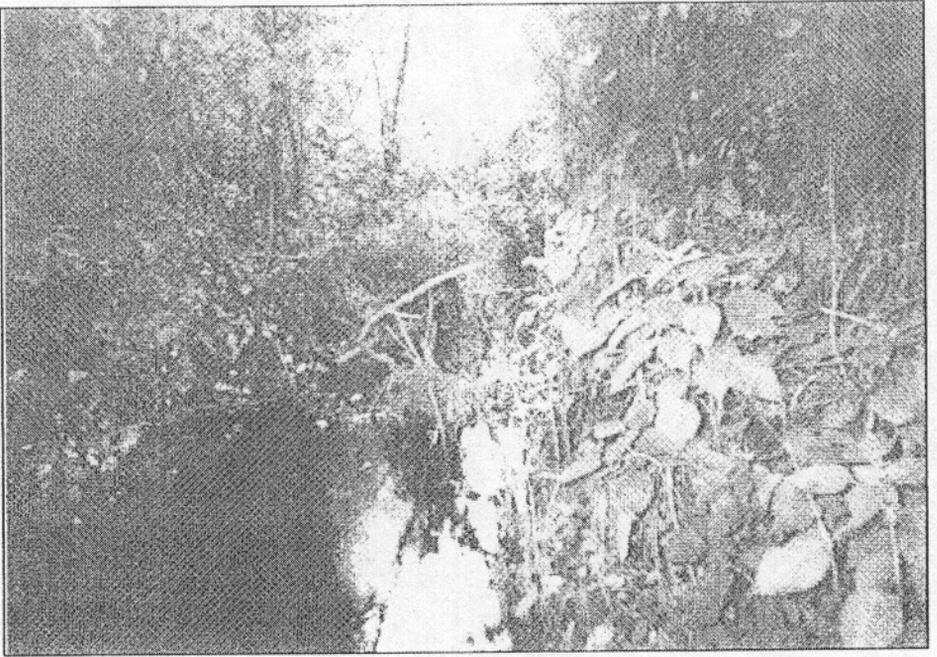


Photo 19: Looking west (upstream) at main drainageway near west property line.



Photo 20: Looking southwest at drainageway along west property line. Photo taken near the confluence with main drainageway.

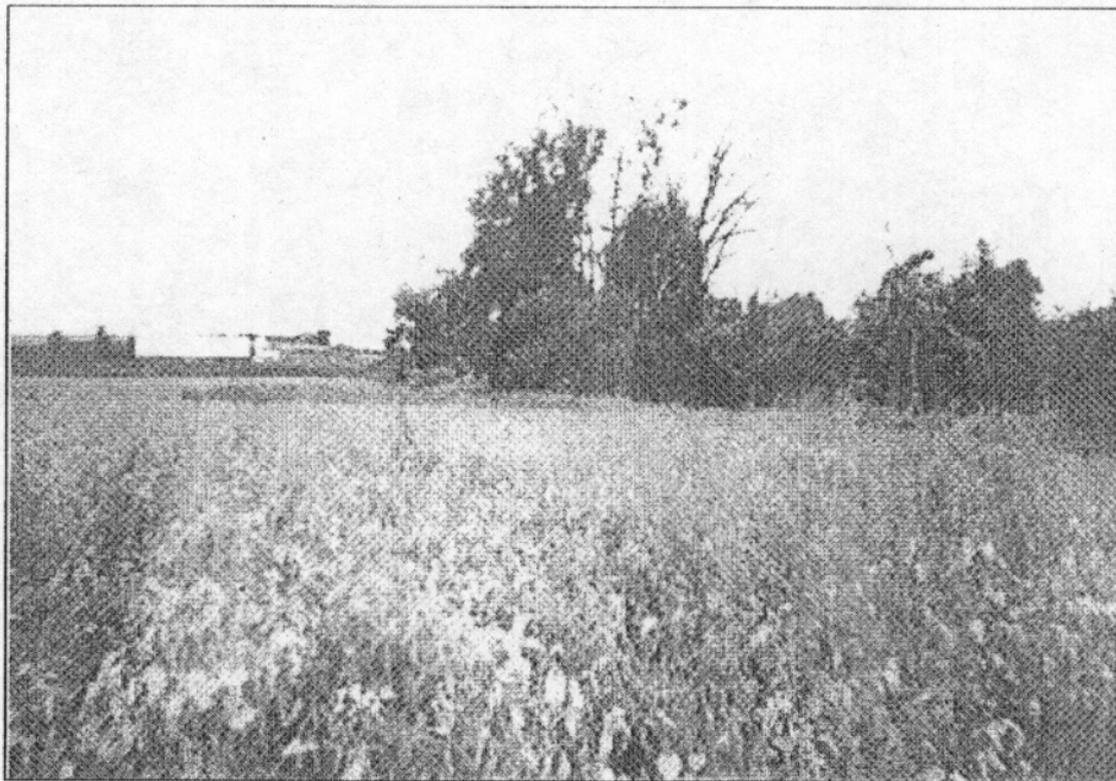


Photo 21: Looking west with drainageway along the southern property line to the right. Photo taken from adjoining soybean field to the south of the south property line.